

INTERPRETATION AND PRESENTATION OF
NATURAL AND CULTURAL HERITAGE SITES:
ENVIRONMENTAL DESIGN PROJECT FOR GÖREME OPEN AIR MUSEUM

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE IN RESTORATION
IN
RESTORATION IN ARCHITECTURE

SEPTEMBER 2012

Approval of the thesis:

**INTERPRETATION AND PRESENTATION OF
NATURAL AND CULTURAL HERITAGE SITES:
ENVIRONMENTAL DESIGN PROJECT FOR GÖREME OPEN AIR MUSEUM**

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ABSTRACT

INTERPRETATION AND PRESENTATION OF NATURAL AND CULTURAL HERITAGE SITES: ENVIRONMENTAL DESIGN PROJECT FOR GÖREME OPEN AIR MUSEUM

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September 2012, 248 pages

The main subject of the thesis is “interpretation” and “presentation” of cultural and natural heritage sites which is an important phenomenon providing sustainability and protection of the heritage sites.

Interpretation and conservation are tightly associated to each other. Individuals will learn more about the heritage site by the help of interpretation and as a result of understanding; they will have an intention to protect the historic site more; and protection will ensure continuity of the site.

Interpretation and presentation of heritage sites is put into the words in Turkish Legislation by the definition of “Environmental Design Project” in `Amendment Act No. 5226 Concerning to Revision of Legislation Called as Law Concerning to Conservation of Natural and Cultural Entities` in 2004. In the legislation, it is stated that Environmental Design Projects which propose strategies for effective presentation, control visitor use, provide promotion and advertisement, solve problems emerged as a result of current use and circulation and answer the needs of historic sites by contemporary tools and methods must be prepared for each heritage site in Turkey.

Therefore, the aim of this thesis is to define principles for effective interpretation and presentation on the selected case according to analysis and evaluations and then propose brand new comprehensive and complementary Environmental Design Project.

The case selected in the thesis for the proposition of Environmental Design Project is Göreme Open Air Museum – GOAM in Cappadocia which is Turkey’s third most visited open air museum after Ephesus in İzmir and Hierapolis in Denizli. The two main reasons for the selection of GOAM are absence of comprehensive and complementary Environmental Design Project in GOAM and insufficiency of current interpretive facilities and visitor services presented in the museum as indicated in the decisions of Nevşehir Regional Council for Conservation of Cultural Entities.

Focusing on the aim, thesis is structured in three parts which are interconnected to each other as the theoretical background of the interpretation and presentation in the world and in Turkish legislations, analysis and evaluation of the selected case and finally preliminary decisions and project proposal.

To conclude, “Environmental Design Project” is an important tool for understanding the significance of the museum and providing easygoing and enjoyable visit for the museum visitors according to the values, problems and potentials of GOAM. In that respect, proposing environmental design project is critical in order to satisfy visitor needs during their museum visit and provide safeguarding of GOAM.

Keywords: Göreme Open Air Museum, Interpretation, Presentation, Environmental Design Project

Öz

DOĞAL VE KÜLTÜREL MİRAS ALANLARININ YORUMLANMASI VE SUNUMU: GÖREME AÇIK HAVA MÜZESİ ÇEVRE DÜZENLEME PROJESİ

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Eylül 2012, 248 sayfa

Bu tezin ana konusu kültürel ve doğal miras alanlarının sürekliliğini ve korunmasını sağlayan önemli bir girdi olan “yorumlama” ve “sunum”dur.

Yorumlama ve koruma birbiri ile sıkı bir ilişki içindedir. Bireyler yorumlama aracılığıyla miras alanları hakkında daha fazla bilgi edinir, bu edindikleri bilgiler ışığında alanı daha iyi anlar ve miras alanlarının korunması için daha fazla çaba gösterir. Sonuç olarak, koruma ile de miras alanlarının sürekliliğini sağlar.

Miras alanlarının yorumlanması ve sunumu Türkiye Cumhuriyeti yasalarına ‘5226 Sayılı Kültür ve Tabiat Varlıklarını Koruma Kanunu ile Çeşitli Kanunlarda Değişiklik Yapılması Hakkındaki Kanun’ kapsamında tanımlanan “Çevre Düzenleme Projesi” ile 2004 yılında girmiştir. Yasada, miras alanlarının ziyaretçilere etkili biçimde sunan ve tanıtımını sağlayan, mevcut kullanım ve dolaşımdan kaynaklanan sorunları ziyaretçi kullanımını kontrol ederek çözen ve bunu teknolojik gelişmelerin gerektirdiği donatılarla yapan Çevre Düzenleme Projelerinin Türkiye’deki her miras alanı için hazırlanması gerekliliği vurgulanmıştır.

Bu nedenle, tezin amacı etkili sunum ve yorumlama için seçilen alanda yapılan analiz ve değerlendirmeler ışığında ilkeler tanımlamak ve bu ilkeler doğrultusunda kapsamlı ve bütünüleyici bir Çevre Düzenleme Projesi hazırlamaktır.

Bu tez çalışması için seçilen alan İzmir’deki Efes ve Denizli’deki Hierapolis’ten sonra Türkiye’nin en çok ziyaret edilen üçüncü açık hava müzesi olan Kapadokya’daki Göreme

Açık hava Müzesi'dir. Alan çalışması için Göreme Açık hava Müzesi'nin seçilmesinde iki ana neden vardır. Bunlardan ilki, kapsamlı ve bütüncül bir Çevre Düzenleme Projesinin alan için önerilmemiş olmasıdır. İkincisi ise mevcut sunum olanaklarının ve ziyaretçi servislerinin yetersiz olması ve bu yetersizliğin Nevşehir Kültür Varlıklarını Koruma Kurulu'nun kararlarında sıkça dile getirilmesidir.

Bu amaçla, tez birbirlerine bağlı üç bölümden oluşmaktadır. Bu bölümlerden ilki yorumlama ve sunumun Dünya'daki ve Türkiye'deki teorik geçmişi. İkinci bölüm tez için seçilen alanın analizini ve değerlendirmesini içerir. Son bölümde ise seçilen alan için ön ilkelerin geliştirilmesi ve proje önerisi yer alır.

Sonuç olarak, Göreme Açık hava Müzesi'nin değer, sorun ve potansiyelleri baz alınarak hazırlanan Çevre Düzenleme Projesi, alanın önemini anlamak ve ziyaretçilere rahat ve keyifli bir ziyaret sunmak için önemli bir araçtır. Bu nedenle, tez kapsamında geliştirilen Göreme Açık hava Müzesi Çevre Düzenleme Projesi önerisi, ziyaretçilerin ziyaretleri sırasında ihtiyaçlarını karşılamak ve alanın korunmasını sağlaması açısından önemlidir.

Anahtar Kelimeler: Göreme Açık hava Müzesi, Yorumlama, Sunum, Çevre Düzenleme Projesi

To my family
and
To the memory of my grandmother Makbule Özçakır

ACKNOWLEDGEMENTS

I express my deepest gratitude to my supervisor, Assoc. Prof. Dr. Neriman Şahin Güçhan for her endless support and guidance throughout the thesis research.

I also thank to the jury members, Inst. Dr. Nimet Özgönül, Assist. Prof. Dr. Güliz Bilgin Altınöz, Assoc. Prof. Dr. Gülsüm Tanyeli and Conservation Architect Yavuz Özkaya for their constructive criticism and suggestions. I also would like to express my gratitude to Assoc. Prof. Dr. Emre Madran and Inst. Dr. Fuat Gökçe for their valuable criticisms during the preliminary jury meetings. I am also indebted to Mevlüt Çoşkun and officers of Nevşehir Regional Council for Conservation of Cultural Entities for allowing me to use archival material.

I would like to thank to Derya Fidan, İlker Teker, Azize Elif Sudan, Mesut Dinler, Ferayî Öztürk, Duygu Tüntaş and Leyla Etyemez for their support and peerless companionship.

Finally, my parents, Nursen and Neşet Özçakır, and my sister Özge Makbule Özçakır deserve the greatest thanks for their infinite support, patience and generosity in every aspect.

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ABBREVIATIONS

EDP: Environmental Design Project

GOAM: Göreme Open Air Museum

NCCCE: Nevşehir Council for Conservation of Cultural Entities

PAP: Petra Archaeological Park

CHAPTER 1

INTRODUCTION

In a simplest way, interpretation is the action of explaining the meaning of something.¹ In the field of conservation, the definition should be expanded as “the action of explaining the meaning of natural and cultural resources in order to ensure access, understanding and continuity of these resources using personal and non-personal methods”. In addition to this definition, interpretation is considered as a comprehensive phenomenon that includes visitor management, on site activities and publications due to complex problems of heritage sites today.

Tilden indicates in his book ‘Interpreting our Heritage’, there is a strong interrelationship between “interpretation, “understanding” and “protection”. Through effective interpretation, visitors’ experience will be more enjoyable and rewarding. Such enjoyable and rewarding experience will encourage visitors’ efforts for understanding the site. After understanding the site, visitors will start to care about the heritage site with its wider cultural context and visitors develop their interest in the built heritage and support its conservation (Table 1).

Table 1 Interrelationship between interpretation, understanding and protection. Source: Knudson M. Douglas, Cable T. Ted, Beck Lerry, Interpretation of Cultural and Natural Resources, Venture Publishing Inc., Cato Avenue, 2003. p.108



Consequently, interpretation program is a must in order to ensure conservation of the heritage sites as mentioned above. Without effective interpretation program, visitors will

¹ Definition of interpretation - Oxford Dictionaries (British & World English). (n.d.). *Oxford Dictionaries Online*. Retrieved September 2, 2012, from <http://oxforddictionaries.com/definition/interpretation?q=interpretation>

have difficulties connecting to heritage site, they do not understand the site and so they do not spend efficient time there. If opportunities that encourage visitors to connect the heritage sites – which are facilities with personal and non-personal modes – are provided within interpretation program; visitors will spend more time in heritage site so they both provide economic development for the site and care for the protection of the site.

Besides these two personal and non-personal interpretation modes, National Park Service of United States categorizes interpretive methods into five as follows²:

1. **Personal services:** guided trails, on-site education programs
2. **Publications:** books, leaflets, maps, brochures, trail guides
3. **Exhibits:** museum exhibits, signs, waysides
4. **Audio-visual Presentations:** films, video, audiotapes, computerized programs
5. **Outreach services:** heritage education, national programming, internet interpretation, outreach education programs

According to these five categories, the visitor's experience in heritage site starts before visitor's arrival to the site. Similarly, visitor experience does not end when he/ she leaves the site.³ So that, interpretive plan should be comprehensive and include strategies for before and after site visit.

Despite the fact that interpretation has vital importance for the heritage sites in order to ensure their protection and sustainability, comprehensive interpretation plans or programs for heritage sites are rarely developed in Turkey. Regulation called as

² Knudson, D. M., & Cable, T. T. (2003). Chapter 2: Who Offers Interpretation?. *Interpretation of cultural and natural resources* (2nd ed., p. 43). State College, Pa.: Venture Pub..

³ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPR) Interpretive Plan For Petra Archaeological Park* (p. 27). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

*'Amendment Act No. 5226 Concerning to Revision of Legislation Titled as Law Concerning to Conservation of Natural and Cultural Entities'*⁴ in Turkey emphasized that preparation of Environmental Design Project for each and every historic site is a must in order interpret the significance of heritage site and provide visitor facilities there. While interpretation programs are provided by legislations and applied for each historic site of United States of America by National Park Service and United Kingdom by English Heritage, issue of interpretation is problematic in Turkey.

1.1. PROBLEM DEFINITION AND REASONS FOR SELECTING THE SITE

There is a growing interest in interpretation of natural and cultural sites due to rapid increase of cultural tourism all over the world today. Besides rapid increase of cultural tourism, visitors' demands show similarities with current trends. Visitors want to understand the unique features of the heritage sites and spend enjoyable and rewarding time during their excursion. Such interest of visitors is also come out by the visitor questionnaire that is conducted in Göreme Open Air Museum by the author.

Interpretation and presentation of natural of cultural resources have been discussed for more than a century and various projects with various tools and methods are implemented in different countries. Positive consequences of effective interpretation such as economic sustainability of the site by explaining the significance of site to visitors, repeated visitation and spending more time in heritage site is exemplified in the case of Old Davidsonville State Park in the United States. This state park is good example of positive consequences of effective interpretation and power of interpretation in transforming the heritage site.

Old Davidsonville State Park in Arkansas is a small historic site with river access, fishing lake, camp sites, and visitor center that interprets history and significance of site and souvenir shops. Davidsonville – which is important place for Arkansas due to housing post office, two-storey court house, and first land office – was abandoned in 1830. Until 1995, when Wes Field was assigned as fulltime interpreter at the park, the state park was also almost abandoned and began not to attract visitors likewise. Wes Field proposed special events, living history, worked with local schools for education programs in order to make Davidsonville popular attractive place for visitors as its old times.

⁴ For more information on current legal status in Turkey, see 2.1. Background of the Concept.



Figure 1 Old Davidsonville Park. Source: <http://www.arkansasfirewise.com>, last accessed in 03 September 2012

As a result of presented opportunities, number of programs increased from 22 to 109 in one year, and park attendance increased from 28,342 to 79,119 and income \$7,404 to \$23,522.⁵

Increasing number of visitors, uncontrolled use of them and emerging new technologies in interpretation lead to discussions on the role and tools of interpretation. Increasing number visitors and uncontrolled use in heritage site cause rapid deterioration of site. In that respect, visitor management should be considered in the scope of interpretive program. Besides visitor management, new tools should be taken into account in effective interpretive program in order to present heritage site to visitors in enjoyable and rewarding manner.

Although there are several attempts in order to interpret heritage sites, satisfy visitor needs and provide safe and enjoyable visit in heritage sites in Turkey, very few comprehensive interpretive plans consisting on-site and off-site facilities such as visitor center, museum trail, interpretive panels, web sites, guides etc. has implemented. Legal regulation called as '*Amendment Act No. 5226 Concerning to Revision of Legislation Called as Law Concerning to Conservation of Natural and Cultural Entities*' emphasized that there is a need for comprehensive and complementary "environmental design projects" for each and every heritage site in Turkey in order to control the visitor use and increase visitors' experiences by the use of effective tools during their visit. While it is stated that environmental design project is defined as a part of comprehensive

⁵ Beck, L., & Cable, T. T. (2002). *Interpretation for the 21st century: fifteen guiding principles for interpreting nature and culture* (2nd ed., p. 135). Champaign, IL: Sagamore Pub..

management plan of the heritage sites in the current Turkish legislation called as *'Amendment Act No. 5226 Concerning to Revision of Legislation Called as Law Concerning to Conservation of Natural and Cultural Entities'*, environmental design projects are prepared apart from management plan in case of necessities. As a result of interpretation problem in Turkey, comprehensive interpretation program considering on-site and off-site interpretive opportunities by keeping in mind that visitor's experience of heritage site starts before his/her arrival to museum and does not end after his/her leave from site.

In the scope of this thesis, Göreme Open Air Museum located in the center of Cappadocia is chosen as case study in order to propose comprehensive interpretation plan. Göreme Open-Air Museum is Turkey's third most visited open-air museum after Ephesus in İzmir and Hierapolis in Denizli with 778,010 visitors in 2010.⁶ Göreme Open Air Museum is located in the boundaries of Göreme National Park and Rock Sites of Cappadocia World Heritage Site which is one of the 27 natural and cultural properties – on the other words, mixed property – in the world. According to UNESCO World Heritage Center, Göreme National Park and Rock Sites of Cappadocia represents one of the unique masterworks of human's creative intellect as a result of inhabitants' interrelationship with nature by excavating network of caves, residences, dwellings, places of worships dating back to 4th century in such a spectacular landscape.⁷

Göreme Open Air Museum is composed of two parts (Figure 6). The first one is the area defined by high rock block formations at the south and the second part of museum is the open area at the north that vehicular road between Göreme and Ortahisar passes through. In the first part of GOAM, which also constitutes the paid section of museum that the visitors have to pay entrance fee and buy ticket to enter, rock cut spaces carved into rock blocks are located except Tokalı Church. Moreover, current visitor facilities are mostly located in the paid section of GOAM as Museum Shop, Ticket Booth, WC and fountain. In the second part, there are two vehicular parks located on the vehicular road between Göreme and Ortahisar. In the vehicular park located at the northwest of the

⁶ 2010 Yılı Müze ve Örenyeri Ziyaretçi İstatistikleri. (n.d.). *Kültür ve Turizm Bakanlığı DÖSiMM Müze ve Örenyeri İstatistikleri*. Retrieved September 2, 2012, from <http://dosim.kulturturizm.gov.tr/TR/Genel/BelgeGoster.aspx?F6E10F8892433CFFAAF6AA849816B2EFA>

⁷ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). *UNESCO World Heritage Centre*. Retrieved September 2, 2012, from <http://whc.unesco.org/en/list/357>

museum, there are souvenir shops and cafés. Besides shops and cafés in vehicular park, there are shops located adjacent to paid entrance of GOAM.



Figure 2 Göreme Open Air Museum. Source: <http://www.muze.gov.tr/>, last accessed in 25 August 2012

Several projects are proposed in order to improve visitor experiences and satisfy needs of visitors during their site visit in Göreme Open Air Museum since museum opened its doors to public as an open air museum in 1956. Some of these projects are comprehensive planning and environmental design projects that develop strategies and decisions for Göreme National Park and Göreme Open Air Museum, but none of these comprehensive projects are completely implemented.

There are two comprehensive projects prepared for GOAM: the first project is “Long Term Development Plan for Göreme National Park” proposed in 1971 and the second one is “Environmental Design Project for Göreme Open Air Museum” in 1991. The former is comprehensive plan developing strategies for whole Göreme National Park and also for Göreme Open Air Museum due to being an integral part of National Park. The latter is comprehensive environmental design project which aims to arrange pedestrian circulation in a way that improve perception of historical features and values of museum, propose new vehicular park and service facilities in park, design open and semi-open areas for resting purposes, and improve current visitor facilities such as museum shop and ticket booth.

While the environmental design project is not fully implemented, vehicular park is relocated in order to reduce vibrations that damages rock blocks by vehicular traffic, pavements of visitor routes and vehicular/ pedestrians roads are changed in the scope of the project in 1997. Besides the Environmental Design Project, visitor decks inside rock cut spaces are installed to rock cut spaces in order to reduce erosion of ground surfaces caused due to rapid visitor use and wooden doors are located at the entrances of rock cut spaces that are in visitor use.⁸ All these projects and plans are mentioned in detail in *3.3. Studies on Interpretation and Presentation of Göreme Open Air Museum*.

After 1997, several interventions range from construction of new museum shop to design of information panels are also done in order to improve physical environment of museum and increase visitor experiences but these interventions are not done in complementary manner. On the contrary to all these interventions conducted in order to improve visitor facilities, GOAM is still insufficient in terms of them. Besides visitor facilities; visitor management and interpretive program is unsatisfactory in such an important open air museum.

To sum up, problems regarding visitor facilities, visitor management and interpretive program in GOAM reduce visitor experiences during their museum visit and this situation accelerates destruction of the natural and cultural values of museum. In that regard, such problems should be solved in order to emphasize the values of GOAM and reduce the destruction of museum values.

1.2. AIM AND SCOPE

As stated by National Park Service in United States, aim of the interpretive program as to understand and appreciate site values and their resources, develop public support for preserving park resources, present at least basic information and facilities to provide adaptation of visitors to site, and finally facilitate safe site visit and encourage minimum impact to site resources by visitors.⁹ Besides National Park Service in United States, the

⁸ Yenipinar, H. (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. In Olşen, K., et al (Ed.), *Müze çalışmaları ve Kurtarma Kazıları Sempozyumu: 24 - 26 Nisan 2000, Denizli*. (p. 207). (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. Ankara: Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayını.

⁹ Knudson, D. M., & Cable, T. T. (2003). Chapter 2: Who Offers Interpretation?. *Interpretation of cultural and natural resources* (2nd ed., p. 43). State College, Pa.: Venture Pub..

aim of *'environmental design project'*¹⁰ is declared in Turkish Legislations as protecting archaeological potentials of historic sites by controlling visitor use, providing promotion and advertisement of sites, solving problems emerged as a result of current use and circulation and satisfy the needs of historic sites by contemporary tools.

Current interpretation and presentation of Göreme Open Air Museum has several problems as mentioned also in the decisions of Nevşehir Council for Conservation of Cultural Entities. Moreover, solution of these problems is strongly advised in order to increase visitor experiences in GOAM by NCCNCE. This is because increase in visitor experiences will bring many positive consequences to the museum such as protection the natural and cultural values, and economical sustainability.

Accordingly, aim of this thesis is defined as preparing comprehensive and complementary "environmental design project" for GOAM by the use of emerging interpretive tools as a consequence of developing technologies by keeping in mind that "environmental design project" is a part of comprehensive management plan of the heritage site in upper scale. In the content of "GOAM Environmental Design Project", significance of museum will be interpreted to visitors by various tools, new buildings and open areas will be designed that satisfy visitor's needs, visitor use and their circulation will be controlled in order to maintain safe visit and ensure protection of natural and cultural heritage and finally providing economical sustainability of the site by offering longer visits in museum by the help of various activities.

Göreme National Park and Rock Sites of Cappadocia is a wide place covering 9,884 hectare area (Figure 3). While preparation of 1/25000 Environmental Arrangement Plan is on the agenda, it is difficult and time consuming to prepare comprehensive and complementary management plan for the whole world heritage site. While management plan is a must in order to prepare environmental design projects for heritage sites, Cappadocia has urgent focal problems in general regarding preservation, visitor use, management, monitoring etc. which have to be solved as soon as possible. Göreme Open Air Museum, which is the most visited historic site in Cappadocia, faces these problems in very intense manner.

¹⁰ In this legislation, 'Environmental Design Project' means 'Çevre Düzenleme Projesi'.

As mentioned above, preparation of conservation master plan and management plan in such a wide area take too long and postpone the solutions of the focal problems in the world heritage site. In the scope of the thesis, strategies directly related to conservation are not proposed as suggested in the definition of environmental design project to be prepared in all archaeological sites in the current Turkish legislations. On the contrary, strategies that consist of interpretation and presentation of GOAM are developed in the content of proposed environmental design project by keeping in mind that effective interpretation and presentation will ensure safeguarding of the museum and the edifices.

In the scope of the thesis, first conceptual background of heritage interpretation regarding international documents and environmental design project by giving references to Turkish legislations will be mentioned to understand basis of the subject. Then, selected case studies on effective interpretation are mentioned in order to comprehend current trends with methods and contemporary tools of interpretation. After case studies, general characteristics of Göreme Open Air Museum are stated. Geography and brief history of GOAM; location, roads and access to GOAM; surrounding center of attractions; and studies on interpretation and presentation of GOAM are mentioned within the general characteristics. Later, current state of Göreme Open Air Museum is analyzed under “open areas”, “built areas”, “accessibility”, “visitor density”, “current visitor practices and routes” and “management and security”. Next, current state of GOAM is evaluated and values, problems, potentials are defined by regarding analyses. Finally, preliminary decisions on open areas, built areas, visitor scenarios, interpretive activities etc. regarding interpretation and presentation of GOAM are revealed following evaluations.

1.3. METHODOLOGY

In this thesis, various research methods are used depending on the content of the chapters. These research methods and documents used in the thesis include literature review such as books and articles on this topic; field surveys conducted in two different times in GOAM; interviews with visitors and officers’ of GOAM; archival research on council decisions in Nevşehir Regional Council for Protection of Cultural Entities; legal documents such as acts and regulations; and finally aerial photos taken from General Command of Mapping and Google Earth.

This thesis is composed of three main sections according to their methods as required by the purpose of this study. First section is background of the concept belonging to second chapter of the thesis, second section is analysis and evaluation of current state and general characteristics of GOAM and surrounding environment referring to third and fourth chapters of the thesis, third and final section is preliminary decisions and project proposal which belongs to fifth chapter of the thesis.

The first section of the thesis focusing on background of the concept consists of conceptual background of interpretation and presentation of natural and cultural resources with selected case studies on historic sites having effective interpretation and presentation program. This chapter of the thesis is based on the literature review in the subject of interpretation of natural and cultural resources. In the scope of literature review, international charters, guidelines and publications are investigated in order to define heritage interpretation, explain contemporary tools and methods for effective interpretation and specify case studies for effective interpretation. In order to choose accurate cases from all over the world, selection criterias are defined as:

- to show similarities between Göreme Open Air Museum in terms of its geography and landscape it settles on; legal and administrative aspects of the site; scale; and finally its design and implementation process
- to be listed on World Heritage List
- to obtain sufficient information on selected case
- to have comprehensive interpretation plan whether it is implemented or not
- to show variety of alternatives in terms of its approach to problem of interpretation and use of different tools/ methods

Stonehenge, Avebury and Associated Sites, Petra Archeological Park and Mount Nemrut are chosen as case studies by giving references to these criterias. Stonehenge is chosen due to similar design and implementation process and similar problems regarding vehicular park and visitor center as Göreme Open Air Museum. Moreover, the area that Stonehenge covers is similar to Göreme Open Air Museum. Besides Stonehenge, Petra Archeological Park is chosen because of its noteworthy visitor management system, thematic and organized interpretive structure and similar geography it settles on. Finally Mount Nemrut is chosen due to similar legal and administrative aspects specific to

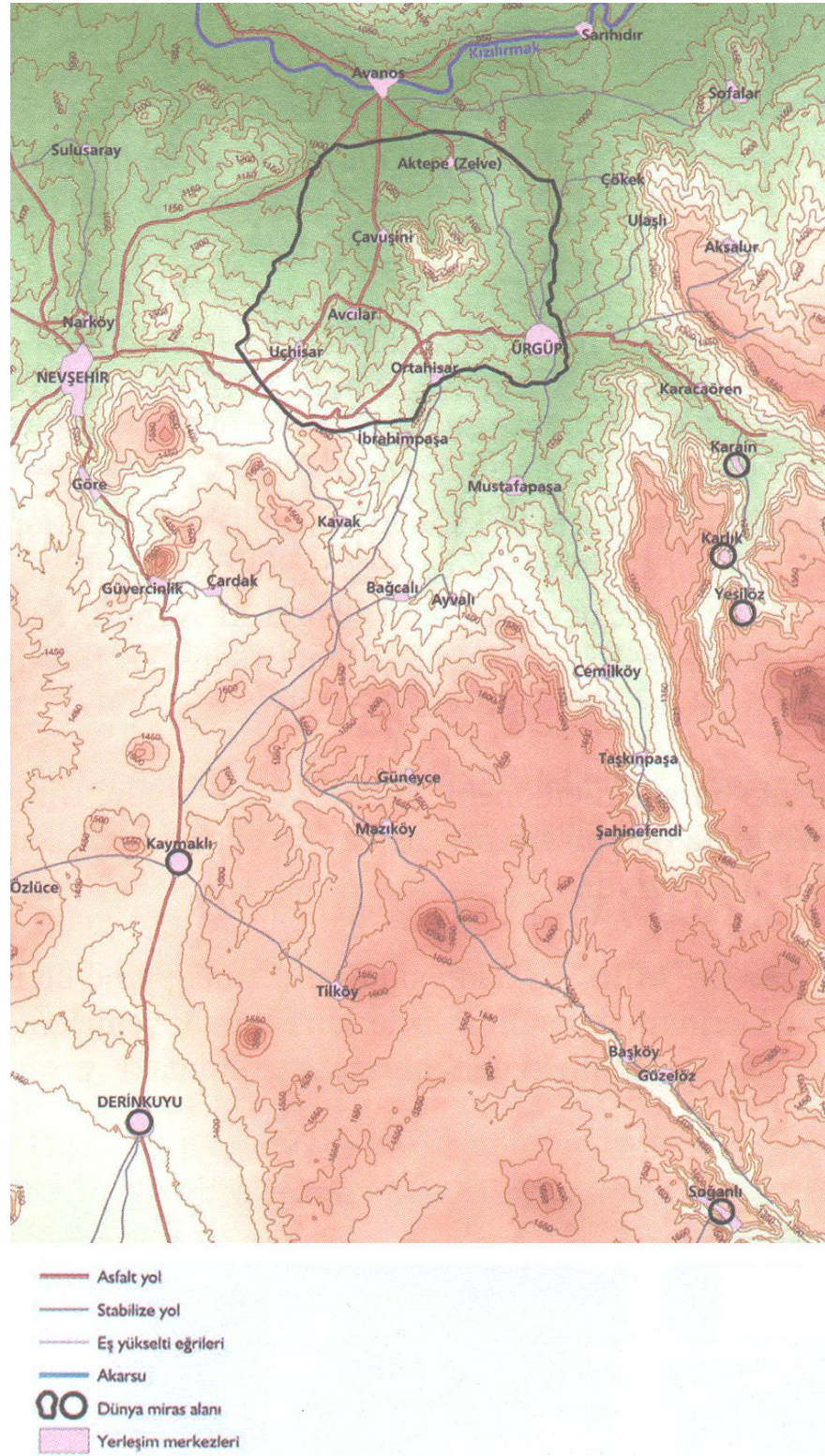


Figure 3 Boundaries of Göreme National Park and Rock Sites of Cappadocia World Heritage Site.
Source: *Türkiye'nin Dünya Miras Alanları. Koruma ve Yönetimde Güncel Durum*. Ankara: T.C. Kültür ve Turizm Bakanlığı, 2009. p.165

Turkey and remarkable project process starting from analysis of current state to “Environmental Design Project” proposal.

The second section of the thesis which refers to third and fourth chapters of the thesis consists of general information regarding history, geography and location of GOAM; previous studies conducted in the museum in order to improve interpretive facilities; analysis of current state under the titles of open areas, built areas, accessibility, visitor density, visitor practices, management, security and monitoring; and finally evaluation of current state of GOAM according to its values, problems and potentials. In this section of the thesis, various methods are used due to its multi-faceted content. First of all, literature review regarding history, geography and location of GOAM is conducted. Then, Google Earth Maps are prepared in order to illustrate location and boundaries of museum and indicate center of attractions near GOAM. Besides literature review, documents from archival research conducted in NCPCNE and aerial photos obtained from “General Command of Mapping” dating back to 1957, 1966, and 1992 are used in order to document previous studies carried out in the museum. Afterwards, current state of GOAM is analyzed and evaluated by giving references author’s site surveys conducted in 19 December 2010 and 3 December 2011. Within the scope of site survey, photographs of museum are taken; interviews with 16 visitors two of whom are foreign visitor¹¹ and eight officers¹² of GOAM are conducted; physical environment of GOAM is examined so as to understand general characteristics and current state of the museum; and practices of visitors are observed in order to understand their movement pattern. Visitor survey is conducted with artist, university students, software developer, teachers, and academicians. They are asked to answer questions about by which transportation mode they come to museum, whether they visit GOAM first time or not, types of interpretive tools they use during their visit, their thoughts about facilities presented in the museum and their satisfaction about their museum visit. In addition, interview with museum officers is done in order to understand management and security in GOAM by asking questions about administrative structure of museum, security problems and how to provide security in museum.

In order to represent the analyses and evaluations in the thesis, base maps are prepared by the use of various sources: aerial photograph of GOAM taken from Google Earth,

¹¹ Appendix A: Visitor Questionnaire Form

¹² Appendix B: Officer Questionnaire Form

Environmental Design Project prepared in 1991 by PROTA, plan of museum with the churches in the valley in Luciano Giovannini's book "Art of Cappadocia"¹³, several websites and author's observation during his site visit. In Figure 5, sources of all the lines which are drawn in the base map are indicated under two titles as "general layout of the site" and "rock cut spaces". The former, "general layout of the site", is drawn by the use of aerial photograph taken from Google Earth, observations of the author during his site survey and environmental design project prepared by PROTA. The latter, "rock cut spaces", are drawn mostly by Luciano Giovannini's book "Art of Cappadocia". The other sources which are used in order to draw "rock cut spaces" are environmental design project prepared by PROTA, and observations of the author during his site survey.

All these sources giving different information about the site are transferred to digital medium and juxtaposed by the use of various computer programs in order to obtain comprehensive base map which is presented in approximately 1/2000 scale in the thesis (Figure 4). Firstly, all these sources are juxtaposed in AutoCAD and drawn in this software. Then, Adobe Photoshop is used in order to color the base map and design the template. After the production of colored base map, Adobe Illustrator is used in order to illustrate analysis regarding open and built areas, accessibility and visitor practices and values, problems, potentials of GOAM.

Third and last section of the thesis which belongs to fifth chapter is preliminary decisions and "GOAM Environmental Design Project" proposal. Preliminary decisions including an architectural program are mentioned by giving references to analyses and evaluations for different features such as new buildings, open areas, visitor management and interpretive activities. After that, "Environmental Design Project" is proposed with drawings and 3D models. In addition, in-situ street furniture such as interpretive panels and sitting units are designed in complementary manner.

1.4. STRUCTURE OF THE THESIS

In the introduction part of the thesis, after describing interrelationships between "interpretation" and "conservation", definition of the problem and selection criteria for choosing Göreme Open Air Museum is mentioned first. After that, aim and scope of the thesis and its methodology is mentioned.

¹³ Giovanini, L. (1971). B: The Rock Settlements. *Arts of Cappadocia* (p. 73). Geneva: Nagel Publishers.

In the second chapter, conceptual background of interpretation and presentation of natural and cultural sites is mentioned by giving references to international documents, prominent figures in the field of interpretation, publications regarding interpretation and laws and regulations in Turkey. In the scope of conceptual background, principles of effective interpretation, contemporary tools and methods for effective interpretation and finally interpretation in Turkey and environmental design project in Turkish Legislation are mentioned. After a comprehensive overview of heritage interpretation and presentation, criteria for selection of case studies with effective interpretation and presentation program are stated and selected case studies are presented by giving references to their significance and past/ current/ future plans and projects.

In the third chapter, brief history and geography of Göreme Open Air Museum is mentioned firstly. After that, location, roads and access to GOAM with surrounding center of attractions are stated. Then, studies regarding interpretation and presentation of GOAM are mentioned. Later, general features and current state of GOAM is analyzed under the titles of open areas, built areas, accessibility, visitor density, visitor practices, and management and security.

In the fourth chapter, current state of GOAM is evaluated by giving references to values, problems and potentials of the site. In the fifth chapter, preliminary decisions are defined in order to highlight values of museum, solve problems and reveal the potentials of the site. After preliminary decisions, environmental design project for effective interpretation of GOAM with complementary actions such as visitor management and interpretive activities are proposed. Moreover, possible further studies are suggested on the interpretation and presentation of cultural and natural resources in the fifth chapter.

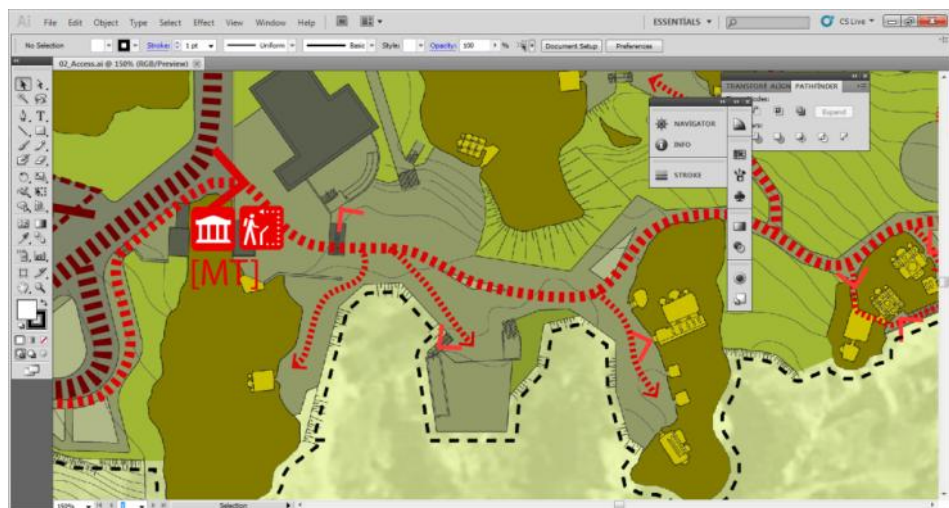
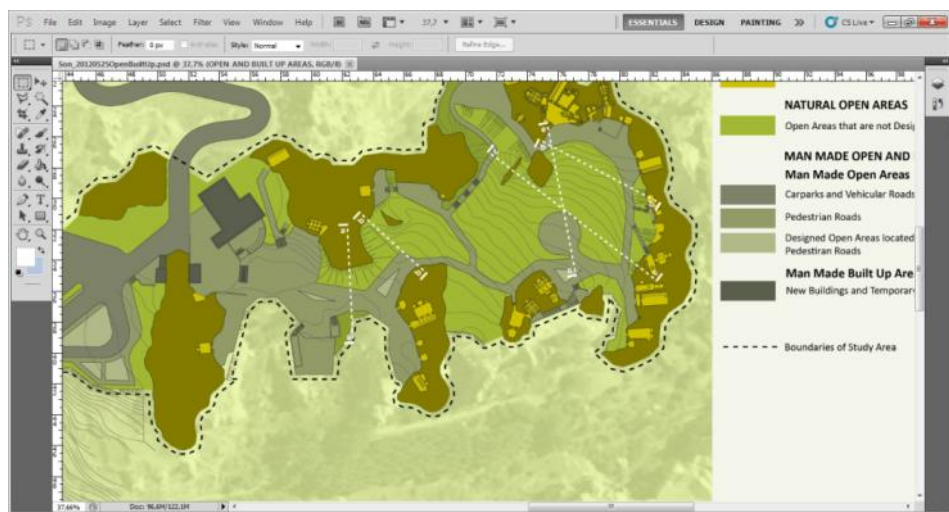
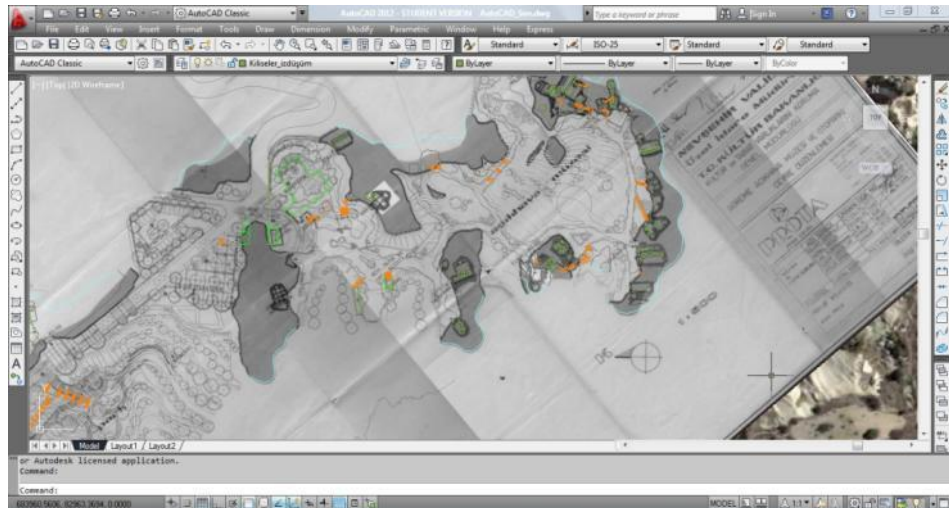


Figure 4 Various Computer Software which are used for the production of Analysis and Evaluation Sheets. Top: AutoCAD, Middle: Adobe Photoshop, Bottom: Adobe Illustrator

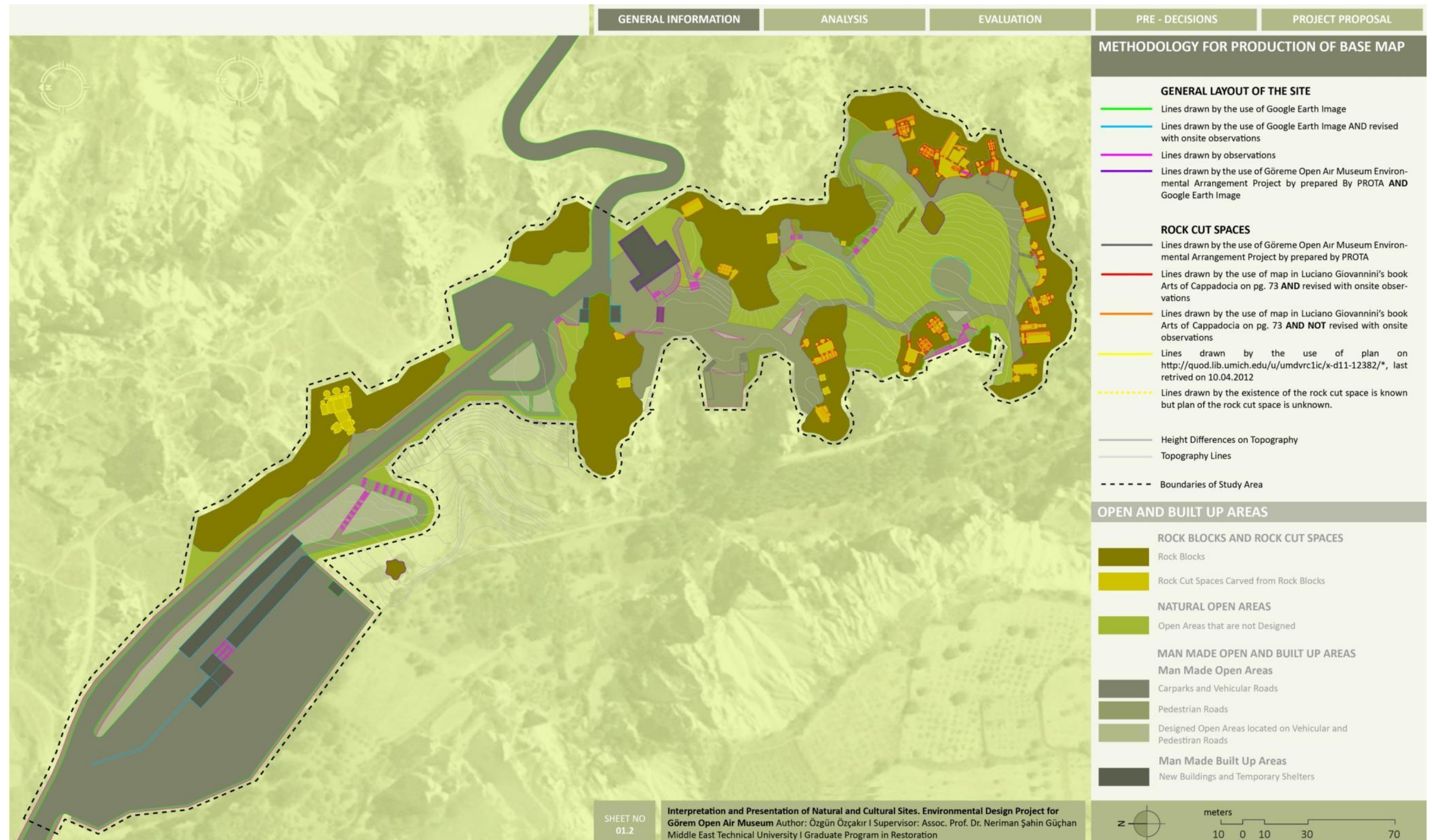


Figure 5 Methodology for Production of Base Map

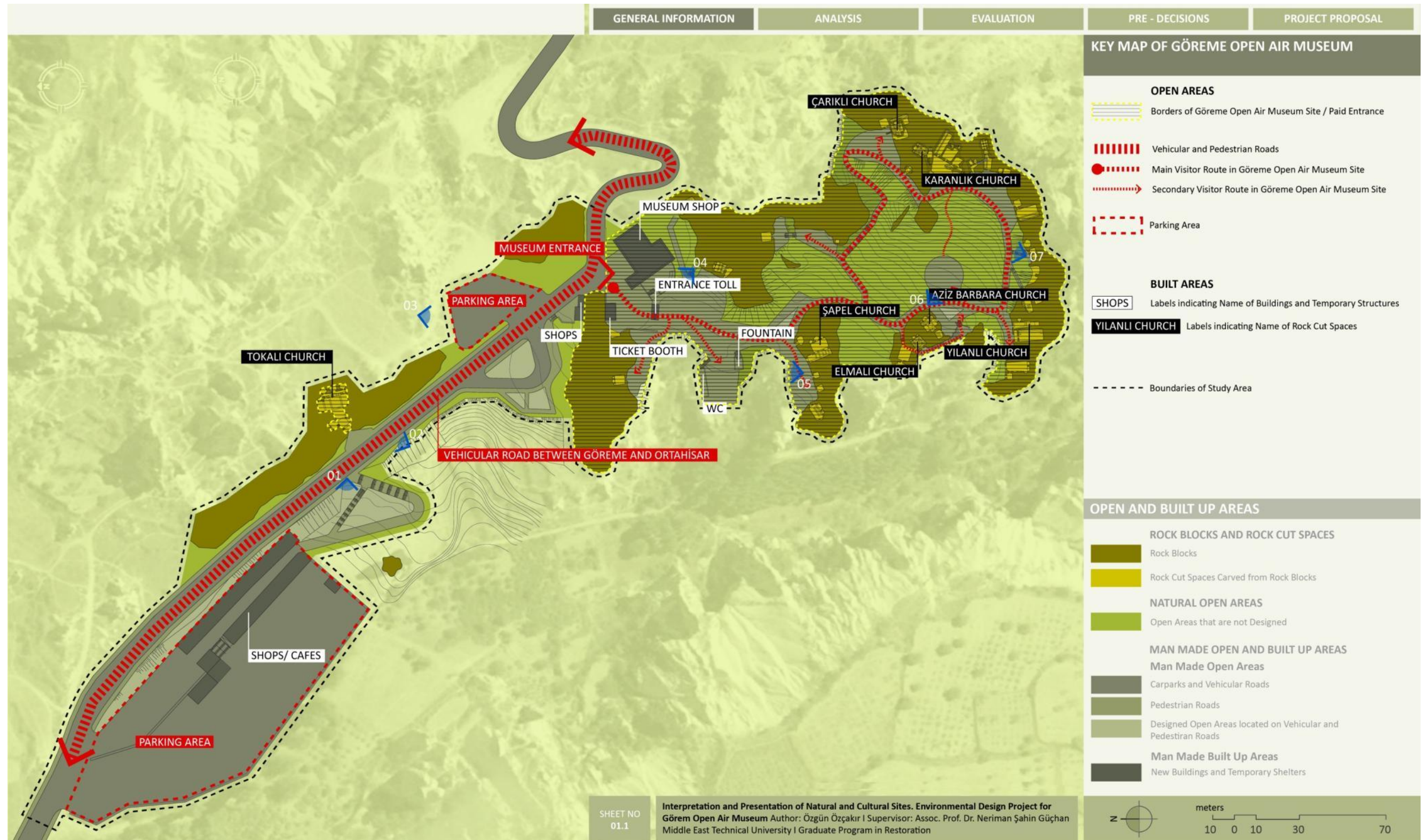


Figure 6 Key Map of Göreme Open Air Museum

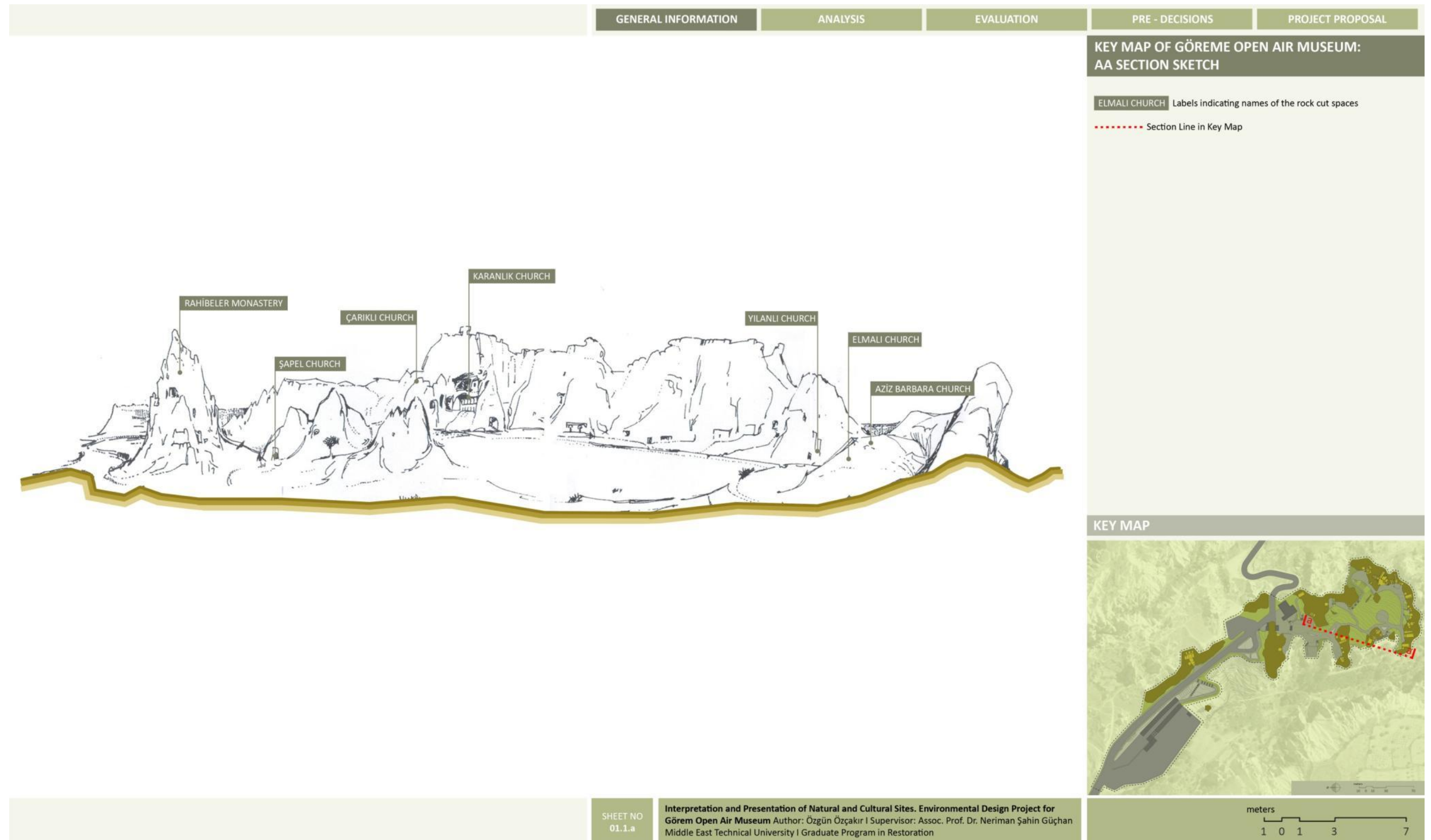


Figure 7 AA Section Sketch of Göreme Open Air Museum. Source: Giovanini, L. (1971). B: The Rock Settlements. *Arts of Cappadocia* (p. 73). Geneva: Nagel Publishers.

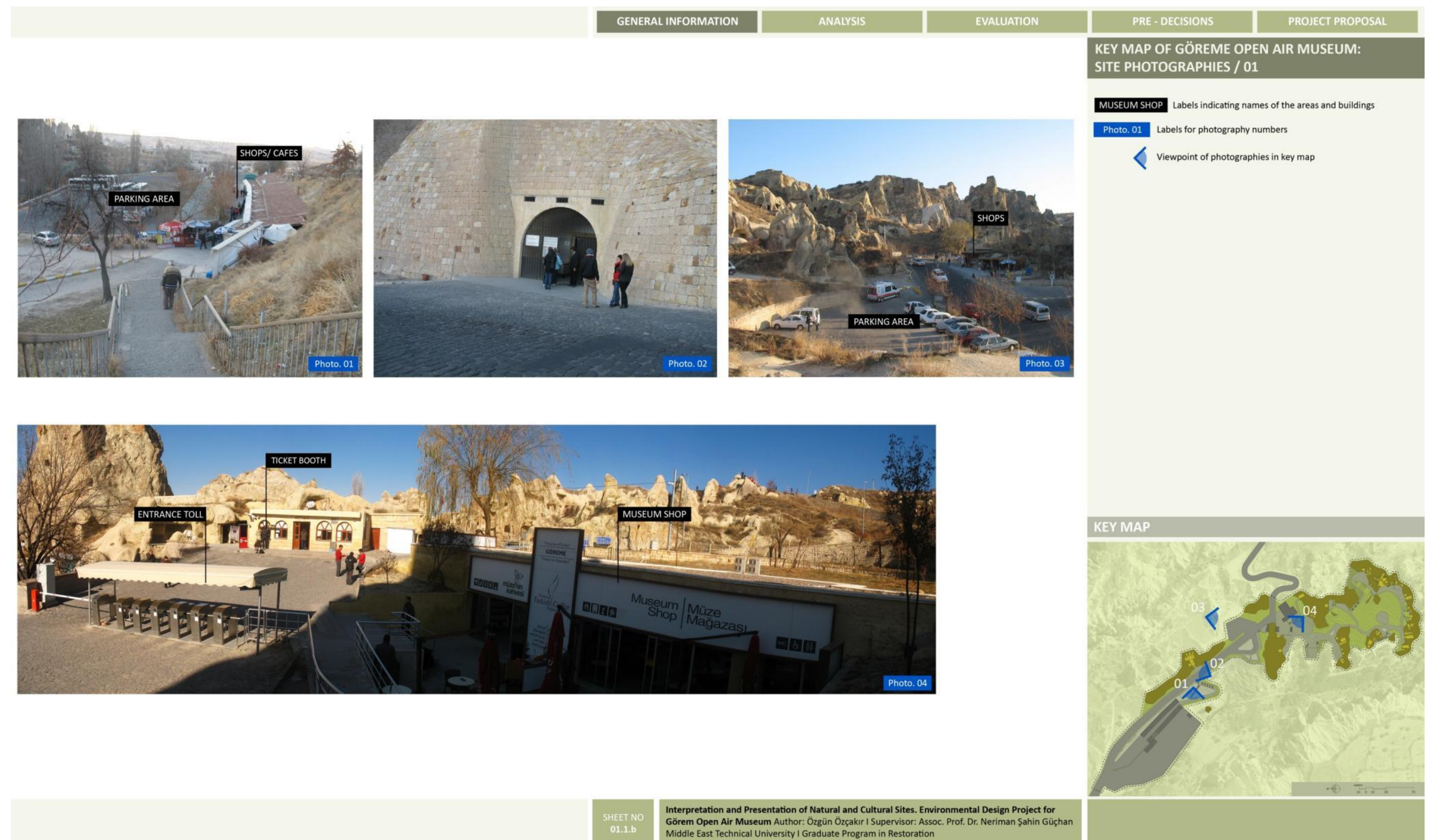


Figure 8 Site Photographs of Göreme Open Air Museum

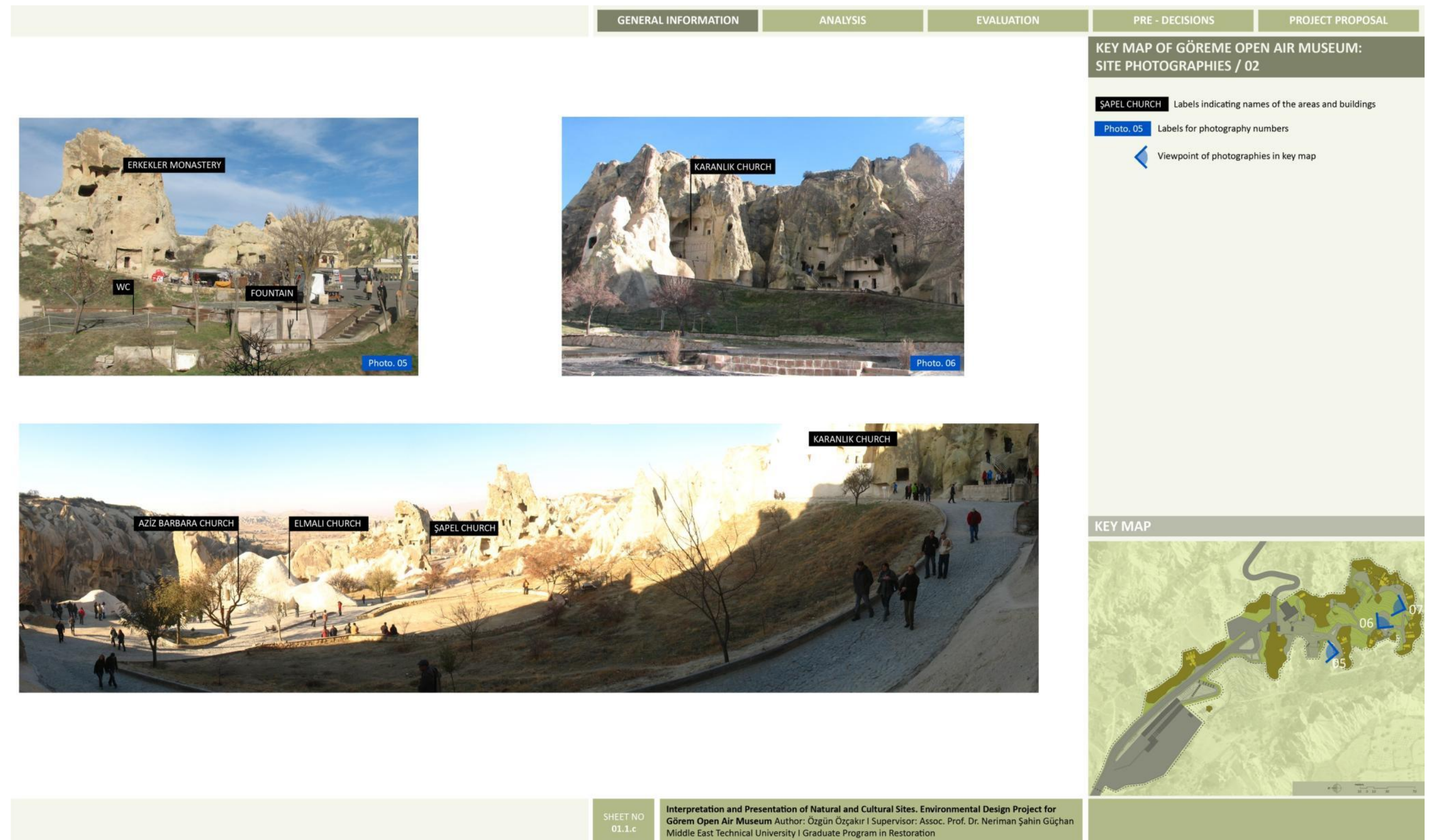


Figure 9 Site Phototographies of Göreme Open Air Museum

CHAPTER 2

BACKGROUND OF THE CONCEPT: INTERPRETATION AND PRESENTATION OF NATURAL AND CULTURAL SITES

Heritage interpretation is integral part of comprehensive management of the heritage sites as indicated in “ICOMOS Charter for the Protection and Management of the Archaeological Heritage” which is declared in 1990.¹⁴ In the seventh principle of the charter, it is stated that presentation and interpretation of the archaeological heritage to the public is crucial instrument in order to provide understanding of the need for its safeguarding. Besides “Charter for the Protection and Management of the Archaeological Heritage” that emphasize the role of heritage interpretation in a broader context; there are many charters, recommendations, and guidelines that focus on the importance of accurate and effective interpretation in the field of conservation as declared in the ICOMOS Ename Charter.¹⁵

In 1957, Freeman Tilden defines “heritage interpretation” in systematic manner as,

“Heritage interpretation is an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information.”¹⁶

Besides Freeman, interpretation is defined by scholars and associations dealing with heritage interpretation in similar manner. Some of these definitions are listed below:

¹⁴ Charter for the Protection and Management of the Archaeological Heritage. (ICOMOS 1990)

¹⁵ Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 5th Draft. (ICOMOS 2006)

¹⁶ Tilden, F., & Craig, R. B. (2007). Raw Material and Its Product. *Interpreting our heritage* (4th ed., p. 24). Chapel Hill: University of North Carolina Press.

National Association of Interpretation defined interpretation as “mission-based communication process that forges emotional and intellectual connections between the interests of the audience and meanings inherent in the resource”.¹⁷

Interpretation Canada explained interpretation as "any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site."¹⁸

Association for Heritage Interpretation says "Interpretation enriches our lives through engaging emotions, enhancing experiences and deepening understanding of people, places, events and objects from past and present." ¹⁹

Beyond all of these definitions mentioned above, the most comprehensive definition of interpretation belongs to **ICOMOS Ename Charter** which is first and only charter dedicated to interpretation and presentation of cultural and natural heritage. Charter defined interpretation as,

“Interpretation refers to the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage site. These can include print and electronic publications, public lectures, on-site and directly related off-site installations, educational programs, community activities, and ongoing research, training, and evaluation of the interpretation process itself.”²⁰

These definitions have emerged throughout the theoretical and practical development of interpretation starting from 1883 in which Wylie Camps conducted the first interpretive activities in Yellowstone National Park in United States. Subsequently, it is compulsory to mention theoretical and practical background of the subject in order to understand current issues in interpretation. In this chapter, first emergence of interpretation and then international documents regarding interpretation are mentioned. Besides

¹⁷ National Association for Interpretation. (n.d.). *National Association for Interpretation*. Retrieved September 3, 2012, from <http://www.definitionsproject.com/definitions/>

¹⁸ Interpretation Canada. (n.d.). *Interpretation Canada*. Retrieved September 3, 2012, from <http://www.interpcan.ca/new/>

¹⁹ Association for Heritage Interpretation. (n.d.). *Association for Heritage Interpretation*. Retrieved September 3, 2012, from http://www.ahi.org.uk/www/about/what_is_interpretation/

²⁰ Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 5th Draft. (ICOMOS 2006)

international documents, interpretation in Turkish legislations is stated by giving references the current legal status. Finally, selected case studies are presented in order to show different approaches in interpretation in respect to tools and methods indicated in theoretical and practical background of the subject.

2.1. CONCEPTUAL BACKGROUND

Despite the fact that heritage interpretation is defined by Freeman Tilden in systematic manner in 1957, “interpretation” practices in natural and cultural heritage sites date back to 1883.²¹ The Wylie Camps, which is private enterprise, conducted very first interpretation activities and presentation program in Yellowstone National Park in United States. In the scope of their interpretive program in Yellowstone National Park; The Wiley Camps provided illustrated guidebooks, guided tours, horseback touring and tent shelters so as to reveal meaning of park to the visitors, offer enjoyable site visit and satisfy visitor needs such as resting and eating during their visit in the park. In this interpretation program, guided tours are provided by interpreters who are selected carefully among geologists, high school teachers and college students in order to entertain and inform visitors during their excursion.²²

While Wylie Camps was commercial enterprise, the first scientific interpretive activities are conducted by American Naturalist John Muir. John Muir is prominent figure in heritage interpretation because of being first person to use the word “interpret” to explain his studies regarding presentation of Yosemite National Park in United States. Moreover, he is one of the first personal interpreters in the field of heritage interpretation. Besides Muir, Enos Mills – who calls himself as nature guide – was another important figure conducting many interpretation activities in national parks of United States of America.²³

²¹ Knudson, D. M., & Cable, T. T. (2003). Principles, Challenges, and Applications. *Interpretation of cultural and natural resources* (2nd ed., p. 107). State College, Pa.: Venture Pub..

²² *ibid.*

²³ Brochu, L., & Merriman, T. (2002). Exploring Our Roots. *Personal interpretation: connecting your audience to heritage resources* (p. 11). Fort Collins, Colo.: National Association for Interpretation.



Figure 10 Postcard of Wylie Camps. Source: <http://4.bp.blogspot.com/>, last access in 03 September 2012

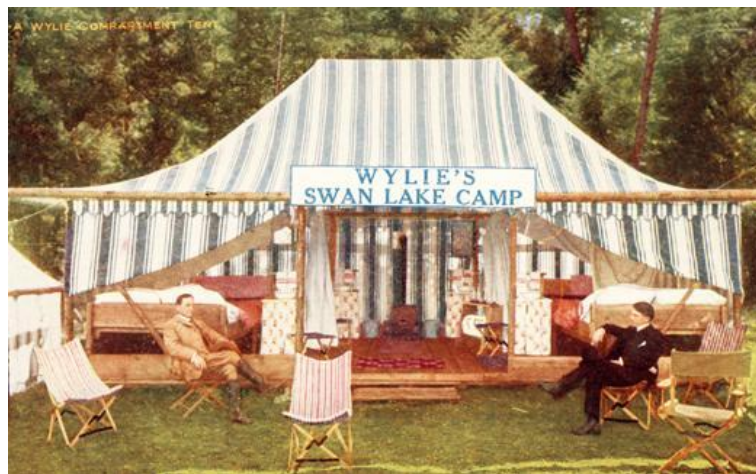


Figure 11 Postcard of Wylie Camps. Source: <http://3.bp.blogspot.com/>, last access in 03 September 2012

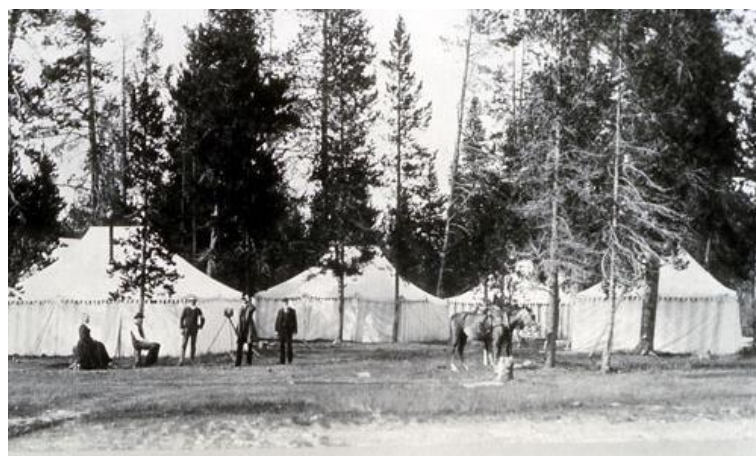


Figure 12 Photography of Tents in Wylie Camps. Source: <http://grandcanyonhistory.clas.asu.edu/>, last access in 03 September 2012

After Muir and Mills, interpretation of natural and cultural heritage is firstly put into words by Freeman Tilden – who is officer at National Park Service of United States of America –as an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information in his book “Interpreting Our Heritage” published in 1957 as a systematic manner.²⁴ Tilden describes six principles for effective interpretation of cultural and natural heritage. In the scope of these principles, methods for presentation of cultural and natural heritage, aim of the interpretation of natural and cultural heritage and difference between “absolute information” and “interpretation” is mentioned. Six principles of Freeman Tilden and their explanations are given below.

“Principle 1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.”

According to **Principle 1**, Interpretation must be related to visitors’ area of the interests in order to appeal them. Interests of various types of visitor should be taken into account for effective interpretation. For instance, demographics of visitors such as age, gender and educational level should be considered in interpretive planning because, each of the visitor groups’ needs may differ from each other. Moreover, international – domestic visitors are important because of the need for language translations.

“Principle 2. Information, as such, is not Interpretation. Interpretation is revelation based upon information. But they are entirely different things. However all interpretation includes information.”

Principle 2 claims that Information is the source of interpretation. Information should not be used directly for interpretation purposes. Information must be filtered and simplified where needed in order to make easier heritage site to understand for visitors.

²⁴ Tilden, F., & Craig, R. B. (2007). Interpreting our heritage (4th ed.). Chapel Hill: University of North Carolina Press.

“Principle 3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.”

Principle 3 mentions that, in the interpretive plan; all scientific, architectural, historical data should be melted in the same pot and re-interpreted in the new scenario. In this new story, different interpretive techniques should be used.

“Principle 4. The chief aim of Interpretation is not instruction, but provocation.”

Principle 4 declares that interpretation provides information for visitors and makes visitor understand the heritage. As a result of understanding the heritage, appreciation of the heritage will follow and throughout appreciation, protection of the heritage will result.²⁵

“Principle 5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase.”

According to **Principle 5**, interpretive plan should present the whole story of the historic site. Interpretation of a part of the whole story must be avoided for effective interpretation.

“Principle 6. Interpretation addressed to children (say up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.”

Principle 6 points out that different demographic groups should be considered during interpretation planning. Various interpretive activities may be provided for different each age group.

In 2002, Lerry Beck and Ted Cable added nine more principles on Freeman Tilden’s six principles in their book “Interpretation for the 21st Century: Fifteen Guiding Principles for Interpreting Nature and Culture”. According to Brochu and Merriman, eighth and twelfth

²⁵ Knudson, D. M., & Cable, T. T. (2003). Principles, Challenges, and Applications. *Interpretation of cultural and natural resources* (2nd ed., p. 108). State College, Pa.: Venture Pub..

principles of Beck and Cable should be emphasized.²⁶ Principle eight refers to new tools and use of technology in interpretative planning and potential of these tools on enhancing experiences of the visitors. Besides principle eight, principle twelve is said to be important due to defining strategies that ensure sustainability of the interpretive program.

Besides these principles of Tilden and Beck and Cable, Sam Ham who is environmental communication scientist says that "Interpretation is simply an approach to communication".²⁷ According to Sam Ham, communication progress has four features and these four features can be used in every interpretation program whether they are personal or non-personal. Four aspects of communication can be adapted into interpretation as such:

Interpretation is enjoyable

Visitors come to see historic site voluntarily. If the interpretive program is not enjoyable enough visitors will get bored and leave the historic site earlier than expected.

Interpretation is relevant

Interpretive plan should connect the historic site and visitor's interest.

Interpretation is organized

Interpretive plan should have introduction, body and conclusion. This will make easier to follow interpretive program.

Interpretation has a theme

Interpretive plan should have a theme and should be organized around this theme. Interpretive plan may have sub-themes under the main theme.

Besides these principles and features of interpretation pointed out by various scholars, there is one and only international document regarding to heritage interpretation: **ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites** on the other words, **ICOMOS Ename Charter** which is firstly published in 2002. The ICOMOS Ename Charter defines interpretation, presentation, interpretive infrastructure, site interpreters, and cultural heritage sites and formulates heritage interpretation and defines seven principles. According to charter, drastic growth of interpretive activities

²⁶ Brochu, L., & Merriman, T. (2002). Exploring Our Roots. *Personal interpretation: connecting your audience to heritage resources* (p. 11). Fort Collins, Colo.: National Association for Interpretation.

²⁷ *ibid.*, p. 33

and new interpretive technologies have aroused new questions on how to determine appropriate methods of interpretation for each cultural and natural heritage sites and professional guidelines on designing heritage interpretation plan.

The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites indicates that while interpretation refers to the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage site, presentation more specifically denotes the carefully planned communication of interpretive content through the arrangement of interpretive information, physical access, and interpretive infrastructure at a cultural heritage site. The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage – which is revised in 16 March 2007 last time – defines seven principles for effective interpretation and presentation. These seven principles are:

Principle 1 Access and Understanding

Principle 2 Information Sources

Principle 3 Attention to Setting and Context

Principle 4 Preservation of Authenticity

Principle 5 Planning for Sustainability

Principle 6 Concern for Inclusiveness

Principle 7 Importance of Research, Training, and Evaluation

The **First Principle** of The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage states that “Interpretation and presentation programs should facilitate physical and intellectual access by the public to cultural heritage sites.”. By providing physical and intellectual access, understanding and appreciation of cultural heritage will be obtained and public awareness for the protection and conservation cultural and natural heritage will be developed.²⁸ In that respect, various demographic groups and their cultural backgrounds should be taken into account during preparation of interpretive plan. Also, different languages among visitors should be taken into account in the interpretive infrastructure in order to make various visitors connect with the heritage source. Moreover, each interpretation activity must be physically accessible to

²⁸ Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 6th Draft. (ICOMOS 2007)

the public. Interpretation and presentation should be provided off-site in the cases where physical access is restricted because of conservation problems.²⁹ As a result, further interest in experiencing and exploration of heritage site will be encouraged and significance of site will be understood by various visitors.

Second Principle says that “Interpretation and presentation should be based on evidence gathered through accepted scientific and scholarly methods as well as from living cultural traditions.”³⁰ Cultural and natural heritage sources must be interpreted and presented by using carefully documented and accepted scientific methods to various type of visitors such as domestic or international and young or elder. This principle recommends interpretation should show variety of oral and written information as well as material remains, traditions, and meanings dedicated to site. Moreover, interpretation must be based on well researched and multidisciplinary study on the site and its surroundings. Also interpretive programs should include oral testimonies if they provide important information about significance of site; visual reconstructions whether by artists, architects or computer modelers which are based on detailed and systematic analysis; historical data including written and audiovisual material and photography. Finally, this principle suggests that interpretation and presentation programs and activities should be documented for future references and monitoring.³¹

Third Principle recommends that “Interpretation and Presentation of cultural heritage sites should relate to their wider social, cultural, historical, and natural contexts and settings.” On the other words, values of cultural and natural heritage sites whether they are tangible or intangible must be protected in their cultural and natural settings and social contexts. This principle suggests that significance of a site – considering site’s cultural, social, and environmental significance and values – should be presented in its multi-faceted historical, political, spiritual and artistic contexts. Moreover, all phases and groups that have contributed significance of heritage site should be considered. Natural environment, surrounding landscape, and geographical settings are vital parts of a site’s significance and should be taken into account in interpretation. Intangible values of heritage site such as spiritual traditions, stories, music, local costumes and culinary heritage should be measured in interpretation plan. Finally, various perspectives on

²⁹ Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 6th Draft. (ICOMOS 2007)

³⁰ *ibid.*

³¹ *ibid.*

cross-cultural significance of heritage sites based on scholarly research, ancient records and living traditions should be taken into account in the interpretation program.³²

Fourth Principle declares that “The Interpretation and presentation of cultural heritage sites must respect the basic tenets of authenticity in the spirit of the Nara Document”.³³ In that sense, interpretation plan should be prepared in a way that protection of authenticity of cultural and natural heritage sites is provided and irreversible impacts of visitor pressure is prevented. In order to protect the authenticity of the site in the interpretation program, ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites claims that traditional social life of local residences and associated communities should be respected, cultural and natural values of heritage site should be considered without altering its fabric by irreversible interventions; interpretive infrastructures such as visitor center, kiosks, information panels, and visitor trails should be designed sensitive to the character and cultural and natural values of the site and must be easily distinguished in the context; and finally on-site concerts, performance and other interpretive programs must be planned carefully in order to minimize disturbance of local residences and protect authenticity of the heritage site.³⁴

Fifth Principle mentions that “The interpretation plan for a cultural heritage site must be sensitive to its natural and cultural environment, with social, financial, and environmental sustainability among its central goals”. In order to offer sustainable interpretation for cultural and natural sites, promotion of ongoing conservation activities to the public and encourage their participation to these conservation efforts is must. Moreover, guaranteeing long-term maintenance of interpretive infrastructure and regular review of interpretive contents should be provided.³⁵

Sixth Principle suggests that “The Interpretation and Presentation of cultural heritage sites must be the result of meaningful collaboration between heritage professionals, host and associated communities, and other stakeholder”.³⁶ Involvement of various stakeholders and associated communities in the development and implementation of

³² Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 6th Draft. (ICOMOS 2007)

³³ *ibid.*

³⁴ *ibid.*

³⁵ *ibid.*

³⁶ *ibid.*

interpretive programs is essential in order to provide sustainability of interpretation plan of the heritage sites.

Seventh Principle says “Continuing research, training, and evaluation are essential components of the interpretation of a cultural heritage site”. Technical and professional guidelines for heritage interpretation must be planned for efficient and sustainable heritage interpretation and presentation. These guidelines should be appropriate and suitable in their social and physical contexts.³⁷

While systematic approach in interpretation of cultural and natural heritage dates back to 1957 in international context, interpretation of cultural and natural sites is put into the words in Turkish legislations in 2004. In 2004, legislation called as ‘*Amendment Act No. 5226 Concerning to Revision of Legislation Called as Law Concerning to Conservation of Natural and Cultural Entities*’ is published.³⁸ One of the reason for publishing this legislation is said to be ‘to provide effective conservation of cultural entities and to maintain effective planning, management and promotion of historic sites’. In this legislation, it is said that ‘*environmental design project*’³⁹ is part of comprehensive management plan of the historic sites. Consequently, decisions in management plan should be reflected to environmental design project and administrative structure which is proposed in the scope of environmental design project should be integrated to overall management plan.

In this definition, it is said that, environmental design project is prepared in order to protect archaeological potentials of historic sites by controlling visitor use, providing promotion and advertisement, solving problems emerged as a result of current use and circulation and answer the needs of historic sites by contemporary tools and methods. Each ‘environmental design project’ is prepared in 1/500, 1/200 and 1/100 scale and should consider each historic site’s specific features in preparation stage. Aim and definition of ‘environmental design project’ as described in legislation give references to ‘heritage interpretation’ and emphasize need for interpretive program each and every heritage site in Turkey.

³⁷ Ename Charter for the Interpretation of Cultural Heritage Sites. Revised 6th Draft. (ICOMOS 2007)

³⁸ This legislation is called as ‘5226 Sayılı Kültür ve Tabiat Varlıklarını Koruma Kanunu ile Çeşitli Kanunlarda Değişiklik Yapılması Hakkındaki Kanun’ in Turkish.

³⁹ In this legislation, ‘Environmental Design Project’ means ‘Çevre Düzenleme Projesi’.

Besides 'Law Concerning to Revision of Legislation Called as Law Concerning to Conservation of Natural and Cultural Entities', 'Regulation Concerning Preparation, Presentation, Implementation, Supervision, and Authority of Conservation Master Plans and Environmental Design Projects' is published in 2005.⁴⁰ Managerial and administrative aspects of 'environmental design project' are defined in this regulation.⁴¹ In 2007, 'Regulation Concerning Entrance to Historic Sites and Information and Instruction Panels' is declared (Figure 13).⁴² Aim of this regulation is defined as to reduce visual pollution created by various types of information and instruction panels in historic sites. In this illustrated legislation, entrance panels for public or private museums and historic sites; world heritage site panels; interpretive, panels of sponsor and direction signs are designed and recommended to place these generic panels in each and every historic site in Turkey.

Despite the fact that complementary actions and tools are not mentioned in the Turkish legislations, books such as Personal Interpretation: Connecting Your Audience to Heritage Resources and international documents such as ICOMOS Charter for Interpretation and Presentation of Cultural Site are primary resources that indicate methods and tools for heritage interpretation. Besides these publications, National Park Service in United States declares interpretive methods which will be used in National Parks in United States.

Methods of interpretation are divided into two modes: personal interpretation and non-personal interpretation. Personal Interpretation refers to interpretive programs in forms of talks, demonstrations, guided walks, and tours.⁴³ In the personal interpretation, there is a need for site interpreter as defined in ICOMOS Charter of Interpretation and Presentation. On the other hand, non-personal interpretation refers to any interpretative infrastructure such as visitor centers, self-guided trails and interpretive panels as defined

⁴⁰ This regulation is called as 'Koruma Amaçlı İmar Planları ve Çevre Düzenleme Projelerinin Hazırlanması, Gösterimi, Uygulanması, Denetimi ve Müelliflerine İlişkin Usûl ve Esaslara Ait Yönetmelik' in Turkish

⁴¹ Koruma Amaçlı İmar Planları ve Çevre Düzenleme Projelerinin Hazırlanması, Gösterimi, Uygulanması, Denetimi ve Müelliflerine İlişkin Usul ve Esaslara Ait Yönetmelik. (n.d.). Mevzuat Bilgileri. Retrieved September 3, 2012, from <http://www.mevzuat.adalet.gov.tr/html/23263.html>

⁴² This regulation is called as 'Müze ve Örenyeri Giriş, Bilgilendirme, Yönlendirme Tabelaları Hakkındaki Yönetmelik' in Turkish

⁴³ Beck, L., & Cable, T. T. (2002). *Interpretation for the 21st century: fifteen guiding principles for interpreting nature and culture* (2nd ed., p. 4). Champaign, IL: Sagamore Pub..

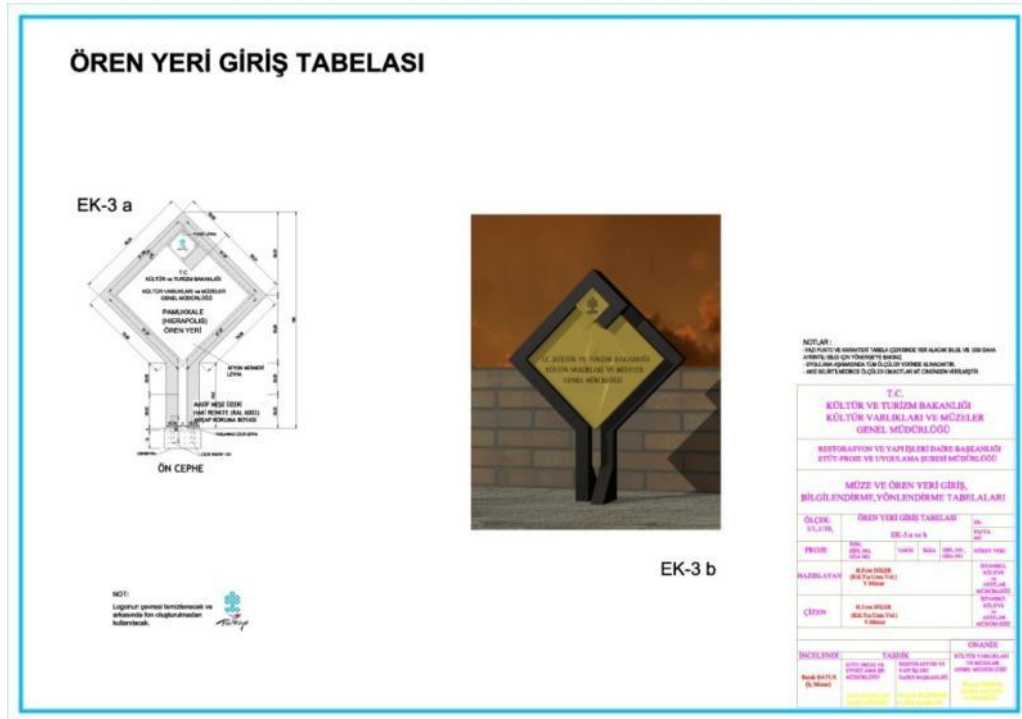


Figure 13 Proposed Generic Panels for Historic Sites by the Regulation. Top: Entrance Panel of Historic Site. Bottom: Information Panel for Historic Sites. Source: <http://teftis.kulturturizm.gov.tr/>, last access in 03 September 2012

in ICOMOS Charter of Interpretation and Presentation.⁴⁴ Tools of personal and non-personal interpretation are shown in Table 2. According to Tilden, personal interpretation is much more effective than non-personal interpretation due to direct contact between interpreter and visitor. So that, interpreter satisfy the needs of visitor asks for at anywhere or anytime. Besides two modes of interpretation, there are two types of visitation trends as repeat and non-repeat visitation.⁴⁵ While, repeat visitation refers to visiting heritage site in regular time intervals, non – repeat visitation refers to visiting heritage site one and only time.

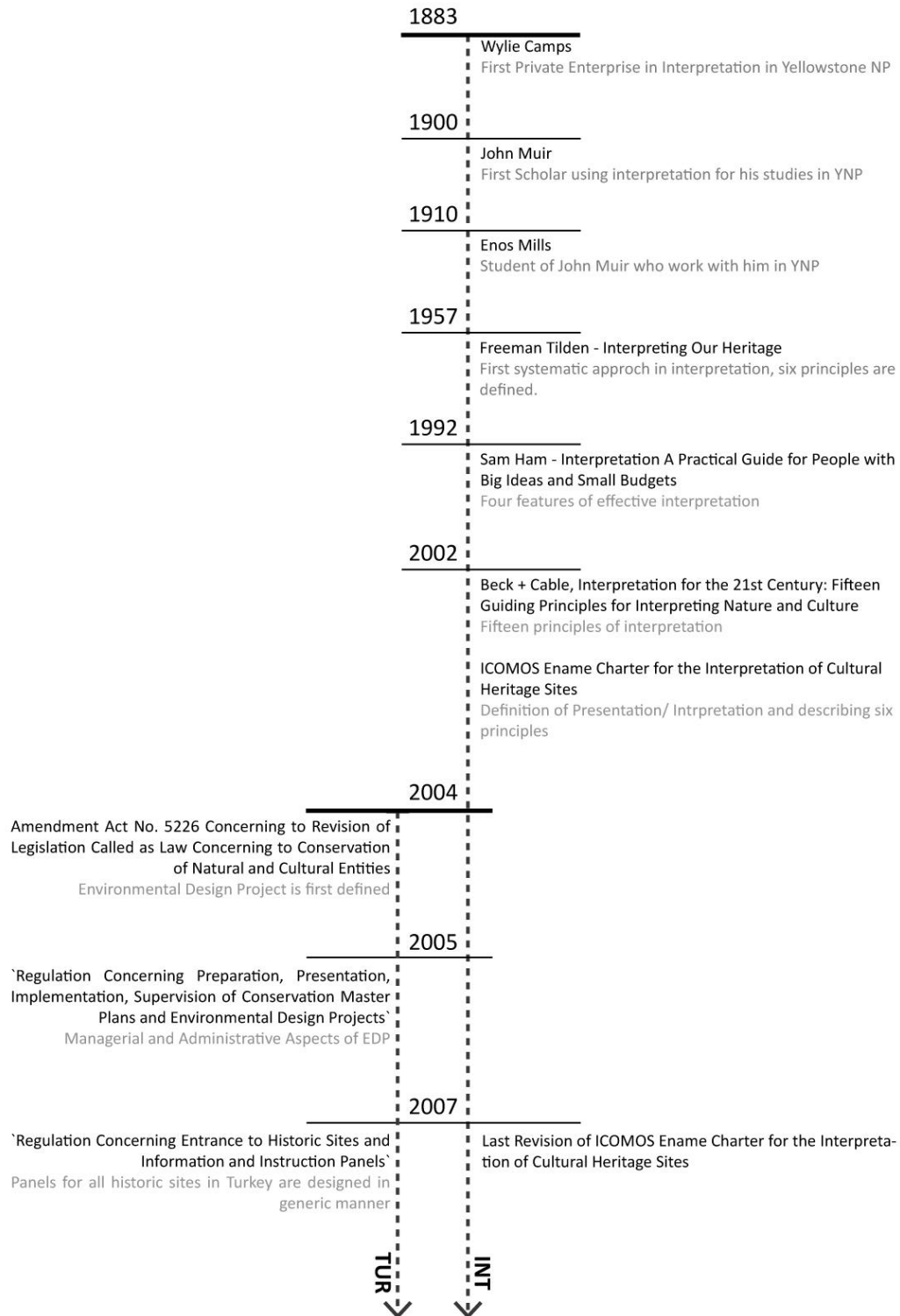
⁴⁴ Beck, L., & Cable, T. T. (2002). *Interpretation for the 21st century: fifteen guiding principles for interpreting nature and culture* (2nd ed., p. 4). Champaign, IL: Sagamore Pub..

⁴⁵ ibid. p.16.

Table 2 Tools of Two Modes of Interpretation. Adapted from source: Knudson, D. M., & Cable, T. T. (2003). Chapter 2: Who Offers Interpretation?. *Interpretation of cultural and natural resources* (2nd ed., p. 108). State College, Pa.: Venture Pub..

TOOLS OF TWO MODES OF INTERPRETATION	
Personal Interpretation	Non-personal Interpretation
Guides/ Guided Tours	Interpretive Signs/ Displays
Distance Education Systems	Graphic Panels
Demonstrations	Printed Material
Live Interpretation	On-Site / Brochures, Leaflets
	Off-Site / Publications, Books
	Audio-Visual Aids
	Presentations
	Video Plays
	Audio Tour
	CDs
	Visitor Center
	Animatronics, Holograms
	Interactive Computer Exhibits/ Kiosks
	Interpretive Websites
	Mobile Applications
	Virtual Reality
	Exhibits
	Relief Model
	Maps/ Guide Maps
	Self-guided trails

Table 3 Conceptual Background of Interpretation and Presentation



2.2. CASE STUDIES

There are various types of interpretive methods and tools regarding personal and non-personal modes of interpretation. Adaption of these various methods and tools to each natural or cultural site show different approaches due to various characteristics each heritage site. In that respect, understanding different approaches in interpretation by the help of carefully selected case studies will exemplify comprehensive and complementary interpretive plans and define quality standards for interpretation of heritage sites. Moreover, these case studies will help to define architectural program and development of relevant tools for interpretation in Göreme Open Air Museum.

2.2.1. STONEHENGE, AVEBURY AND ASSOCIATED SITES

Stonehenge is a prehistoric monument located in the English county of Wiltshire, about 3.2 km west of Amesbury and 13 km north of Salisbury. Stonehenge, Avebury and Associated Sites are included to World Heritage List in 1986 as cultural property because of ensuring cultural criterias I, II and III.⁴⁶

Table 4 Stonehenge, Avebury and Associated Sites

A. GENERAL INFORMATION							
Name of the Property/ Country Stonehenge, Avebury and Associated Sites / England							
Type of Property Cultural				Inscription Date 1986			
B. INTERPRETATION PLAN							
Interpretation Plan is Implemented				No			
C. APPROACH TO INTERPRETIVE PROGRAM							
Interpretive Themes		NA	Design for All		Y	Various Visitor Groups	Y
D. INTERPRETIVE OPPURTUNITIES							
1. PERSONAL							
Guided Trails		Y	Onsite Interpretive Activities		Y	Outreach/ Education Programs	NA
2. NON – PERSONAL							
Interpretive Signs/ Displays			+	On – Site Brochures/ Leaflets		-	
Off – Site Publications/ Books			+	Audio – visual Aids		+	
Visitor Center			+	Interactive Computer Exhibits		-	
Websites			+	Mobile Applications		+	
Exhibitions			+	Models		+	
Maps/ Guide Maps			+	Self – guides Trails		+	

⁴⁶ UNESCO (18 July 2008). *Stonehenge World Heritage Site Management Plan*. Retrieved September 03, 2012, from <http://www.english-heritage.org.uk/publications/stonehenge-management-plan-2009/sh-manpan-1-2-screen.pdf>

Stonehenge is one of the most remarkable prehistoric megalithic monuments in the world because of demonstrating outstanding creative and technological achievements in prehistoric times. Stonehenge is distinguished by sophistication of its concentric plan, architectural design and engineering of huge stones. Transportation of huge sized stones from 240 kilometres away and the workmanship in shaping the stones are noteworthy.⁴⁷ As a result of these unique features and promotion of Stonehenge throughout the world, the site receives approximately one million visitors per year. Besides Stonehenge's architectural design and engineering, it represents the evolution of monument construction technique.



Figure 14 Google Earth image of Stonehenge

Also, continual use of the landscape that Stonehenge shaped over more than 2000 years, from the early Neolithic to the Bronze Age is significant. Moreover, Stonehenge and Avebury provide information on funerary rituals in Britain in the Neolithic and Bronze Age. The design, positioning, and interrelationships of the monuments are evidence of a wealthy and highly organized prehistoric society which is able to reflect its philosophies on the environment.⁴⁸

⁴⁷ Stonehenge, Avebury and Associated Sites - UNESCO World Heritage Centre. (n.d.). *UNESCO World Heritage Centre*. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/373/>

⁴⁸ *ibid.*

While there is not complementary interpretation plan of Stonehenge today, there are interpretive facilities and visitor services presented off-site and on-site. Websites, brochures, guidebooks and catalogues are off-site interpretive facilities of Stonehenge.



Figure 15 Stonehenge. Source: <http://www.english-heritage.org.uk/>, last accessed in 19.07.2012

Official website of Stonehenge ⁴⁹ which is prepared by English Heritage is comprehensive source giving information about general features and history of site by interactive maps (Figure 16), prices/ opening times, how to arrive site, visitor services/ interpretive facilities, accessibility for disabled, special events and rules during site visit. Besides official website, mobile applications and podcasts can be downloaded from web in order to get information about Stonehenge (Figure 17).

Approach to Stonehenge is from A344 highway. A344 pass tangent to Stonehenge and arrives parking area. Visitors visit starts in parking area (Figure 14). Entrance to Stonehenge is free to members of English Heritage, adults pay 7,80 pound and children pay 4,70 pound for entrance. There are discounts for students and families. Moreover, overseas visitor pass for international visitors is available for foreign tourist including many of touristic attractions in England. On-site interpretive facilities of Stonehenge are visitor center located in parking area for private cars and coaches in Stonehenge with food and drink services, toilets, and souvenir shops and audio guides (Figure 19). There is also picnic area equipped with benches in front of museum shop.

⁴⁹ English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/>

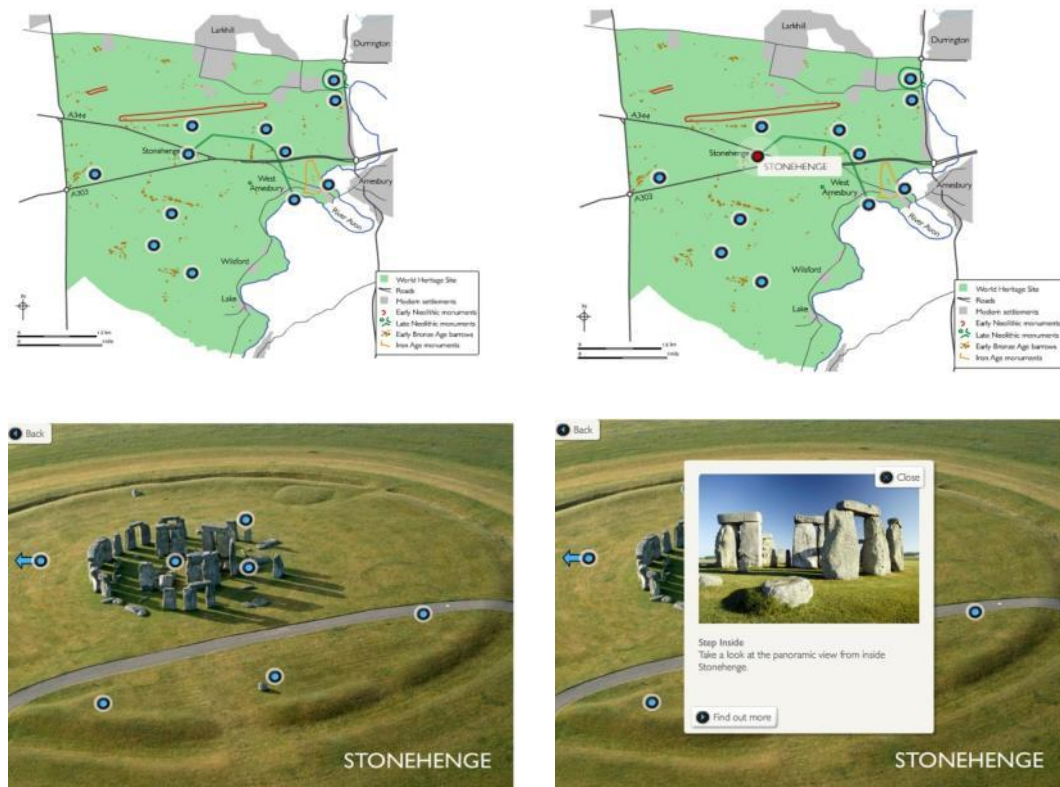


Figure 16 Interactive Map of Stonehenge. Source: <http://www.english-heritage.org.uk/>, last accessed in 23.07.2012



Figure 17 Mobile Application about Stonehenge. Source: Apple AppStore, last access in 03 September 2012.



Figure 18 Panel informing visitors about Stonehenge and facilities in site. Source: <http://www.flickr.com/>, last access in 03.09.2012



Figure 19 Visitor Facilities in Vehicular Park. Source: <http://www.flickr.com/>, last access in 03 September 2012.

Disabled visitors are considered in current interpretive services. Pavement of site is designed flat with a tarmac material in respect of wheelchair users. Moreover, ramps are located instead of stairs throughout the site. Braille guides, models of stones are prepared for visually impaired visitors. Tour transcripts are presented for deaf visitors. Dyslexia friendly and basic language audio tours and easy read materials are provided for visitors with learning difficulties.

There are special events conducted in various dates throughout the year for visitors in order to promote repeated visitation. Two of these special events are **Stonehenge: Uncovered** and **Stonehenge: Up Close**.⁵⁰ **Stonehenge: Uncovered** is walking tour guided by Historians of English Heritage. Walking tour includes visit of Stonehenge and key

⁵⁰ English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/>

archeological sites in surrounding landscape. During walking tour, brand new discoveries came to light by recent research projects carried out in the site is mentioned by the researchers. Content of another special event, **Stonehenge: Up Close**, is very similar to Stonehenge: Uncovered, but the dates of these events are different. These special events are pre-booked due to its limited capacity and member's only events. So that, membership to English Heritage is promoted and sustainability of site visits all over the England's Heritage Site is obtained.

However, in regular visiting times, visitors have to stay outside the stone circle and walking into it is not allowed; **Stone Circle Access** program provides opportunity for visitors to go into the center of the stone circle. Visitors must complete the Stone Circle Access application form in order to book visit and pay extra money. Stone Circle Access program is provided early in the morning or late in the evening, outside normal opening times. So that, it is not a guided tour, there are no audio guides available and souvenir shops and café are also closed. On the other hand, guidebooks can be ordered in order to enhance visitor's experience by the application form. Each visit takes one hour and maximum 26 visitors are allowed within the stone circle.⁵¹ Besides stone circle, surrounding environment is also interpreted. For instance, concrete posts are placed in order to indicate places of timber posts from wooden version of Stonehenge dating back to 2000 BC (Figure 20).



Figure 20 Wooden posts indicating locations of Woodhenge. Source: <http://www.flickr.com/>, last access in 03 September 2012

⁵¹ Stonehenge Stone Circle Access | English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/stone-circle-access/>

While off-site interpretive program of and events in Stonehenge are noteworthy, physical environment of Stonehenge is problematic. Busy roads cut through surrounding monuments and landscape, most importantly the Avenue – the ancient ceremonial approach. Moreover, visitor facilities and parking are very close to Stonehenge and creates visual obstacle on the site. In visitor center, the facilities are basic and there is not any space for education or exhibitions. The shop is often overcrowded, and snacks are only available from an outdoor kiosk. Parking is insufficient and over flow parking to adjacent empty areas at busy times occurs.⁵²



Figure 21 Current problems regarding visual pollution and use in Stonehenge. Source: <http://www.english-heritage.org.uk/daysout/properties/stonehenge/our-plans/need-for-improvement/>

The need to present Stonehenge and answer visitor's needs during their site in comprehensive manner are on the agenda for many years. In that respect, two projects were prepared in order to improve presentation of Stonehenge and improve facilities in the site dating different times. The first project is prepared in 1980s by Heritage Projects and not implemented. Besides first project, second project is prepared in 2009 and will be implemented and opened to public in summer 2014.⁵³ Second project is chosen as a

⁵² Need for Improvement at Stonehenge | English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/our-plans/need-for-improvement/>

⁵³ Need for Improvement at Stonehenge | English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/our-plans/need-for-improvement/>

result of the competition and Australian architecture firm Denton Corker Marshall won the competition to replace existing facilities with new visitor center and open air arrangements.⁵⁴



Figure 22 Stonehenge Visitor Center. Source: <http://www.english-heritage.org.uk/> , last access in 3 September 2012

Two projects gave different answers to the problems of Stonehenge, but there are also similarities between them. Similarities between these two projects are closure of Byway 12, the part of A344 and new road arrangements regarding road closure. Besides road closures, reveal of “avenue” which is historic ceremonial route is common point of these two projects. Location of visitor centers constitutes the main difference. Location of visitor center directly affects visitor pattern, so that visitor patterns are solved in different manners in these two proposals.

Project dating back to 1980s proposes pop festival area and vehicular park at the north west of Stonehenge. Moreover, visitor center adjacent to vehicular park is designed (Figure 22). Vehicular park and visitor center are buried in the ground and vehicular park is approached by the ramp going downwards at the end of A344 (Figure 23). Visitor center has two storeys and it is adjacent to vehicular park. In the visitor center, there is a multimedia theatre presenting “The Meaning of Stonehenge”, restaurant, souvenir shops, and prehistory exhibition/ display areas on two storeys. Moreover, replica of Stonehenge which is illuminated by skylight above is placed in visitor centre.

⁵⁴ Stonehenge Visitor Centre by Denton Corker Marshall. (n.d.). *Dezeen - architecture and design magazine*. Retrieved September 3, 2012, from <http://www.dezeen.com/2012/07/11/stonehenge-visitor-centre-by-denton-corker-marshall/>

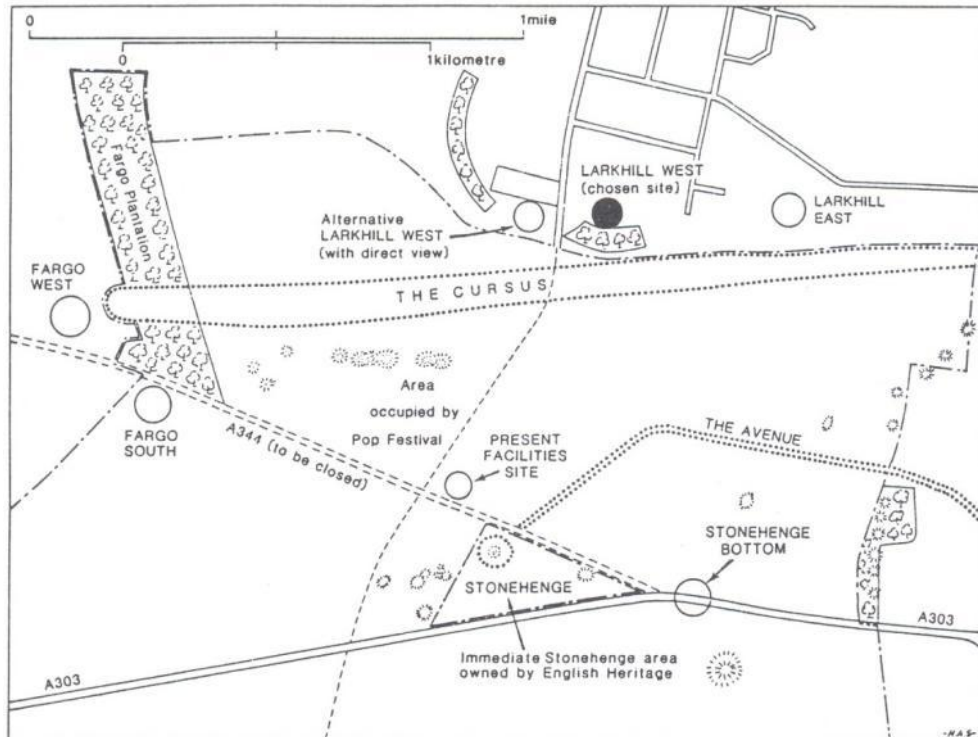


Figure 23 Stonehenge and Its Surrounding Environment. Source: Cleere, H. (1989). Case Studies. *Archaeological heritage management in the modern world* (p. 256). London: Unwin Hyman.

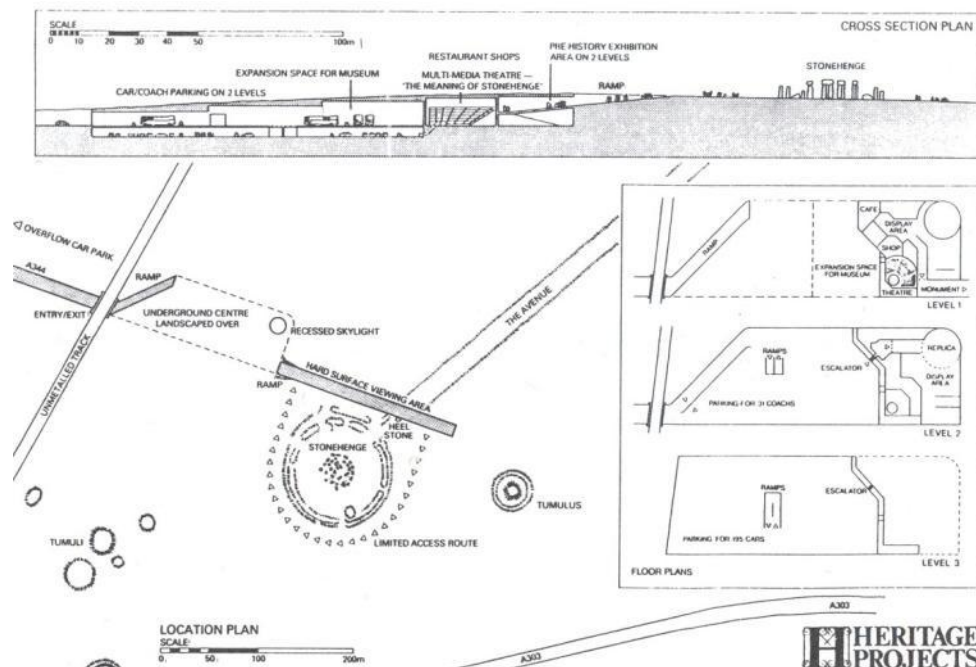


Figure 24 Stonehenge and Visitor Center. Source: Cleere, H. (1989). Case Studies. *Archaeological heritage management in the modern world* (p. 256). London: Unwin Hyman.

In second project which is prepared in 2009, current vehicular park and facilities near the stones will be removed and replaced to 2,5 kilometres away from Stonehenge at northwest (Figure 25). Transfer of visitors between visitor centre and Stonehenge is provided by low-key shuttle system. Area for drop-off and pick-up the passengers using low-key shuttle system are reserved. Moreover, areas for cyclists and pedestrians are also reserved on the road. By the removal of car park and facilities, the area is returned to grass, only reserving minimum space for security and emergency toilets. New visitor centre is equipped with presentation and education facilities. Besides presentation and education facilities, café, retail shop, ticket office, and toilets, outdoor interpretation areas, and vehicular parks are proposed (Table 5).

Table 5 Architectural Program of Stonehenge Visitor Center

PROGRAM OF STONEHENGE VISITOR CENTER	
Interpretation Spaces	500 m ²
Education Spaces	12 m ²
Café	300 m ²
Retail Shop	275 m ²
Ticket Booth	25 m ²
Membership Services	18 m ²
WCs	165 m ²
Technical Services	88 m ²
TOTAL	1491 m²

Various activities are planned for different age groups with different interests through a variety of media in Stonehenge. For example, Stonehenge hosts 40,000 visitors coming for education purposes from UK and all over the world. Education facilities presented in visitor centre will provide space for school groups to conduct workshops and hands-on activities. Moreover, portable audio and video guides will be presented to visitors to enhance their experiences as they move into the stone circle and landscape.⁵⁵

⁵⁵ The New Facilities at Stonehenge | English Heritage. (n.d.). *English Heritage Home Page | English Heritage*. Retrieved September 3, 2012, from <http://www.english-heritage.org.uk/daysout/properties/stonehenge/our-plans/our-proposals/new-facilities/>

2.2.2. PETRA ARCHEOLOGICAL PARK

Petra is a historical and archaeological city located between Red Sea and Dead Sea in Jordan which is famous for half-built, half-carved into the rock architecture and water conduit system. Architecture of Petra which creates the universal outstanding value of Petra; include remains of tombs, temples, remnant channels, tunnels, and dams that integrated with network of cisterns which is controlled by seasonal rains. Petra which is rock-cut capital city of the Nabateans, inhabited since prehistoric times. The synthesis of Hellenistic architecture and traditional Nabataean rock-cut tombs represents a unique artistic achievement and an outstanding architectural ensemble of the first centuries BC to AD. Petra became a major caravan center for the incense of Arabia, the silks of China and the spices of India due to being located at the crossroads between Arabia, Egypt and Syria during Hellenistic and Roman period.⁵⁶

Table 6 Petra Archeological Park

A. GENERAL INFORMATION								
Name of the Property/ Country Petra/ Jordan								
Type of Property Natural and Cultural				Inscription Date 1985				
B. INTERPRETATION PLAN								
Interpretation Plan is Implemented				No				
C. APPROACH TO INTERPRETIVE PROGRAM								
Interpretive Themes		Y	Design for All		NA	Various Visitor Groups		Y
D. INTERPRETIVE OPPURTUNITIES								
1. PERSONAL								
Guided Trails		Y	Onsite Interpretive Activities		Y	Outreach/ Education Programs		NA
2. NON – PERSONAL								
Interpretive Signs/ Displays			+	On – Site Brochures/ Leaflets			+	
Off – Site Publications/ Books			+	Audio – visual Aids			-	
Visitor Center			+	Interactive Computer Exhibits			-	
Websites			-	Mobile Applications			-	
Exhibitions			+	Models			-	
Maps/ Guide Maps			+	Self – guides Trails			+	

Petra is listed as world heritage due to its importance in history, striking natural setting, and extraordinary human work. Moreover, Petra is chosen as one of the new Seven

⁵⁶ Petra - UNESCO World Heritage Centre. (n.d.). *UNESCO World Heritage Centre*. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/326>

Wonders of the World based on a worldwide internet voting.⁵⁷ Also, Smithsonian Magazine chose Petra as one of the "28 Places to See Before You Die".⁵⁸ These two events aroused interest in Petra and made it most visited touristic attraction in Jordan.⁵⁹



Figure 27 Google Earth image of Petra Archeological Park

Number of visitors in Petra Archeological Park is rapidly increasing since inscription of the site to World Heritage List and other activities promoting Petra consequently. As a result of growing number of visitors, Petra faces numerous problems regarding visitor practices and their uses.

Visitor surveys conducted in the site with visitors, enterprises associated with tourism industry and other stakeholders showed that visitor experience in Petra Archeological Park is lesser than expected.⁶⁰ Aspects that reduce visitor experiences in Petra

⁵⁷ The official New7Wonders of the world. (n.d.). *World of New7Wonders: The whole World of New7Wonders*. Retrieved September 3, 2012, from <http://world.n7w.com/new-7-wonders/the-official-new7wonders-of-the-world/>

⁵⁸ History, Travel, Arts, Science, People, Places | Smithsonian Magazine. (n.d.). *History, Travel, Arts, Science, People, Places | Smithsonian Magazine*. Retrieved September 3, 2012, from <http://www.smithsonianmag.com/>

⁵⁹ Petra . (n.d.). *The Official Website of The Jordan Tourism Board*. Retrieved September 3, 2012, from <http://www.visitjordan.com/Default.aspx?TabId=63>

⁶⁰ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPR) Interpretive Plan For Petra Archaeological Park* (p. 27). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

Archeological Park as indicated in “Interpretive Plan for Petra Archeological Park” are listed below.⁶¹

- **Visitors damage the natural and cultural resources of PAP** by touching on stone surfaces of rock cut temples and take pieces from rocks. Visitors disregard information panels that prohibit access to areas due to rapid deterioration of rock surfaces, such as the Roman Theater, where loss of most of the mason’s marks on masonry work in just ten years. This situation accelerates deterioration in PAP.
- In PAP, safety is crucial importance due to challenging geography and harsh climate of site, but, necessary information regarding visitor safety is not given for visitors before and during their site visits. **Lack of information regarding visitor safety** causes injuries and even deaths in site.
- **Fees are not announced and explained clearly** in PAP and prices of services presented in PAP are unclear. So that, disagreements between visitors and service providers emerged. Moreover, ticket lines are not in an order.
- **Visitors are not informed about their PAP experience before and during their visits.** Visitors of PAP do not know that they have to walk many kilometers to experience natural and cultural resources PAP. Moreover, absence of visitor orientation in PAP before and during their visit results unpleasant experience. So that, visitors plan their site excursion through PAP without being aware of where shelters, shops, restaurant, and WCs are located within PAP. Such unplanned site excursion causes problems regarding fulfillment of basic human needs.
- Visitors cannot experience the significance of PAP due to **lack of interpretive facilities**. Current visitor center is insufficient in terms of satisfying visitor needs and interpreting site to visitors efficiently. Interpretive panels that orient visitors during their visit in PAP are not sufficient and most of them direct to wrong ways. Moreover, guides are not available all the time.

In June 2008, Interpretive Plan for Petra Archeological Park is prepared by the collaboration between USAID and Jordan Tourism Development in order to solve these problems. Outcomes of interpretive plan are declared as

“ - to increase public understanding and enjoyment of the site,

⁶¹ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPDR) Interpretive Plan For Petra Archaeological Park* (p. 2). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

- to attract more mature, affluent, and culturally aware travelers,
- to inform visitors of the relationships among Petra and other archaeological, historical, and cultural sites in Jordan
- to increase visitor dwell time at the site, nearby communities, and in Jordan,
- to use the site to help underpin the economy in the immediately adjacent localities that depend on tourism by increasing visitor dwell time.”⁶²

In interpretation plan; access to site, pricing of site visit and visitor services on site, visitor center with an outdoor theatre for community events (Figure 28), museum trails (Figure 29), wayside exhibits and interpretative signs (Figure 30), manmade presentation and landscape elements and their locations, audio visual media, picnic areas and camping grounds, park lighting, restaurants and shops, recreation areas, public events and activities within the park, educational programs, website design and publications are proposed in order to achieve effective, complementary and comprehensive plan.

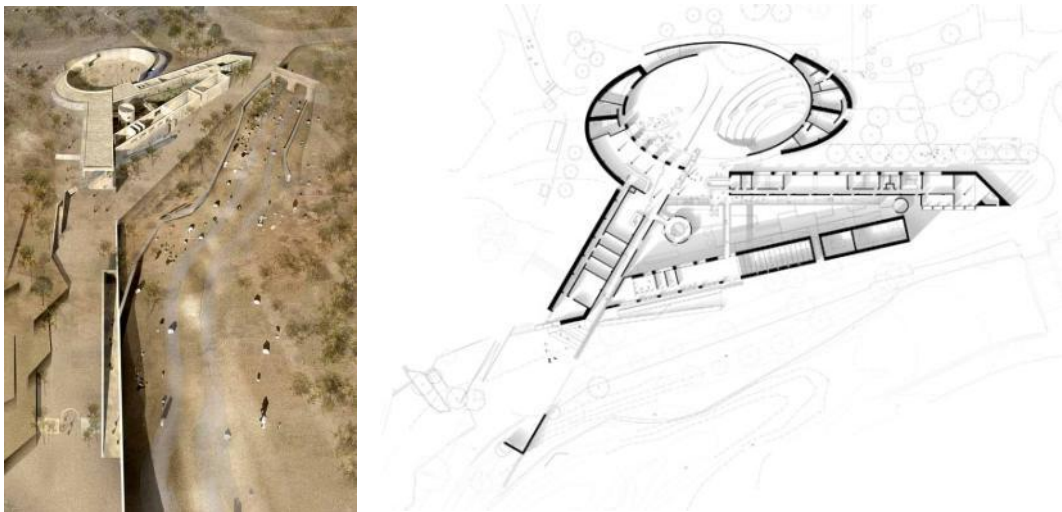


Figure 28 Petra Visitor Center with Outdoor Theatre. Edward Cullinan Architects - Projects - A New Gateway to Petra, Jordan. (n.d.). Edward Cullinan Architects: Specialists in sustainable and environmental design. Retrieved September 3, 2012, from <http://www.edwardcullinanarchitects.com/>

⁶² United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPR) Interpretive Plan For Petra Archaeological Park* (p. 4). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

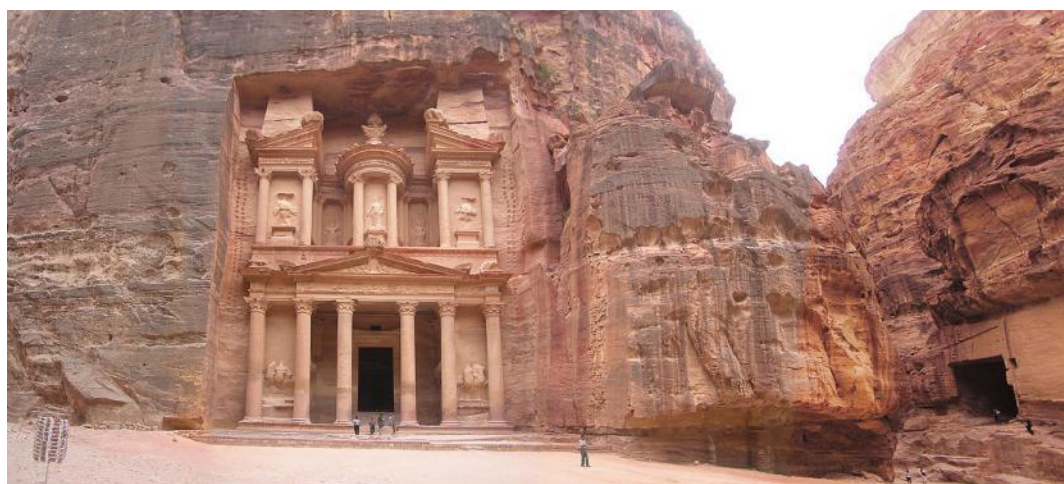


Figure 31 Petra. Source: <http://www.tourism-jordan.com/images25/petra2.jpg> , last access in 03 September 2012

Petra Archeological Park Interpretive Plan is distinctive in terms of its two features. First one is the definition of interpretive themes and sub-themes regarding site's natural and cultural significance and the second one is division of visitors' experience in Petra into sections by keeping in mind that visitor's experience begins before visitor's arrival to the site and does not end after the visitor leaves the site. These two distinctive features of PAP Interpretive Plan are parallel with the Sam Ham's ideas of "Interpretation is thematic" and "Interpretation is organized". Themes and sub-themes of PAP Interpretive Plan are listed and its content is explained in Table 8.⁶³ Besides themes and sub-themes, PAP Interpretive Plan's four sections of on-site and off-site experiences are mentioned in detail below.

Table 7 Four sections of site visit in PAP. Source: United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDP) Interpretive Plan For Petra Archaeological Park* (p. 27).



⁶³ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDP) Interpretive Plan For Petra Archaeological Park* (p. 19). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

Four sections of site visit in Petra Archeological Park are listed in sequence from start to end as “**outreach and pre-arrival**”, “**orientation and access**”, “**on-site exploration**” and “**off-site programming and links**”.⁶⁴ After dividing site experience into four, future strategies and actions are defined for each section. These four sections are mentioned below and flow chart of these four sections is shown in Table 7.



Figure 32 Petra. Source: <http://2.bp.blogspot.com>, last access in 03 September 2012

As the name suggests, **outreach and pre-arrival activities** aim to introduce information to visitors and potential visitors of Petra Archeological Park before they arrive. Frequently, having a look at a website or reading brochure/ tour guide is first contact of visitors/ potential visitors of PAP. Especially for visitors going to Petra Archeological Park first time, outreach and pre-arrival activities have crucial importance because of information introduced in this section will prepare visitors for their first visit of site. Moreover, information given in outreach and pre-arrival section will orient visitors about what to expect from their site excursion and understand facilities presented in PAP.⁶⁵

Orientation of visitors to Petra Archeological Park and inform them about how to access facilities and attraction points in the site is considered as one of the aims of effective interpretation. **Orientation and access** starts at the entrance to the site where the visitor center is also located. Detail information of PAP to the visitors is given and visitors are oriented through the site at the entrance of site. Content of the information which is

⁶⁴ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPR) Interpretive Plan For Petra Archaeological Park* (p. 27). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

⁶⁵ *ibid.*

given in “orientation and access” is about visitor safety, fee structure, significance of site, interpretive facilities available at PAP, locations of visitor facilities and care for not destructing site during their visit.⁶⁶

On-site exploration refers to site excursion of visitors in Petra Archeological Park. Giving information to visitors regarding variety in potentials regarding natural and cultural resources of the site and visitor/ interpretive facilities in site, how to access these potentials and facilities, and describing the variety of potentials and experiences is required in order to provide proper excursion. In that respect, information presented in “orientation and access” will help visitors experience Petra in a pleasant manner.⁶⁷

Information about Petra is provided outside the boundaries of PAP in the **off-site programming and links**. In this section of park visit, visitors will be informed about complementary activities, including information about experiential opportunities outside PAP and other attraction points in surrounding areas.⁶⁸

⁶⁶ United States Agency for International Development (2008). *Jordan Tourism Development in the Petra Region (JTDPR) Interpretive Plan For Petra Archaeological Park* (p. 29). Retrieved September 03, 2012, from <http://dl.dropbox.com/u/49329016/Interpretive%20Plan%20and%20Appendices%20Compressed.pdf>

⁶⁷ *ibid*, p. 30

⁶⁸ *ibid*, p. 32

Table 8 Interpretive Themes and their Contents in PAP. Source: Interpretive Plan for PAP.

INTERPRETIVE THEMES	INTERPRETIVE CONTENT
Theme 1 The Landscape of Petra Fostered Human Development	Interaction between human and nature of Petra and alterations of Nabataeans to the landscape
Theme 2 Hydrology	Exploring one of the most complex water management systems in the world which is constructed by The Nabataeans in Petra
Theme 3 Nabataeans and Trade	Petra was located on the intersection point of commercial traffic to and from the Mediterranean world, Africa, Mesopotamia, and southern Arabia in the first century BC.
Theme 4 Petra in Religious Histories and Traditions	Exploration of landscape of Petra formed by giving references to beliefs and traditions of Islam, Christianity, and Judaism throughout the history.
Theme 5 Bedouin Culture	Understanding life of Bedouins who have traveled the desert in order to satisfy their basic needs and meet with other tribes for trade and social events.
Theme 6 Evolving Relationship with Rome	Trading activities between Rome which was one of wealthy states in the Mediterranean, and Nabataeans strengthened the relationships between these two cultures.
Theme 7 Natural Disasters at Petra	Petra faced with earthquakes throughout the history. Many buildings were demolished and hydrological infrastructure is damaged.
Theme 8 Conservation at Petra	Understanding on the protection of park resources will be developed.

2.2.3. MOUNT NEMRUT

Mount Nemrut is located at 40 km north of Kahta, in Adıyaman province of Turkey. Mount Nemrut is one of the 11 properties listed as World Heritage in Turkey in 2012. The *Hierotheseion*⁶⁹ of Mount Nemrut, which is built under the rule of King Antiochos I, represents significance of the kingdom of Commagene. The *Hierotheseion* is defined by Malatya at northwest, Pötürge at the North, Gerger at the east, Samosata at the south, Perre and Arsemia at the southwest.⁷⁰ Mount Nemrut is composed of tumulus and three terraces: tumulus is at the center and three terraces are located at east, west and north of the tumulus. The highest point of tumulus at 2206 meters and width of the tumulus is 145 meters. Although east and west terraces are constructed and designed in a similar approach, the north terrace is completely different.

Table 9 Mount Nemrut

A. GENERAL INFORMATION							
Name of the Property/ Country Mount Nemrut / Turkey							
Type of Property Cultural				Inscription Date 1986			
B. INTERPRETATION PLAN							
Interpretation Plan is Implemented				No			
C. APPROACH TO INTERPRETIVE PROGRAM							
Interpretive Themes		NA	Design for All		Y	Various Visitor Groups	Y
D. INTERPRETIVE OPPURTUNITIES							
1. PERSONAL							
Guided Trails		Y	Onsite Interpretive Activities		Y	Outreach/ Education Programs	NA
2. NON – PERSONAL							
Interpretive Signs/ Displays			+	On – Site Brochures/ Leaflets		-	
Off – Site Publications/ Books			+	Audio – visual Aids		+	
Visitor Center			+	Interactive Computer Exhibits		+	
Websites			-	Mobile Applications		-	
Exhibitions			+	Models		+	
Maps/ Guide Maps			-	Self – guides Trails		+	

⁶⁹ Goell, T. (1957). The Excavation of the "Hierotheseion" of Antiochus I of Commagene on Nemrud Dag (1953-1956). *Bulletin of the American Schools of Oriental Research*, 147, 4.

⁷⁰ Kommagene Nemrut Koruma Gelistirme Programi. (n.d.). Kommagene Nemrut Koruma Gelistirme Programi. Retrieved September 3, 2012, from <http://www.nemrut.org.tr>

Limestone statues of King Antiochos with four gods and a pair of protective lion and eagle sculptures are located at east and west terraces. These giant statues, which are considered as one of the most ambitious constructions of Hellenistic period, are situated on the elevated platforms in east and west terraces, so that monumentality of the statues is emphasized. In spite of east and west terraces, there are series of sandstone plinths and steles without any reliefs and inscriptions on the north terrace which is in the form of long and narrow rectangle.⁷¹ On the inscriptions of the statues located on the east and west terrace, both Greek and Persian names of gods are written in reference to Commagene's unifying role between east and west.



Figure 33 Aerial photo of Mount Nemrut Tumulus. Source: Nemrut Dağı Çevre Düzenleme Avan Projesi

Mount Nemrut attracts tourists from all over the world due to its universal significance. Despite being international tourist destination, touristic activities are developed in uncontrolled. Especially during annual Nemrut Festival, uncontrolled visitor use reaches its peak point due to high number of tourists coming to site. Despite the uncontrolled use and its potential problems, any precautions are not taken into account so as to prevent destruction caused by visitor practices in site. Moreover, any interpretive

⁷¹ Kommagene Nemrut Koruma Gelistirme Programi. (n.d.). Kommagene Nemrut Koruma Gelistirme Programi. Retrieved September 3, 2012, from <http://www.nemrut.org.tr>

including accurate presentation of Mount Nemrut is not conducted in site.⁷² So that, Mount Nemrut is not understood in relevant manner and therefore rapid destruction of site values is appeared.



Figure 34 Mount Nemrut Tumuli. Source: ODTÜ - SAYKA Archive

In order to control the visitor use in site and interpret Mount Nemrut in an appropriate manner, Environmental Design Project is prepared by Kommagene Nemrut Conservation and Development Program in 2008. The aim of the EDP is defined as to provide interpretation and presentation of natural and cultural values of Mount Nemrut by giving reference to internationally recognized conservation principles and thereby to ensure protection and sustainability of the site.⁷³ In the scope of EDP; current state of Mount Nemrut is analysed and evaluated, then preliminary decisions are stated regarding needs of the site (Table 10).⁷⁴ Environmental Design Project of Mount Nemrut is unique in terms of its project preparation process from comprehensive analysis of current state to design of EDP.

⁷² Kommagene Nemrut Conservation and Development Program (2008). *Mount Nemrut Tumuli Environmental Design Project*. p. 437

⁷³ *ibid*, p. 438

⁷⁴ *ibid*, p. 438

Table 10 Method for Nemrut Environmental Design Project. Source: http://www.nemrut.org.tr/foto/buyuk/3_2_3_1.jpg, adapted by author

METHOD FOR MOUNT NEMRUT ENVIRONMENTAL DESIGN PROJECT		
Current State	Researches on Macro Scale Documents	
Evaluation	Natural Environment	
Preliminary Decisions	Uses and Users	
	Roads	
	Built Environment	
	Archaeological sites, remains and traces	
	Buildings	
	Presentation and Landscape Elements	
	Infrastructural Elements	
	Administration, Security and Monitoring	
Plans and Projects		Scale
Plans	Master Plan: Adiyaman - Malatya	1/5000
	Development Plan: Adiyaman - Malatya	1/1000
Projects	Environmental Design Project	1/500
	Visitor Center	1/200

Current State of Mount Nemrut Tumuli is analysed under the titles of **Roads and Access, Use and Users, New Constructions, Manmade Landscape and Presentation Elements, Infrastructure** and finally **Management, Security and Monitoring**. In the scope of Environmental Design Project, four types of users in Mount Nemrut defined as visitors; security guards; researches, officers and artists; and finally visitors participating festival. Considering these various types of users and their practices in site, not only problems regarding satisfaction of users' basic needs but also visitor safety and current interpretation of site are defined. After that, decisions regarding open and built areas; visitor practices and uses; administration and security are defined and EDP is prepared. In the context of EDP, vehicular approach to Mount Nemrut is rearranged as a part of whole visitor scenario. In addition, problematic existing buildings are removed and new buildings are proposed. Vehicular park which is located at the southwest of tumulus, is last stop for minibuses that transfer visitors from visitor center to tumulus. Besides vehicular park, amphitheatre is proposed which shows compliancy with topography as an

open air festival area adjacent to vehicular park at the north (Figure 41). There are three roads connecting vehicular park and tumulus: one of them is for walking, one of them is for climbing by mules and one of them is for wheelchair users. The road for wheelchair access is equipped with special vehicle moved by mules in which wheelchair users get and transferred to the tumulus. All these three roads reach to wooden deck which connects east, north, and west terraces and encircles tumulus at north in the form of crescent. This wooden deck also extends through east and west by following sacred ceremonial roads.

Besides open area arrangements, existing buildings in and around Mount Nemrut Tumulus are evaluated according to their visual unity, function, architectural quality and location. After that some of the existing buildings are decided to remove and new buildings are proposed in order to interpret the natural and cultural values of Mount Nemrut Tumulus to visitors, provide working spaces for researches in the field, shelter for guards and cabins for technical infrastructure. In that respect, two visitor centers one of which is located at Adiyaman entrance of tumulus and the other is located at Malatya entrance, field office for researches, guard house, and surveillance camera units (Figure 39) are proposed.

Aim of the construction of new visitor center in Mount Nemrut is defined as to satisfy the need of various type of visitors, answer the expectations of various visitor groups and propose open and enclosed areas for different interpretive activities.⁷⁵ Visitor Center located at the Adiyaman entrance is comparatively bigger and has more comprehensive architectural program comparing to visitor center located at Malatya entrance. This is because; %97 of tourist come from Adiyaman entrance to site. **Adiyaman Visitor Center** is constructed 2 km away from Mount Nemrut Tumulus, on the nearest not seen area from the tumulus. It is designed as starting point of the site visit and proposed as intelligent building that controls the number of visitor going to and coming from Mount Nemrut.

Adiyaman Visitor Center which is two storey structure, sits back to topography on one side and looks through the landscape on the other side (Figure 37). Vehicular parks for visitors coming by their own cars, exhibition areas equipped with contemporary

⁷⁵ Kommagene Nemrut Koruma Geliştirme Programı. (n.d.). Kommagene Nemrut Koruma Gelistirme Programi. Retrieved September 3, 2012, from <http://www.nemrut.org.tr>

presentation tools (Figure 36), resting areas, multi-purpose hall, sales unit, cafeteria, WCs and administrative offices are proposed regarding the needs of visitors in the visitor center. Architectural program of Adiyaman Visitor Center with the areas of the units are shown in Table 11. Besides Adiyaman Visitor Center, **Malatya Visitor Center** is constructed 2 km northeast of Mount Nemrut Tumulus in order to satisfy the needs of visitors coming from Malatya entrance. Malatya Visitor Center – which has one storey – shows similar architectural features with Adiyaman Visitor Center (Figure 38).

Table 11 Architectural Program of Adiyaman Visitor Center in Mount Nemrut. Source: Kommagene Nemrut Conservation and Development Program (2008). *Mount Nemrut Tumuli Environmental Design Project*. p. 437

ARCHITECTURAL PROGRAM OF ADIYAMAN VISITOR CENTER IN MOUNT NEMRUT			
GROUND FLOOR		SECOND FLOOR	
Interpretation and Presentation Areas	450 m ²	Interpretation and Presentation Areas	330 m ²
Retail Shop	50 m ²	Retail Shop	50 m ²
Resting Areas	60 m ²	Multi Purpose Hall	100 m ²
WC	40 m ²	Café (150 people)	200 m ²
Administration and Medical Doctor	135 m ²	Technical Services	50 m ²
Technical Services	25 m ²	TOTAL	730 m²
TOTAL	760 m²		
GRAND TOTAL		1490 m²	

Moreover, visitor scenario that organizes and control visitors throughout their visit in Mount Nemrut is proposed (Table 12). According to visitor scenario, visitors enter the Mount Nemrut National Park will first buy smart entrance ticket that includes interpretive brochures of the park. Later, visitors go to visitor center's car park and then enter visitor center. From now on, site guide will accompany visitors throughout their visit in park. After their experience in visitor center by the guidance of site guides with the help of various interpretive activities and facilities, visitors go to Tumulus with a special minibuses accompanied by site guide. Visitors get off from the minibuses at the drop off point located at the festival area and orient to the tumulus by choosing one of the three roads regarding their needs and expectations. After visitors' excursion on

Tumulus, they walk back to drop off point, get in minibuses and go to visitor center. There are two alternatives for visitors coming back to visitor center: first alternative is leaving Mount Nemrut and the other alternative is spending their nights in visitor center and waiting for the sunrise there. Visitors who prefer to wait for the sunrise, rest in the areas reserved for this purpose and satisfy their needs in 24 hour open visitor center. In the time of sunrise, they climb back to tumulus and experience the sunrise there.

In the content of visitor scenario; restrictions regarding number of visitors are also stated. Mount Nemrut gets crowded especially during sunrise and sunset and all the visitors gathers in east or west terraces at sunrise and sunset. This situation result decrease in visitor experiences and accelerate deterioration. So that it is important to control number of visitors that are on the terrace at one time. In the scope of Environmental Design Project, number of visitors during sunrise and sunset is restricted and it is limited as 150 visitors. Not only during sunrise and sunsets, but also in regular times; number of visitors and duration of site visit is limited. Number of visitors at Mount Nemrut at each time is defined as maximum 250 visitors and duration of visit is defined as at most three hours. Moreover, at the times when number of visitors exceeds the capacity of site, increasing the fees of entrances to site during sunrise and sunset or welcoming visitors with pre – reservations only are on the agenda in order to control the demand of visitors.

In addition to all these proposals, decisions regarding presentation and landscape elements, infrastructure and administration and security are developed. Today, many **Presentation and Landscape Elements** such as sitting units, chained barriers, trash bins, and information and interpretation panels are placed in Mount Nemrut in order to improve and enrich physical environment. Not only design and material quality, but also number of these elements is insufficient. In the scope of EDP, new presentation and landscape elements such as labels for sculptures, base for chained barriers, visitor directions panels, information panels for terraces, sitting units and trash bins are designed in order to provide relevant interpretation of site and ensure the security of Mount Nemrut (Figure 40). These presentation and landscape elements are designed with natural stone which is compatible to natural and cultural resources of Mount Nemrut.

In the current state, **Infrastructure Elements** of Mount Nemrut is insufficient. For example, there is no electricity and water around Tumulus. In the report of EDP, it is

stated that electricity and water should be supplied without giving damage to natural and cultural landscape of Mount Nemrut in order to provide security at the site and satisfy the needs of visitors.

In the scope of the EDP, decisions regarding **Management and Security** are also stated and administrative structure of the site is established. Today, there are four security guides providing security of the site today. Four security guards are not sufficient in order to ensure security of Mount Nemrut. In that respect, the site guides will accompany the visitors throughout their site visit according to EDP and local residents will be educated as site guides. Security of site will be provided will be surveillance cameras in 24 hours of the day.



Figure 35 Mount Nemrut Tumuli Environmental Design Project. Source: ODTÜ - SAYKA Archive

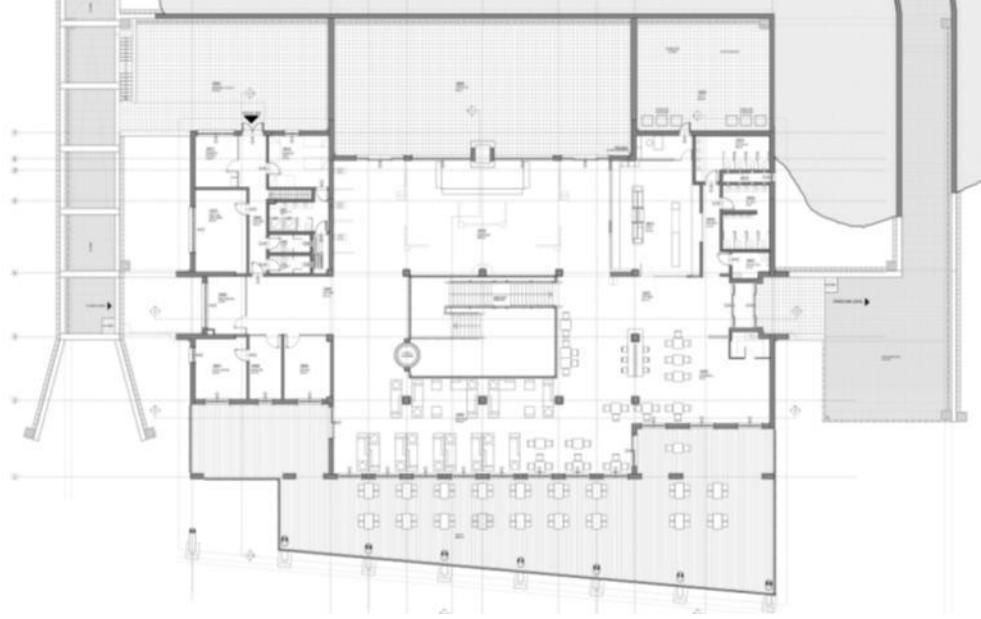


Figure 37 Adıyaman Visitor Center. Top: Plan, Bottom: 3D Perspective. Source: ODTÜ – SAYKA Archive



Figure 36 Interpretation in Adıyaman Visitor Center. Source: ODTÜ - SAYKA Archive

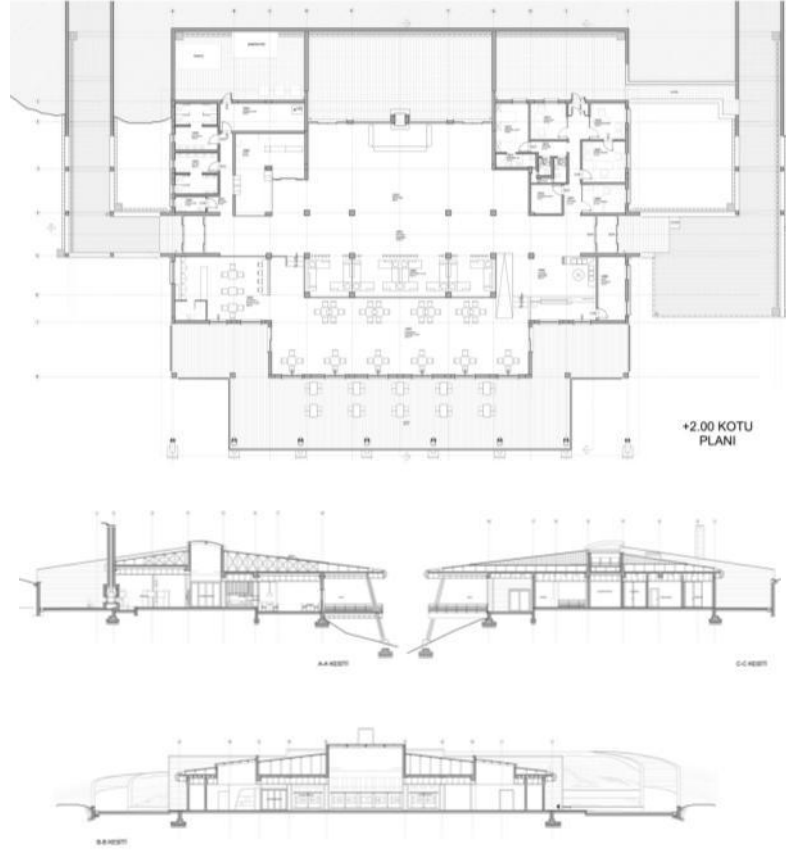


Figure 38 Malatya Visitor Center. Top: Plan, Bottom: Sections. Source: ODTÜ - SAYKA Archive

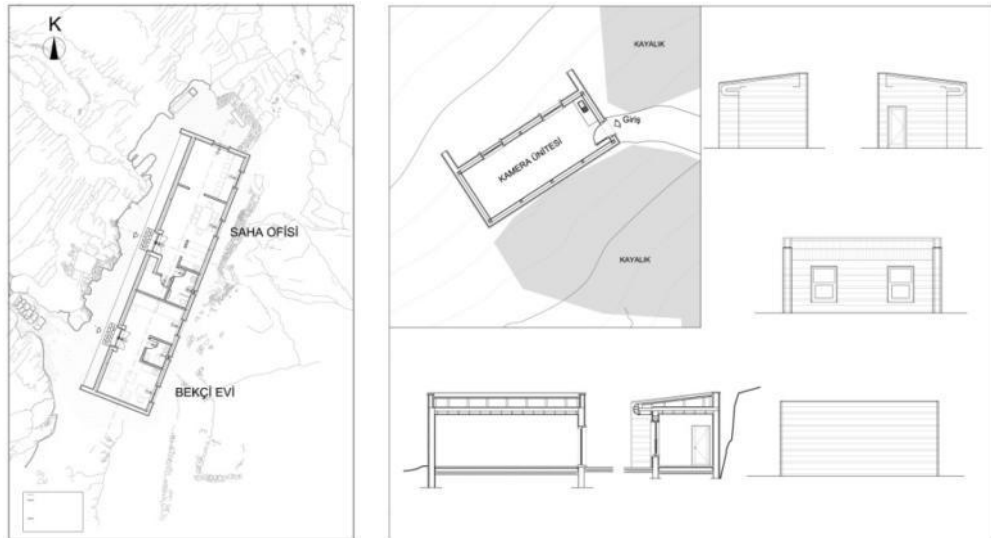


Figure 39 Guardhouse, Field Office and Surveillance Camera Unit. Source: ODTÜ – SAYKA Archive

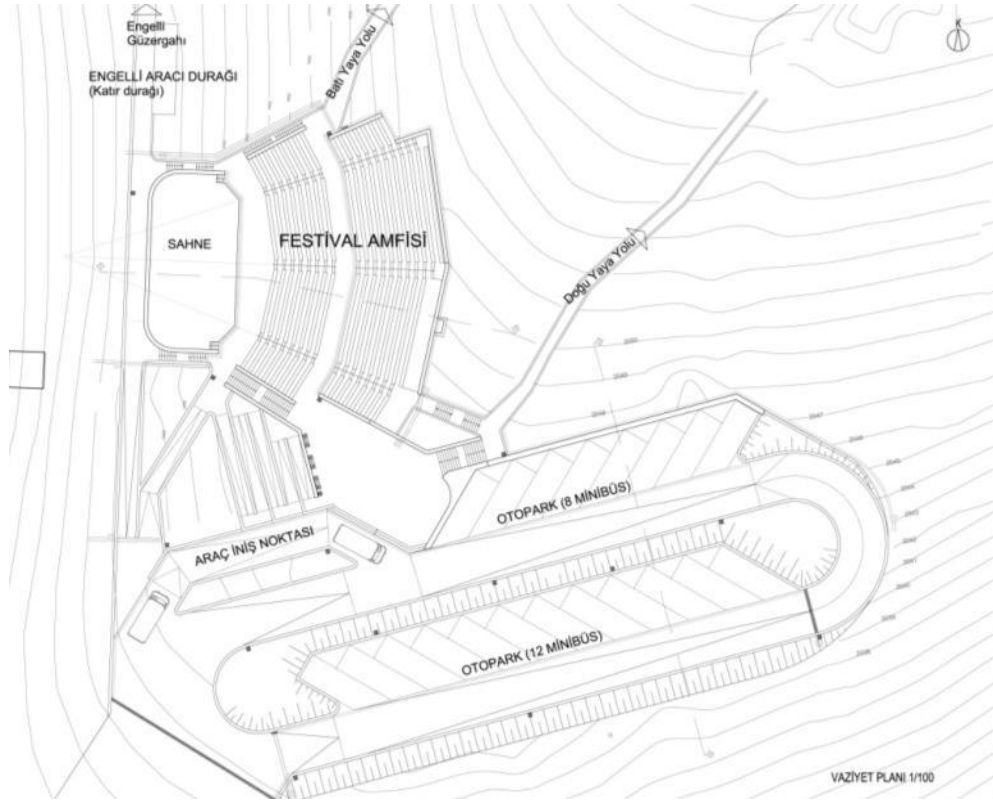
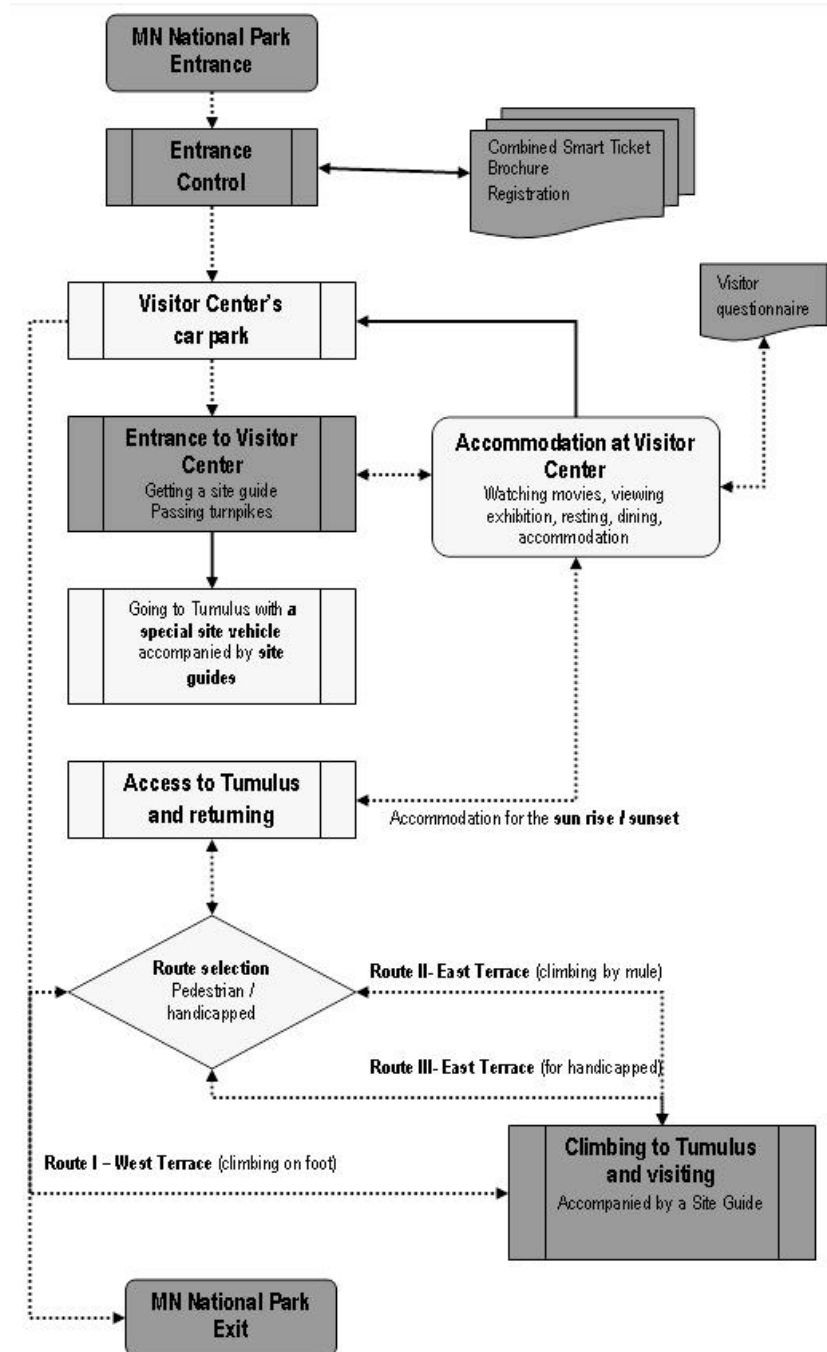


Figure 41 Nemrut Festival Amphitheatre with Vehicular Park. Source: ODTÜ - SAYKA Archive



Figure 40 Street Furnitures. Source: ODTÜ - SAYKA Archive

Table 12 Visitor Scenario for Mount Nemrut Environmental Design Project. Source: Kommagene Nemrut Conservation and Development Program (2008). Mount Nemrut Tumuli Environmental Design Project. p. 652



2.2.4. ASSESSMENT OF THE SELECTED CASE STUDIES

By the means of case studies mentioned above, examples of effective heritage interpretation practices by stating their specific features and contents with current tools and methods are pointed out. So that, how theoretical principles and guidelines are applied to the heritage site is experimented.

These three case studies from various regions of the world approach to problem of interpretation and presentation in similar manner. They propose alike methods from the analysis of current state to value assessment and problem definition in the way of project proposal. Besides their methods, another similarity between these case studies is their comprehensive content. Features and must haves of effective interpretation plan/project by giving reference to case studies are detailed above.

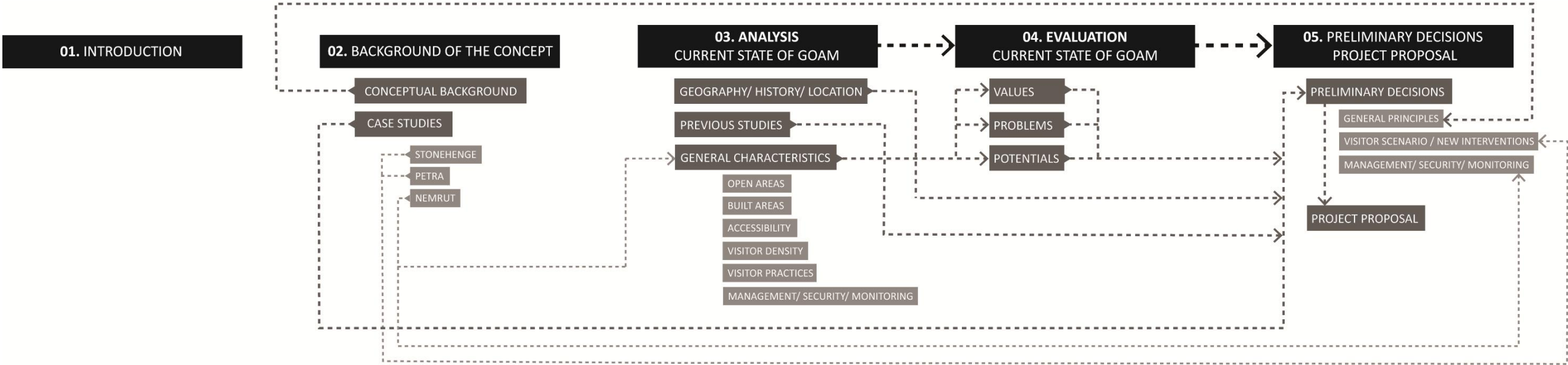
Effective interpretive plan should be **organized** and **thematic** as exemplified in the case of Petra Archaeological Park Interpretive Plan. By the means of organizing interpretive plan under the phases of introduction, development and conclusion; visitors' will adapt to the heritage site easily. In addition to being organized, interpretive plan with relevant themes will help visitor to understand the site without difficulty and as a result appreciation and protection of heritage site will be resulted. Besides organized and thematic features of effective interpretive plan, **accessibility; visitor management; interpretive opportunities; and management and security** are defined must haves of interpretive plan based on the case studies. Heritage site must be accessible in all aspects in order to reach as many audiences as possible. As exemplified in the case of Stonehenge, the site is designed in a way that wheelchair users visit without any obstacle. Moreover, wheelchair loans and accessible restrooms are provided. Besides wheelchair access, braille guides are prepared for visually impaired visitors and tour transcripts are offered for hearing impaired visitors. Visitor management of heritage site is important so as to reduce deteriorations and destructions caused by the uncontrolled use. Moreover, visitor management will increase visitor experiences during their site visit due to providing non-crowded and organized visit. Interpretive opportunities in heritage sites are very broad concept that includes personal and non-personal methods in order to satisfy visitor needs and provide enjoyable visit. As stated in the case studies, there are various opportunities such as visitor center, interpretive signs, on-site and off-site interpretive activities, brochures, websites, maps, mobile applications etc. In the case studies, various alternatives of these opportunities are demonstrated. For instance, three

different approaches to visitor center are exemplified and their various design approaches and architectural programs are stated. Moreover, various types of interpretive signs are demonstrated. Finally, management and security is considered as an integral part of effective interpretive plan as stated in case of Mount Nemrut. This is because; proper management and taken security measurement will provide sustainability of heritage sites.

The information gathered from these case studies helped to define methodology of this thesis as follows (Table 13). First, historical and geographic features of Göreme Open Air Museum are described and significance of place is defined in order to establish basis for interpretive content. After that, current state of GOAM is analysed and evaluated by giving references to analysis and evaluation titles of Mount Nemrut EDP, finally preliminary decisions are made as a part of the EDP proposal. These three phases of interpretation is interrelated to each other and constitute indivisible whole. In addition to methodology, features and content of “Environmental Design Project of GOAM” are defined by the help of experiences that are gained from case studies in the preliminary decisions and project proposal stage of the thesis. For instance, interpretive program is divided into four sections and organized considering visitors’ experience before, during and after their museum visits. Moreover, interpretive themes are stated by giving references to cultural and natural features and significance of GOAM. Also, contemporary tools and various media are proposed in order to interpret GOAM in relevant manner.

To sum up, examples of effective heritage interpretation practices help to define methodology of the environmental design project preparation in this thesis. Besides methodology, features and content of the “Environmental Design Project for GOAM” presented in the “Preliminary Decisions and Project Proposal” chapter of the thesis are constituted according to case studies by giving references to interpretive opportunities mentioned above.

Table 13 Methodology of the Thesis



CHAPTER 3

CURRENT STATE OF GÖREME OPEN AIR MUSEUM (GOAM) IN CAPPADOCIA

Göreme Open Air Museum, which is located in the center of Cappadocia, is an area where landscape of Cappadocia is integrated with workmanship of humans because of rock block carvings to form spaces such as dwellings, depots, churches and monasteries. In that respect, Göreme Open Air Museum, which is a place where nature and culture is melted in the same pot, is integral part of Cappadocia in wider context, so that general features of Cappadocia should be mentioned first in order to understand Göreme Open Air Museum.

3.1. GEOGRAPHY AND BRIEF HISTORY OF GÖREME OPEN AIR MUSEUM (GOAM) IN CAPPADOCIA

Cappadocia is located in the southeastern of Central Anatolia Region in Turkey and in the boundaries of Nevşehir, Aksaray, Niğde, Kayseri, and Kırşehir today. Boundaries of Cappadocia are defined by the unique geographical formations shaped by differential erosion of the volcanic tuff sediments by wind and water.⁷⁶

Cappadocia is located in Hasan Dağ and Erciyes Dağ volcanic region. These two volcanos are the dominant features of Cappadocia for both being two highest mountains in the region and their effect in formation of landscape. Lava flows of Hasan Dağ and Erciyes Dağ formed layer of tuff which shows variety on hardness and thickness, on the plateaus. Plateaus, having been essentially shaped with the lava from the volcanoes, were continuously shaped with the eruptions of other volcanoes throughout the centuries. Then, wind, climate, rain, and rivers are the types of erosion that gave Cappadocia its

⁷⁶ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). UNESCO World Heritage Centre. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/357/>

characteristic and unique formations. In these respects, Cappadocia is an outstanding case which represents the Earth's geographic history. Climate in Cappadocia, with sharp changes of temperature, heavy rains, and melting snow in the spring, plays an important role in the formation of the Cappadocia landscape. These erosional land forms are in variety of shapes: cones, columns, towers, pyramids, obelisks, and needles. They reach up to heights of forty meters. Besides cones, columns, towers, pyramids etc., external forces such as wind, rain and rivers also formed valleys such as Zelve and Göreme. Göreme Open Air Museum is part of these valley formations. Within these rock formations of Cappadocia, people have excavated spaces which are dwellings, depots and church, monasteries, chapels dating from the 4th century. These rock cut spaces of Cappadocia constitute artistic achievement of Byzantine Empire in a region of unique natural landscape. Besides rock cut spaces and underground cities, there are many historic settlements in Cappadocia, and some of them are Göreme, Uçhisar, Ortahisar, Çavuşin and Zelve.⁷⁷

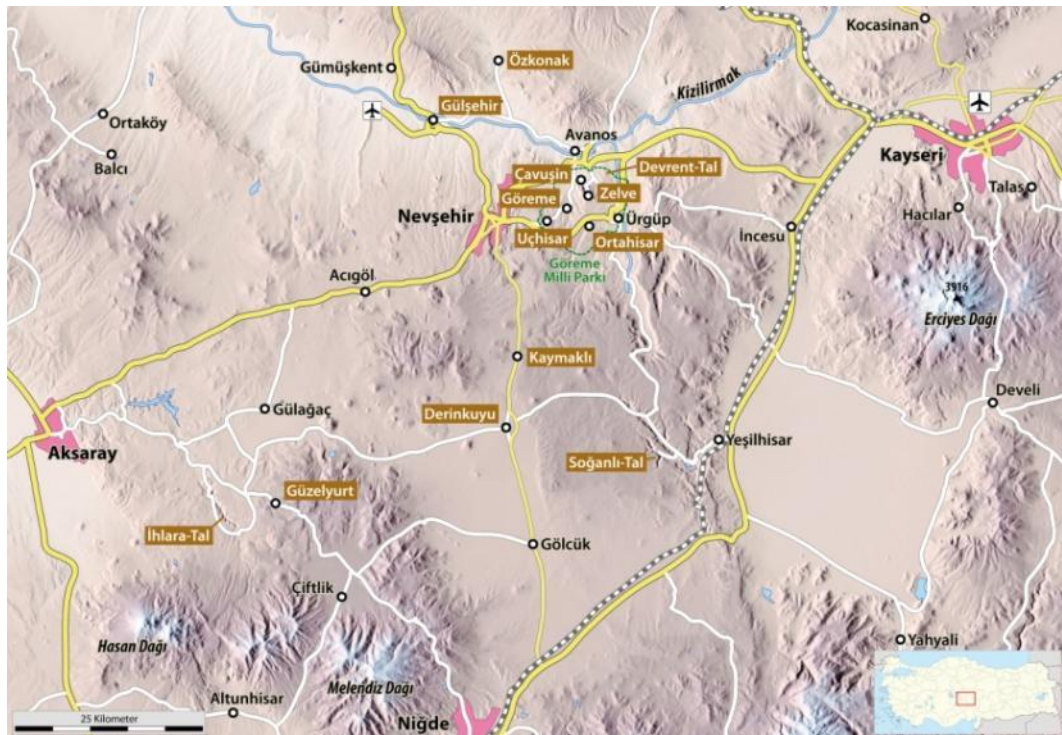


Figure 42 Map of Cappadocia. Source:

http://upload.wikimedia.org/wikipedia/commons/archive/d/dc/20090628153039!Map_of_Cappadocia.jpg , last access in 23 January 2011.

⁷⁷ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). UNESCO World Heritage Centre. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/357/>

History of Cappadocia dates back to Hittite times, when the first caves are excavated. From Hittite times to Assyrian and Roman rule, Caeserae today called as Kayseri was important provincial center. As a result of being on the boundary between ancient Greek and Persian Empires, and later between the Byzantine Greeks and their Persian, Ummayad, Abbasid, Seljukid and Ottoman opponents, hidden sanctuaries – that can be constructed easily by the help of easily carved rock of Cappadocia – were often needed.

Cappadocia was firstly a place for Christian anchorites escaped from Roman persecution. Later then, Cappadocia became a monastic community in 4th century. It is believed that Cappadocia became a monastic community in 4th century just after small anchoritic communities began inhabiting cells which are cut from rock blocks. Later on, in order to defend their selves from Arab attacks, they began living together in rock cut spaces or underground cities such as Kaymaklı or Derinkuyu which served as places of refuge.⁷⁸

For the next nine centuries, an urbanized landscape developed from the cliffs and pillars of tuffs: carved living quarters, stables, storerooms, and places of worships. Frescoes in the chapels which are drawn by monks in 7th century and later are so far from being effected from iconoclasm. This is because, Cappadocian monasticism was already well established in the iconoclast period (725-842), as can be seen in wall paintings of many rock cut spaces, which are illustrated with minimum of symbols due to restrictions of iconoclasm. On the other hand, after mid-9th century, many rock cut churches with wall paintings were built in Cappadocia. These rock cut churches were richly decorated with brightly coloured and figurative wall paintings. Among them were those in today's Göreme Open Air Museum : Tokalı Church, Barbara Church, Elmalı Church and Karanlık Church (end of the 12th to beginning of the 13th centuries), etc.⁷⁹ These frescos remained even into Ottoman times, but from Ottoman times to today some of these frescoes are disappeared. On the other hand, some of the frescoes which are examples

⁷⁸ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). UNESCO World Heritage Centre. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/357/>

⁷⁹ *ibid.*

of post-iconoclastic sacred art have been conserved by the dark and dry conditions of underground.⁸⁰

Geography, history, and architecture of Cappadocia have strong interrelationships between each other. This is because, Christians escaping from the Arab attacks settled in Cappadocia as a result of geographical features such as underground cities and valley formations where people can hide easily. Moreover, Christians escaping from Arab attacks carved out rock cut spaces from easily carved tuffs and formed the unique architecture of Cappadocia. Significance and uniqueness of Cappadocia is a result of such interrelationships between these three phenomena.

3.2. LOCATION OF GÖREME OPEN AIR MUSEUM (GOAM) AND ITS SURROUNDING ATTRACTIONS

Göreme Open Air Museum – which is one of the two open air museums, the other open air museum is Zelve Open Air Museum in Cappadocia – is in administrative boundaries of Nevşehir and located 13 kilometers east of Nevşehir city center (Figure 43). Göreme Open Air Museum is located on the road between Göreme and Ortahisar, which provides main vehicular access to museum, and 2 kilometers east of Göreme town center (Figure 44). Besides its administrative boundaries, Göreme Open Air Museum is located in the boundaries of First Degree Archeological and Natural Site and Göreme National Park (Figure 45).

Cappadocia as a land of unique geographical formations of eroded plateaus and rock cut spaces carved from unusual land forms produce mixed cultural and natural landscape of extraordinary presence.⁸¹ These exclusive features of Cappadocia caused the area touristic attraction worldwide. In addition to Göreme Open Air Museum, there are historic towns, rock cut churches, walking trails, open air museums etc. nearby GOAM in Cappadocia (Figure 46).

⁸⁰ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). UNESCO World Heritage Centre. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/357/>

⁸¹ *ibid.*

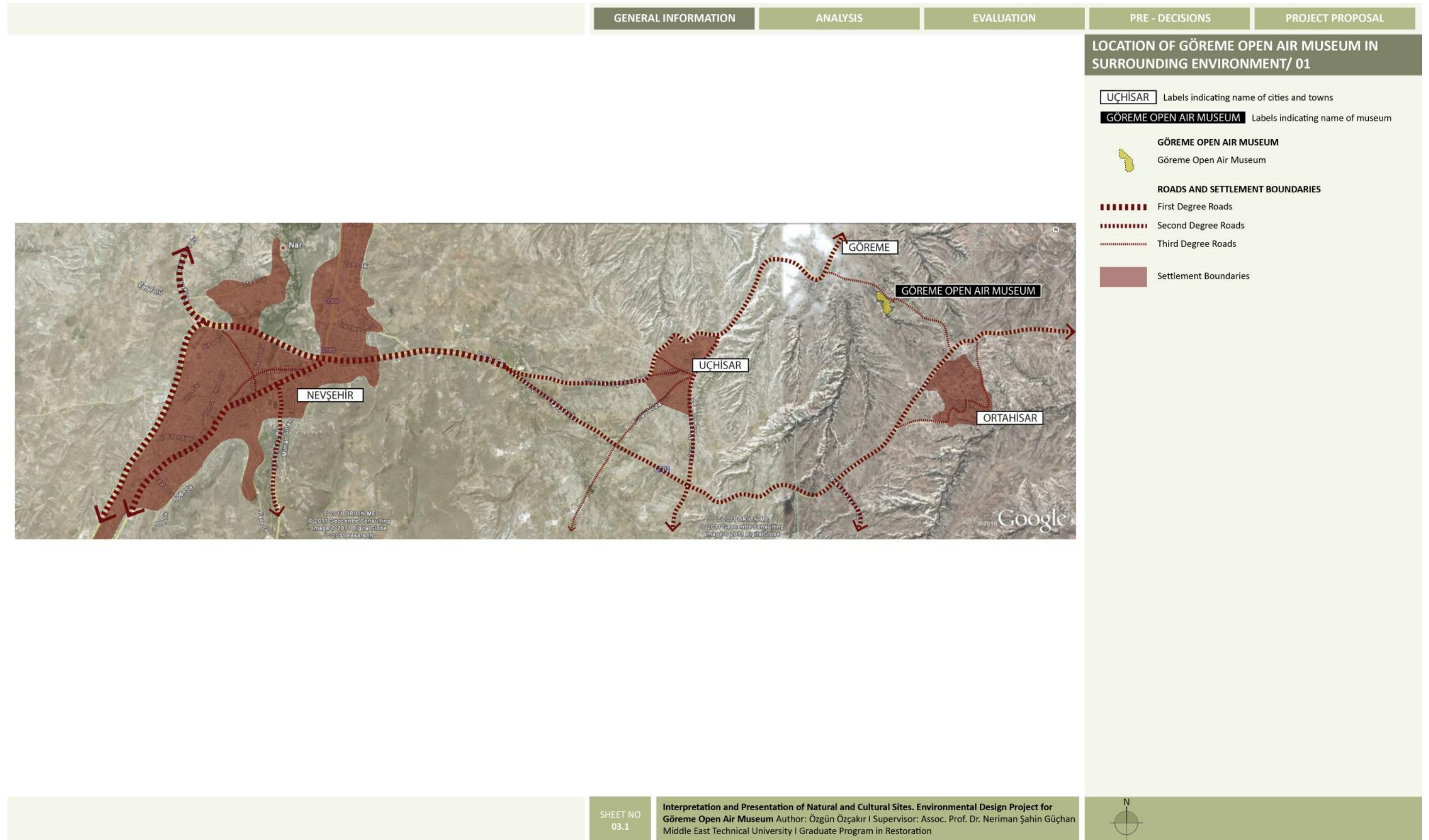


Figure 43 Location of Göreme Open Air Museum in Surrounding Environment/ 01

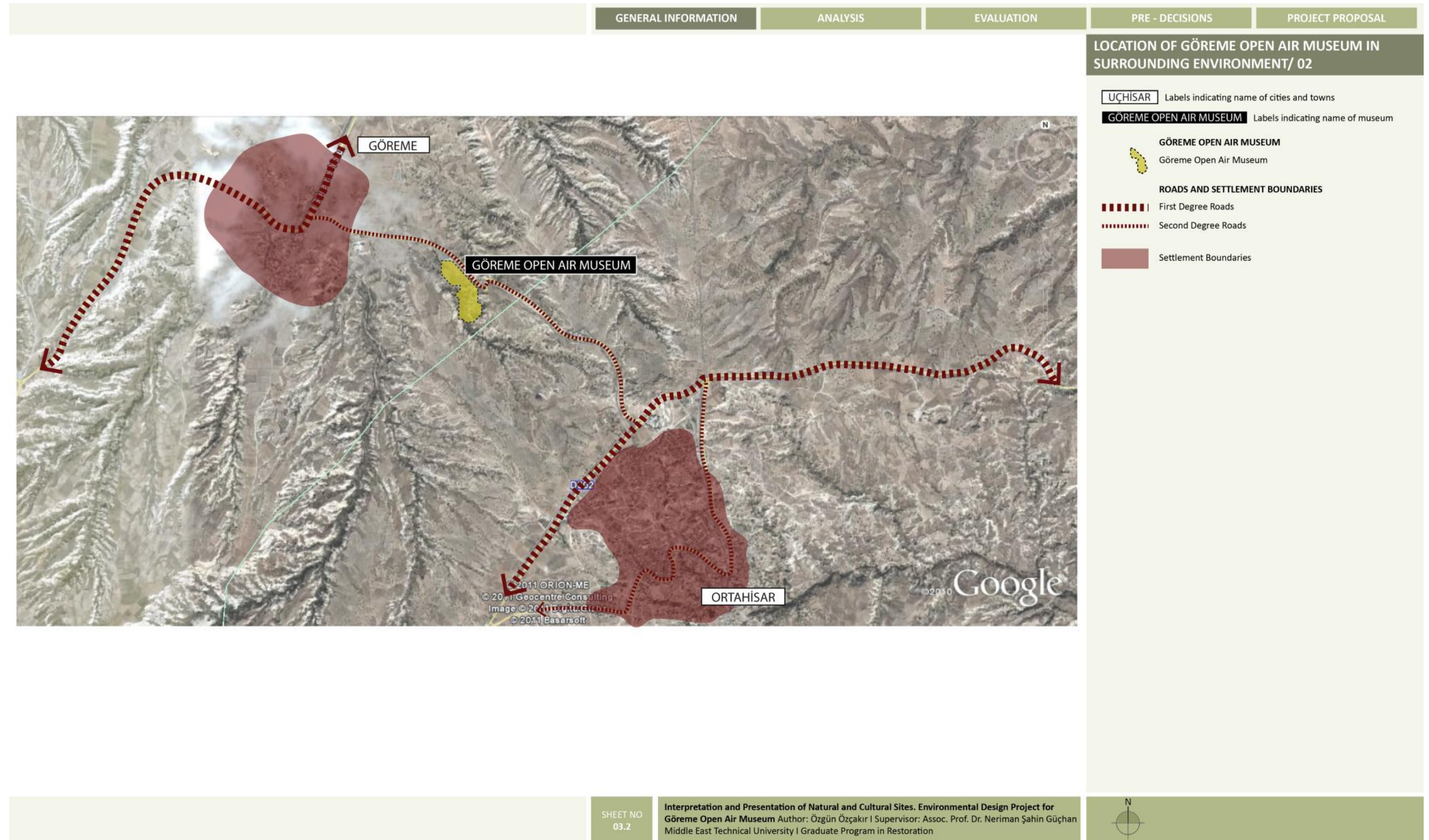


Figure 44 Location of Göreme Open Air Museum in Surrounding Environment/ 02

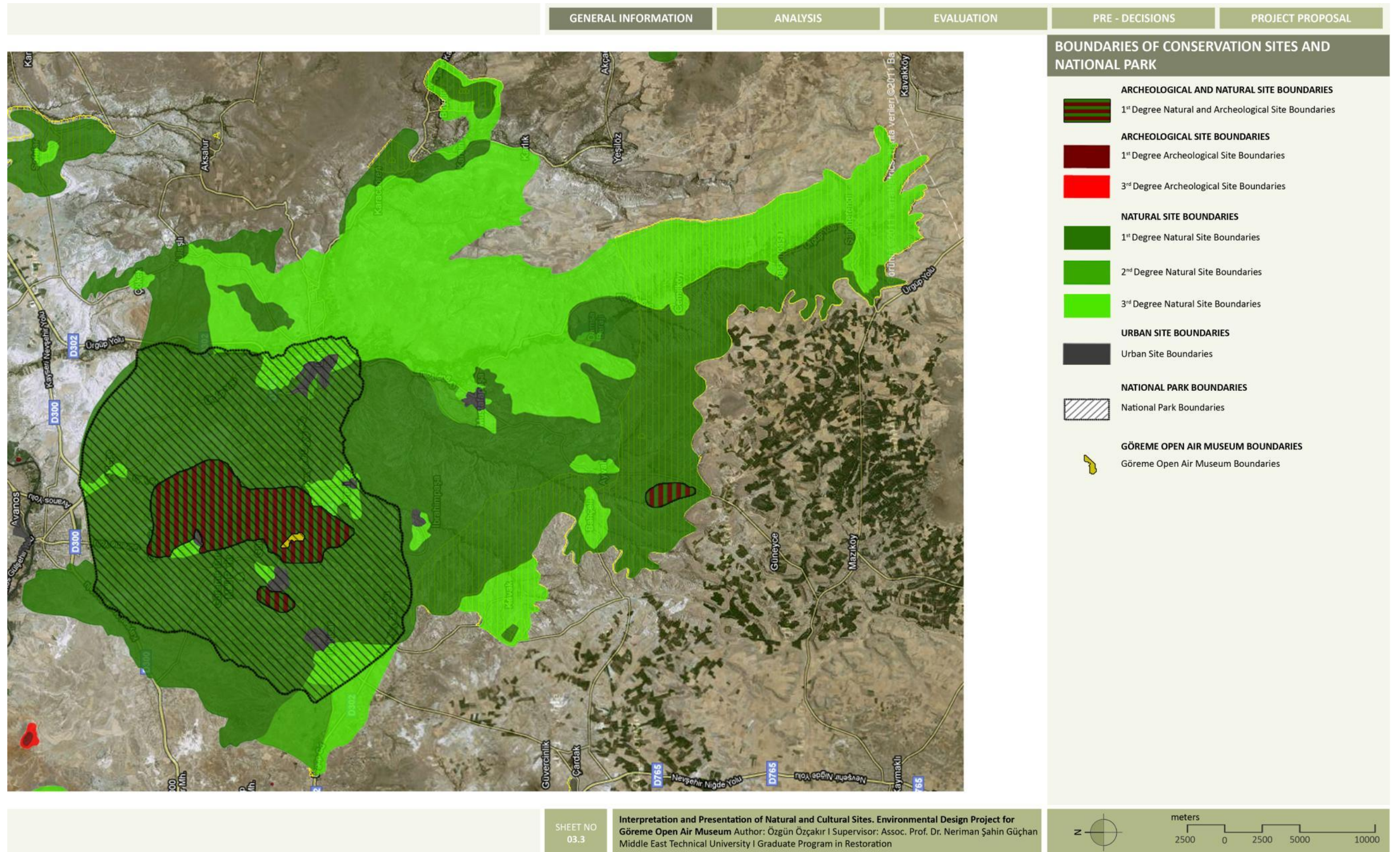


Figure 45 Boundaries of Conservation Sites and National Park

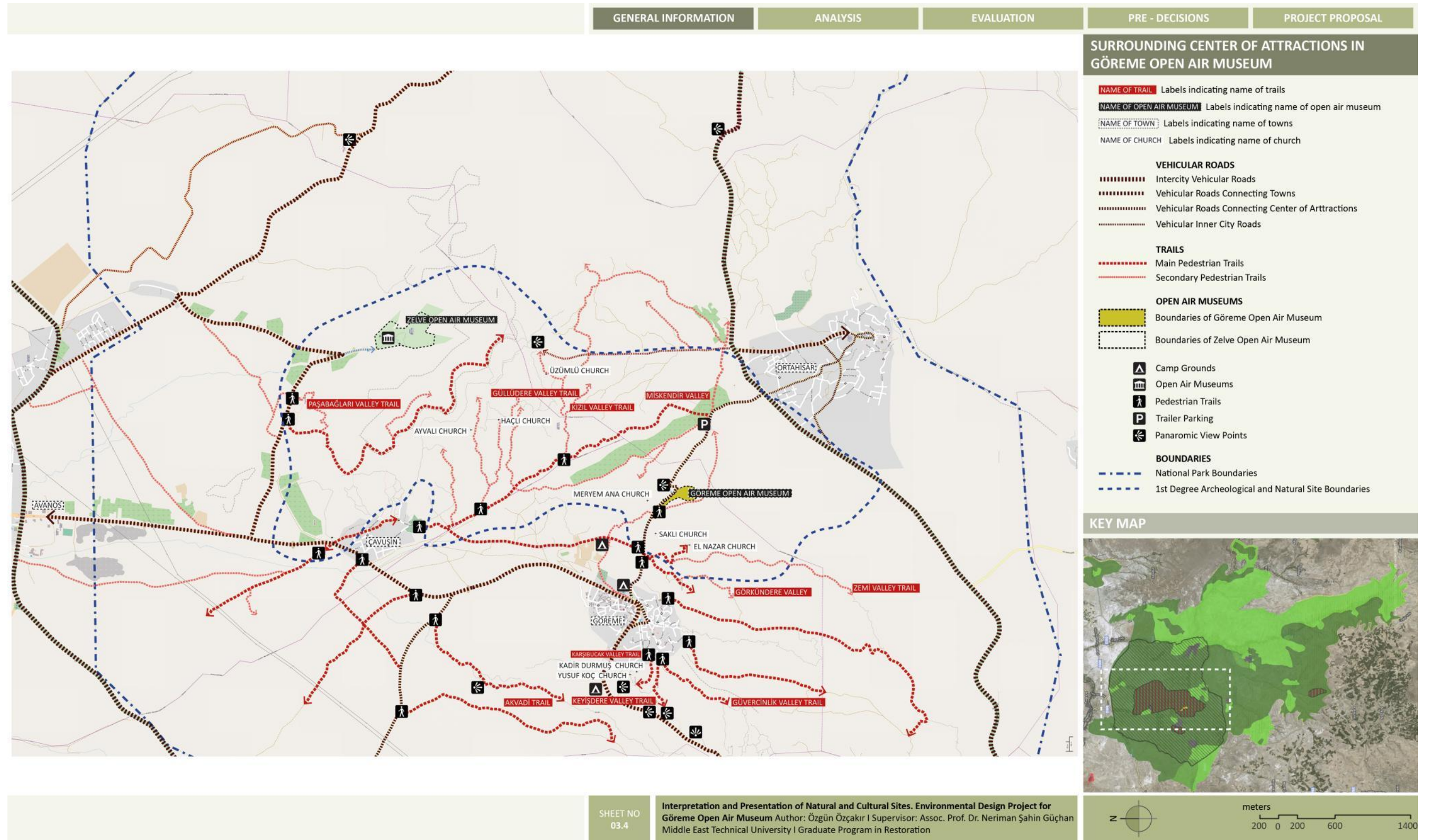


Figure 46 Surrounding Center of Attractions in Göreme Open Air Museum

3.3. STUDIES ON INTERPRETATION AND PRESENTATION OF GÖREME OPEN AIR MUSEUM (GOAM)

In 1956, rock cut spaces in Göreme region is arranged as open air museum and Göreme Open Air Museum opened its gates to the public.⁸² From now on, there are several projects intervened in GOAM as seen in aerial photographs of museum taken in 1957, 1966 and 1992 (Figure 47). As seen in the aerial photos taken in different dates, vehicular road between Göreme and Ortahisar is improved and vehicular park at the north of GOAM is implemented. Projects and plans of GOAM are built in order to improve visitor facilities such as vehicular roads and parks, WC, and restaurants etc. In this part of the thesis, these proposals are detailed.

The first and most comprehensive study on interpretation and presentation of GOAM is “Long Term Development Plan of Göreme National Park” which is prepared in 1971 by the collaboration between Turkish Government and USAID.⁸³ Other studies – all of which are prepared after 1971 and presented to various Council for Protection of Cultural and Natural Entities in different dates – are mostly focal projects dealing with vehicular approach, shelters, eroded stairs, entrance tolls, and museum shop. In the contrary to focal projects, only comprehensive study presented to council is “Environmental Design Project of Göreme Open Air Museum” which is designed by PROTA in 1991. These studies are mentioned below in detail in two parts: “Long Term Development Plan for Göreme National Park” and “Studies Presented to Council for Protection of Natural and Cultural Entities”.

3.3.1. LONG TERM DEVELOPMENT PLAN FOR GÖREME NATIONAL PARK

“Long Term Development Plan of Göreme National Park” is comprehensive plan that develops strategies for whole Göreme National Park including visitor center, vehicular access, museum trails, administrative structure for whole national park, infrastructure, visitor use and interventions to historic building.

⁸² Yenipinar, H. (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. In Olşen, K., et al (Ed.), *Müze çalışmaları ve Kurtarma Kazıları Sempozyumu: 24 - 26 Nisan 2000, Denizli.* (p. 207). (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. Ankara: Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayını.

⁸³ Long Term Development Plan of Göreme National Park (USAID, United States National Park Service and General Directorate of National Parks of Turkey), 1971.

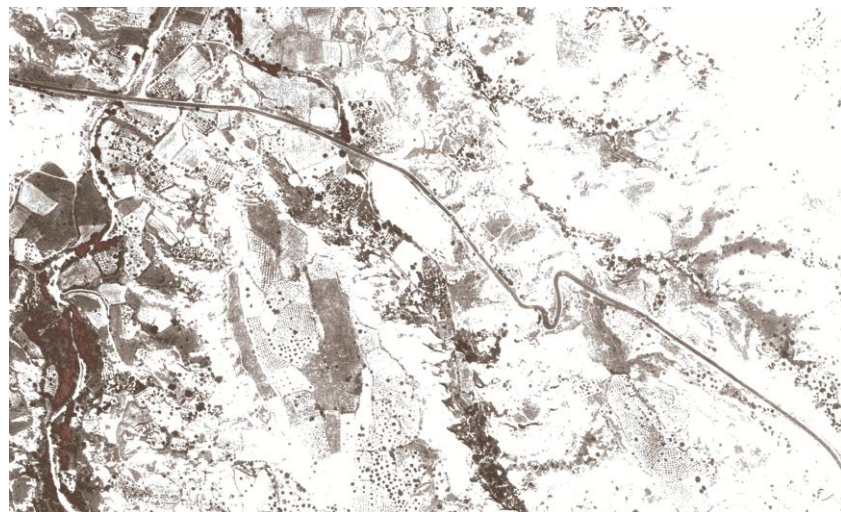
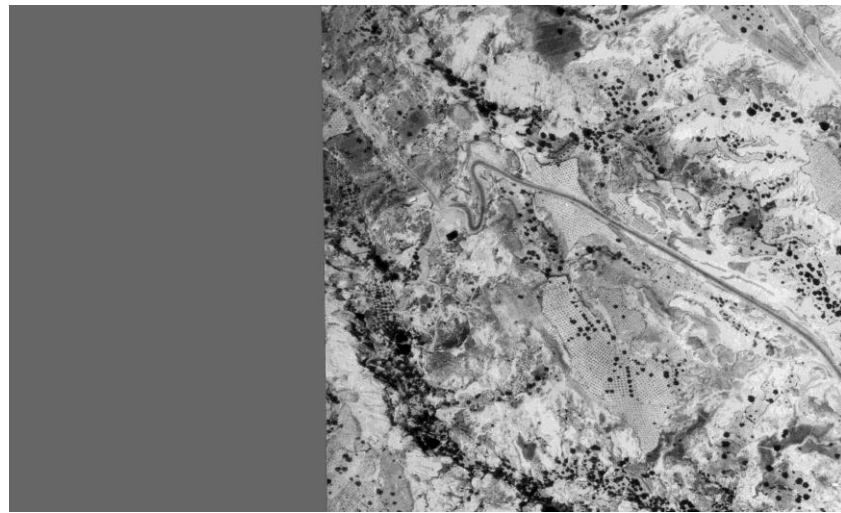
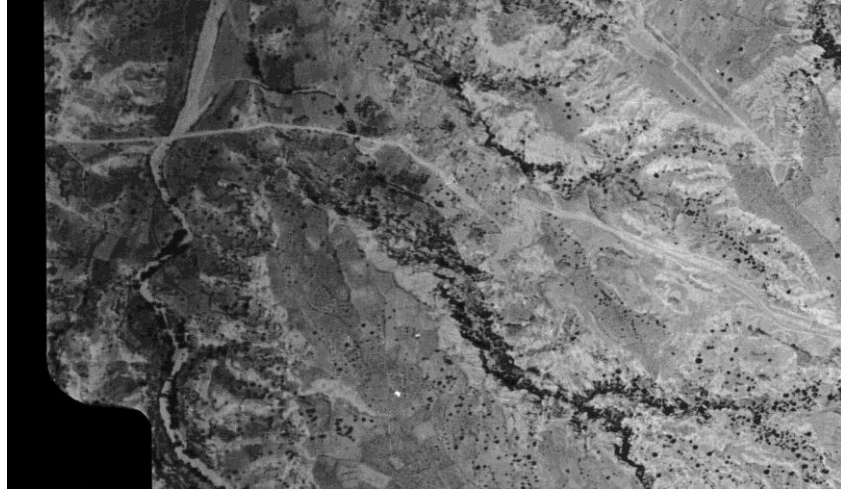


Figure 47 Aerial Photographs of GOAM and its Surrounding Environment. Top: 1957 Aerial Photo, Middle: 1966 Aerial Photo, Bottom: 1996 Aerial Photo. Source: General Command of Mapping.

As being part of “Göreme National Park”, strategies are also developed for today’s Göreme Open Air Museum by giving references to values and problems of museum (Figure 48). In the scope of the long term development plan; decisions regarding vehicular approach, museum trail, interpretive content and brochures, visitor management, administration and security, and new buildings are developed in GOAM.

Vehicular approach to GOAM which is same as current vehicular approach is decided to be removed due to its negative and destructive affects to natural environment. Besides vehicular approach, vehicular park is decided to be removed for the same reason. As a result of the potential acceleration in the visitor numbers, new vehicular approach and park is designed at the north of current road in a way that can be enlarged. Besides new vehicular park, new museum trail – which is said to be most important center of attraction in national park – is proposed for GOAM. In that respect, proper design and interpretation of the trail has crucial importance. In the scope of the project, new GOAM Trail is designed as a loop that starts from new vehicular park, then passes through the rock cut spaces that are open to public in GOAM and finally arrives to the vehicular park again. Rock cut spaces that are located throughout the loop in sequential order are Tokalı Kilise, Erkekler Monastery, Rahibeler Monastery, St. Basil Chapel, Elmalı Church, St. Barbara Chapel, Yılanlı Church, Refectory above Yılanlı Church, Karanlık Church, and Çarıklı Church. Besides these spaces, Pigeon Houses outside the boundaries of GOAM are included to the trail due to being seen from the GOAM Trail and being significant to Cappadocia. According to long term development plan, GOAM Trail will be constructed in two or three meters width depending on the density. GOAM Trail will pass through the route where minimum excavation works is needed during construction. In addition to excavation works, water drainage and pavement should be provided throughout the museum trail in order to prevent damages to the tuff stones.

Significance of rock cut spaces with architectural features of rock cut spaces are decided to take place in the free trail brochure and guide book according to long term development plan. Also, in front of the each rock cut space which is presented to the visitors, interpretive panels that plans of the rock cut spaces are placed will be located. This plan will be integrated to the explanations of the rock cut spaces on the free trail brochure and guide book. Despite principle decisions regarding interpretive panels, guidebooks, and brochures, any design proposal was not developed in the scope of plan.

Moreover, number of visitors should be controlled in rock cut spaces in order to reduce rapid deterioration of these spaces. Sometimes, there may be need for closure of some rock cut spaces to the visit. In such cases, wire meshes will be installed to the entrance and openings of rock cut spaces and they will be allow to view outside. Additionally, lighting of rock cut spaces throughout the GOAM Trail will be provided by flashlights working with batteries.

In the “Long Term Development Plan”, park officers who are responsible for interpretation and safeguarding of GOAM Trail will be employed in the proposed information center located near to Tokalı Church. If freelance tour guides are employed besides park officers, information center will be tour guide’s gathering point. Besides information center, decisions regarding visitor facilities in GOAM are developed. In the plan, current facilities such as coffee shops, restaurants, and souvenir shops are decided to be removed due to their physically and visually damage to the park. All these facilities will be moved to the new visitor center which will be designed in the Göreme town center. On the contrary to shops and restaurants, underground WC located near to churches is decided to stay in its place by renovating its infrastructure and sewage system.

In spite of such a comprehensive study on relevant interpretation of GOAM and satisfaction of visitor needs during their visit, Long Term Development Plan is not implemented.

3.3.2. STUDIES APPROVED BY COUNCIL FOR CONSERVATION OF NATURAL AND CULTURAL ENTITIES

There are several project presented to council for conservation of natural and cultural entities and approved. While being approved by the council, all of the projects are not implemented for financial reasons as stated by the Director of Nevşehir Regional Council for Conservation of Cultural Entities, Mr. Mevlüt Çoşkun.

There are three types of projects gathered from archive of Nevşehir Regional Council for Protection of Cultural Entities as defined by author: **project proposals**, **interventions** and **removals**. These project proposals, interventions and removals are presented in order to understand what is proposed or implemented in order to improve visitor facilities in the site and improve their experiences during their site visit. These project proposals,

interventions and removals are mentioned below by giving references to their implementation status and mapped in Figure 51.

a. Project Proposals

There are three projects proposed to GOAM: Göreme Open Air Museum Environmental Design Project, Open Area Design Project between Elmalı Church and Karanlık Church and Electronic Entrance System and Entrance Toll Arrangement. While first two projects are not implemented, the last one is implemented.

Göreme Open Air Museum Environmental Design Project is one and only project prepared for Göreme Open Air Museum in comprehensive and complementary manner. This project is prepared by PROTA and presented to Kayseri Council for Conservation of Natural and Cultural Entities in 10.05.1991 and approved by council.

The boundaries of GOAM Environmental Design Project is defined as the vehicular park at north, existing vehicular park located at the east of GOAM entrance, and the area defined open air museum in environmental design project which is surrounded by the continuous rock blocks.

The aim of the project is defined as designing viewing terraces in the areas with visual values so as to emphasize historical and geological features of GOAM, proposing new vehicular park and service facilities for various types of vehicles, arrangement of pedestrian circulation from vehicular park to GOAM, defining resting spaces and places for satisfying visitor needs, describing standards for souvenir and handcrafts shops in GOAM, and providing integration of GOAM with the surrounding environment by arranging pedestrian circulation in a way that improve perception of historical features and values of museum. Environmental Design Project of Göreme Open Air Museum contains two sections adhering to these objectives: the analysis of current state of GOAM and project proposal. Analysis is conducted under two titles: first one is natural features and land use scheme, and second one is visual and spatial interrelationships (Figure 55). Besides analysis, Environmental Design Project of Göreme Open Air Museum consists of three parts as vehicular park design, open air museum and arrangement of pedestrian road between vehicular park and open air museum (Figure 56).

In the scope of the project, vehicular road between Göreme and Ortahisar that provide access to GOAM is closed to vehicular traffic and vehicular park designed at the end of

the road. All of the vehicles are directed to the new vehicular park located at the north. Vehicular Park is composed of two platforms located on different levels. On the upper platform, parking areas for cars and facilities such as control, information, WC, post office and shopping kiosks are placed embedded to the topography. On the lower platform, there are parking areas for cars, motorcycles, bicycles, vans and buses. Parking area is arranged in a way that maximum vehicles in various types can park especially in crowded days.

Second part of environmental design project is defined as open air museum. According to project, existing information and control building located at the entrance of museum and existing DÖSİM building which is embedded to ground are decided to sustain its function in its same place. Moreover, café and restaurant is proposed at the top of the DÖSİM building.

Finally, third part of the project is pedestrian connection between vehicular park and open air museum. Two alternatives are proposed in pedestrian connection. First alternative is vehicular road between Göreme and Ortahisar which is converted to pedestrian road and reserved for museum visitors walking from vehicular park to GOAM entrance. Second alternative is pedestrian road located at the south of the vehicular park. This road follows topography lines in order to reduce excavation works on the landscape and arrives to Tokalı Church. In front of Tokalı Church and at the north of the museum entrance which are defined as “areas with nice view” in analysis, wooden viewing decks are designed as viewing areas. In these decks, visual values of GOAM are presented. In the wooden viewing deck located at the north of museum entrance, handcrafts and souvenirs will be displayed and sold on the stands. Moreover, existing vehicular park at the east of museum entrance is arranged as resting area and open air tea house. Rock cut space at the south of the open area will be used as service space of tea house.

Despite the fact that Environmental Design Project for Göreme Open Air Museum is not fully implemented, several interventions are done in the museum by giving references to this project as stated in the article of Halis Yenipinar published in 2000.⁸⁴ These

⁸⁴ Yenipinar, H. (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. In Olşen, K., et al (Ed.), *Müze çalışmaları ve Kurtarma Kazıları Sempozyumu: 24 - 26 Nisan 2000, Denizli*. (p. 207). (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. Ankara: Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayını.

interventions are stone pavement of vehicular road in front of GOAM entrance, replacing the vehicular park to the north and construction of commercial units in vehicular park in 1997. Moreover, physical condition of museum trail is improved by covering the stairs and roads with hard tufa stone.

The other not implemented **Open Area Design Project** is prepared for the area between Elmalı Church and Karanlık Church. Open area design is composed of interconnected circular forms that sit on different levels. Function and use of this design is not mentioned. This project is presented to Nevşehir Council for Conservation of Natural and Cultural Entities in 02.06.2001 and approved.

Only implemented project is **“Electronic Entrance System and Entrance Toll Arrangement”** project (Figure 53). This project aims to propose a new electronic entrance system with tolls and a protective shelter over tolls. Project is presented to Nevşehir Council for Conservation of Natural and Cultural Entities in 14.07.2003 and approved. Electronic entrance system with tolls is implemented but wooden protective shelter with pitched roof is not implemented. Instead of wooden protective shelter which is presented to conservation council, protective shelter made of tarp is implemented. Protective shelter made of tarp is still used in museum.

b. Interventions to Museum Shop and Stairs

These implemented interventions are renovating of museum shop (Figure 53) and improvement of eroded stairs (Figure 54). Renovation of museum shop is presented to Nevşehir Regional Council for Conservation of Cultural Entities in 08.10.2009 and approved. In the content of renovation, interior of museum shop is changed and embedded open air resting area is designed in front of museum shop. Project for improvement eroded stairs by covering them with granite stone is presented to Nevşehir Regional Council for Conservation of Cultural Entities in 20.07.2010 and approved.

c. Removal of Buildings and Road Closure

There are three projects prepared for removals in GOAM: removal of souvenir shops at the entrance of Göreme Open Air Museum and closure of road between Göreme and Ortahisar to Vehicular Traffic and finally removal of the shelter adjacent to ticket booth. Souvenir shops at the entrance of GOAM is decided to be removed as indicated in the decisions of Nevşehir Council for Conservation of Natural and Cultural Entities in

13.02.2009 due to visual pollution it causes. Despite the council decision, the shop is not removed. Closure of vehicular road between Göreme and Ortahisar to Vehicular Traffic is proposed, because vibration created by vehicular traffic causes damages to rock blocks. While closure of road is approved by conservation council in 30.12.1998, the road is not closed to vehicular traffic (Figure 54). Final proposal is removal of the shelter adjacent to ticket booth because of visual pollution it creates at the entrance of GOAM (Figure 00). Removal of the shelter is approved by Nevşehir Council for Conservation of Natural and Cultural Entities in 12.07.2004 and the shelter is removed by giving reference to council decision.

Besides “Long Term Development Plan” and “Studies Approved by Council for Conservation of Natural and Cultural Entities”, there are other implemented projects that are not found in the archive from Nevşehir Council for Conservation of Natural and Cultural Entities but mentioned in the article of Halis Yenipinar⁸⁵ and observed in author’s site survey. One of these interventions are placing wooden doors and metal meshes to the openings of rock cut spaces that are not open to public (Figure 50). Another intervention is installing wooden decks inside rock cut spaces that are open to public in order to reduce deterioration on the ground and wall surfaces caused by the rapid visitation (Figure 49).

In spite all of these interventions in GOAM, problems regarding interpretation is not solved in the museum. Aside from solving the problem, accelerating number of visitors increased the visitor management problem and emergence of new technologies and tools in heritage interpretations made presentation program in GOAM insufficient.

⁸⁵ Yenipinar, H. (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. In Olşen, K., et al (Ed.), *Müze çalışmaları ve Kurtarma Kazıları Sempozyumu: 24 - 26 Nisan 2000, Denizli.* (p. 207). (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. Ankara: Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayını.



Figure 50 Wooden Doors and Metal Meshes Placed at the Opening of Rock Cut Spaces



Figure 49 Wooden Decks Inside Rock Cut Spaces

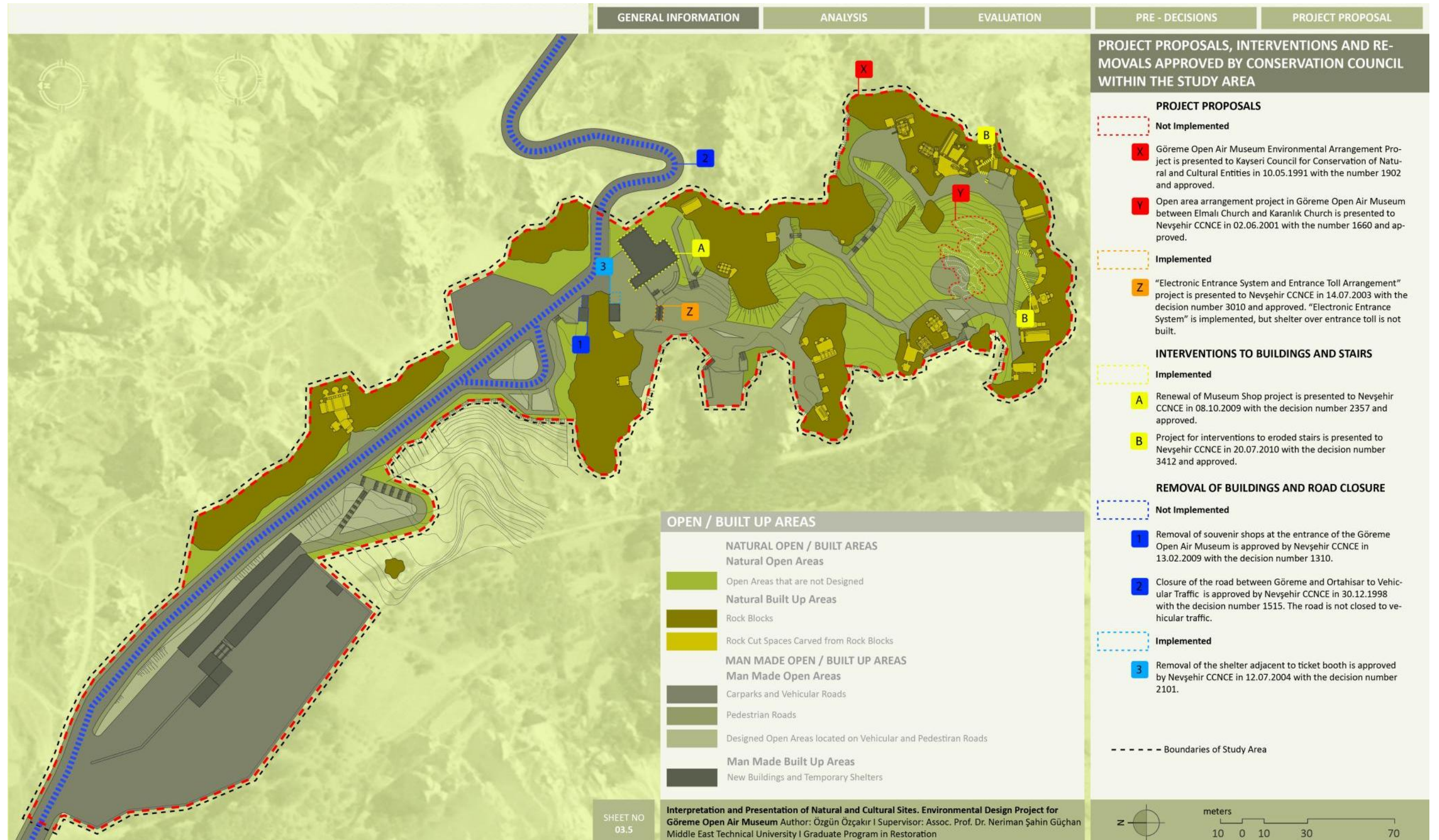


Figure 51 Project Proposals, Interventions and Removals Approved by Conservation Council Within the Study Area

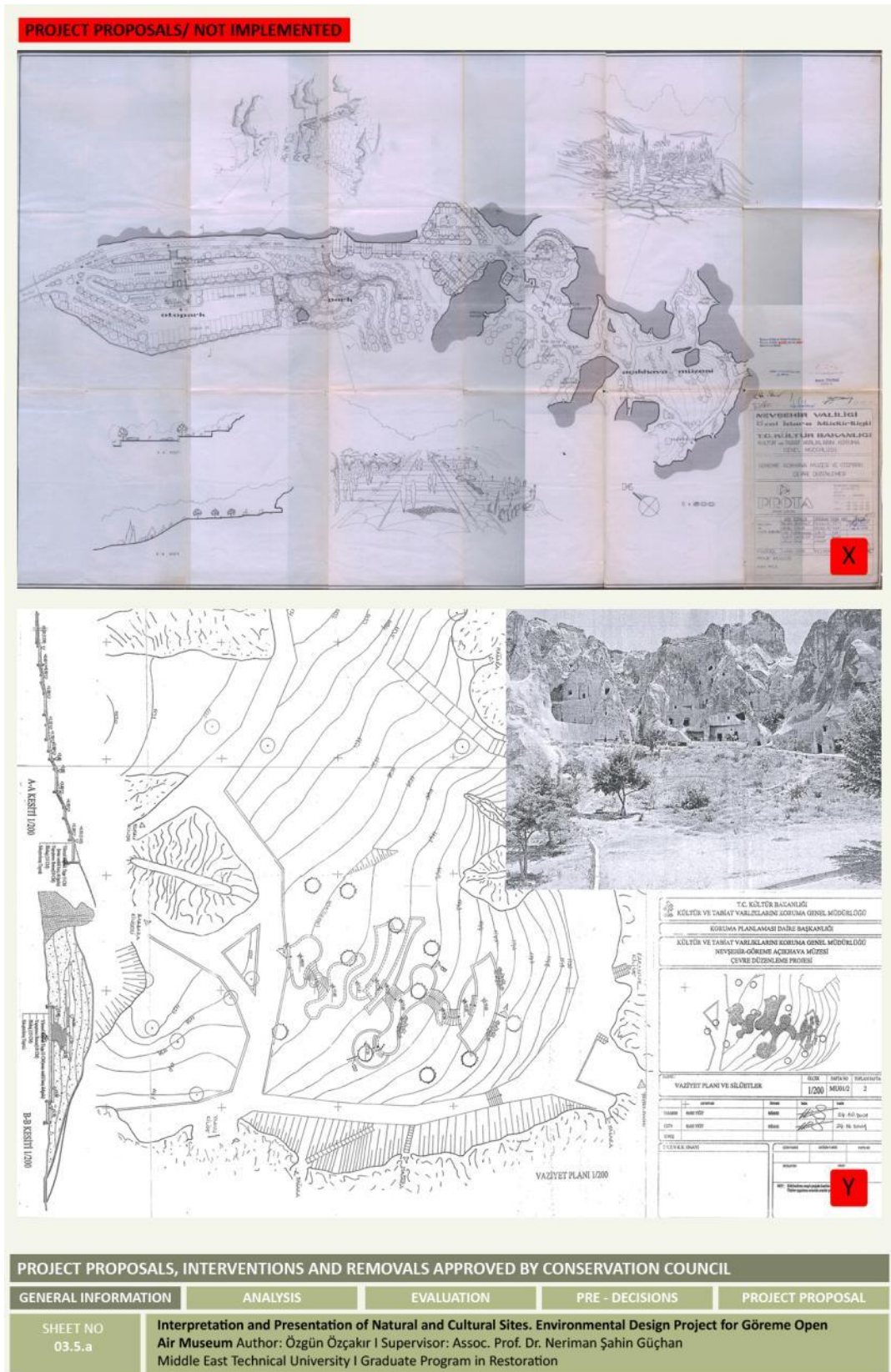


Figure 52 Project Proposals, Interventions and Removals Approved by Conservation Council
Within the Study Area - a

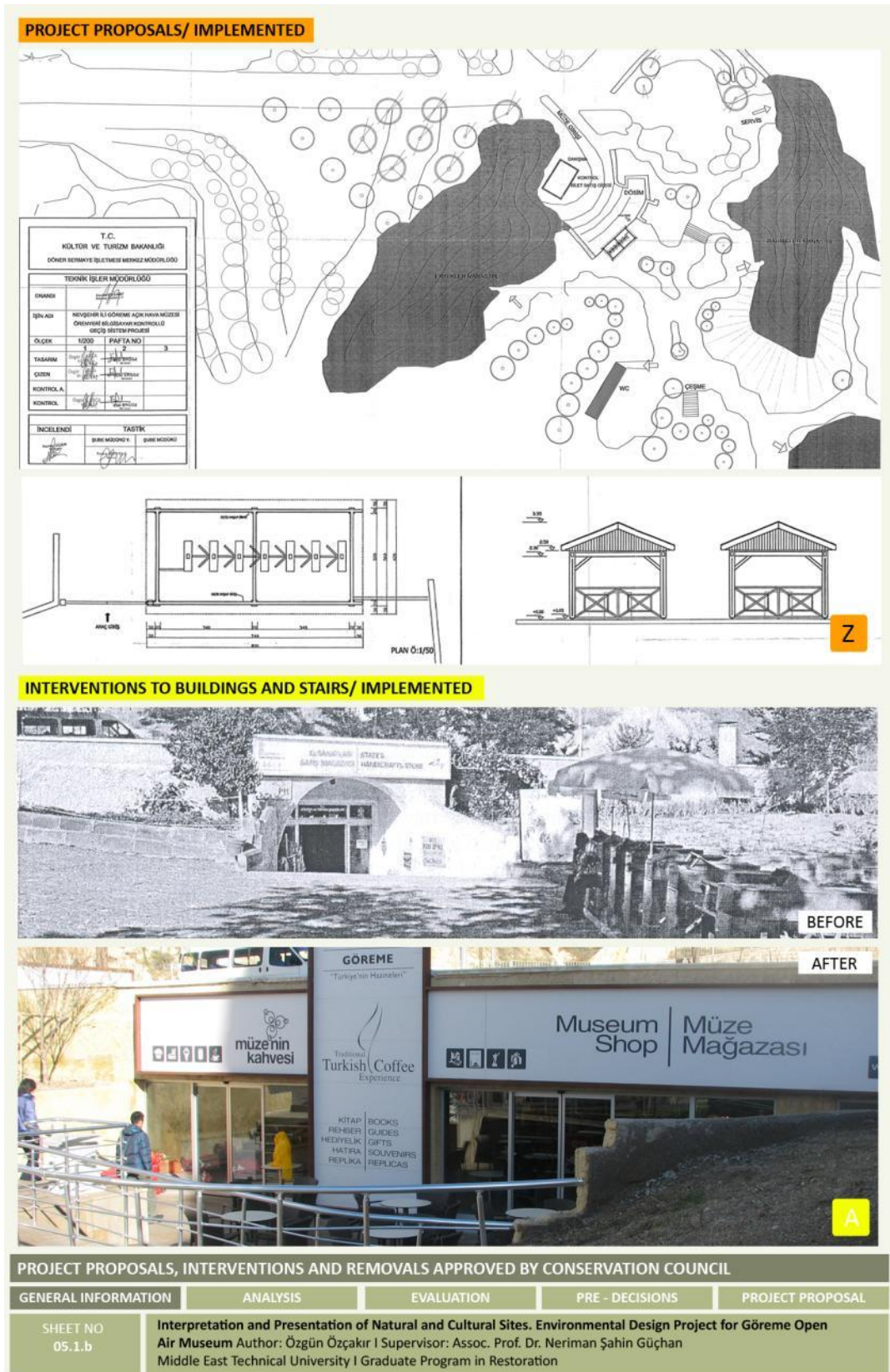


Figure 53 Project Proposals, Interventions and Removals Approved by Conservation Council
Within the Study Area - b

INTERVENTIONS TO BUILDINGS AND STAIRS/ IMPLEMENTED - cont.



BEFORE



AFTER



BEFORE



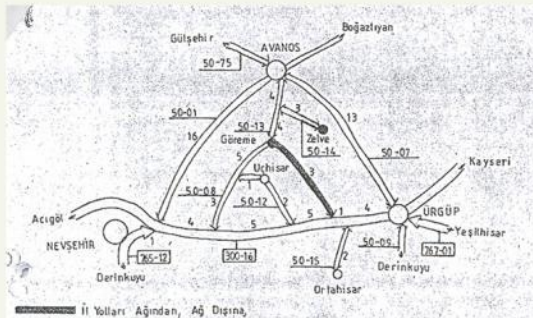
AFTER

B

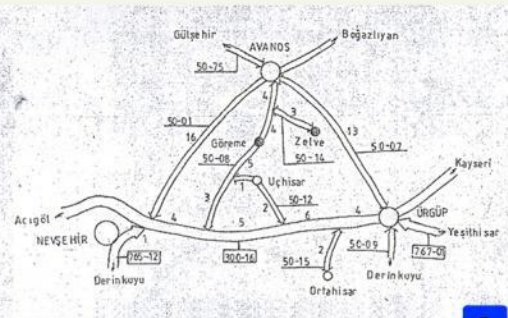
REMOVAL OF BUILDINGS AND ROAD CLOSURE/ NOT IMPLEMENTED



1



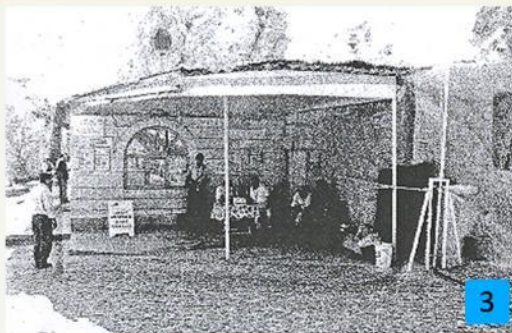
SCHEME OF PROPOSAL



SCHEME AFTER CLOSURE

2

REMOVAL OF BUILDINGS AND ROAD CLOSURE/ IMPLEMENTED



3

PROJECT PROPOSALS, INTERVENTIONS AND REMOVALS APPROVED BY CONSERVATION COUNCIL

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 05.1.c	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 54 Project Proposals, Interventions and Removals Approved by Conservation Council
Within the Study Area - c

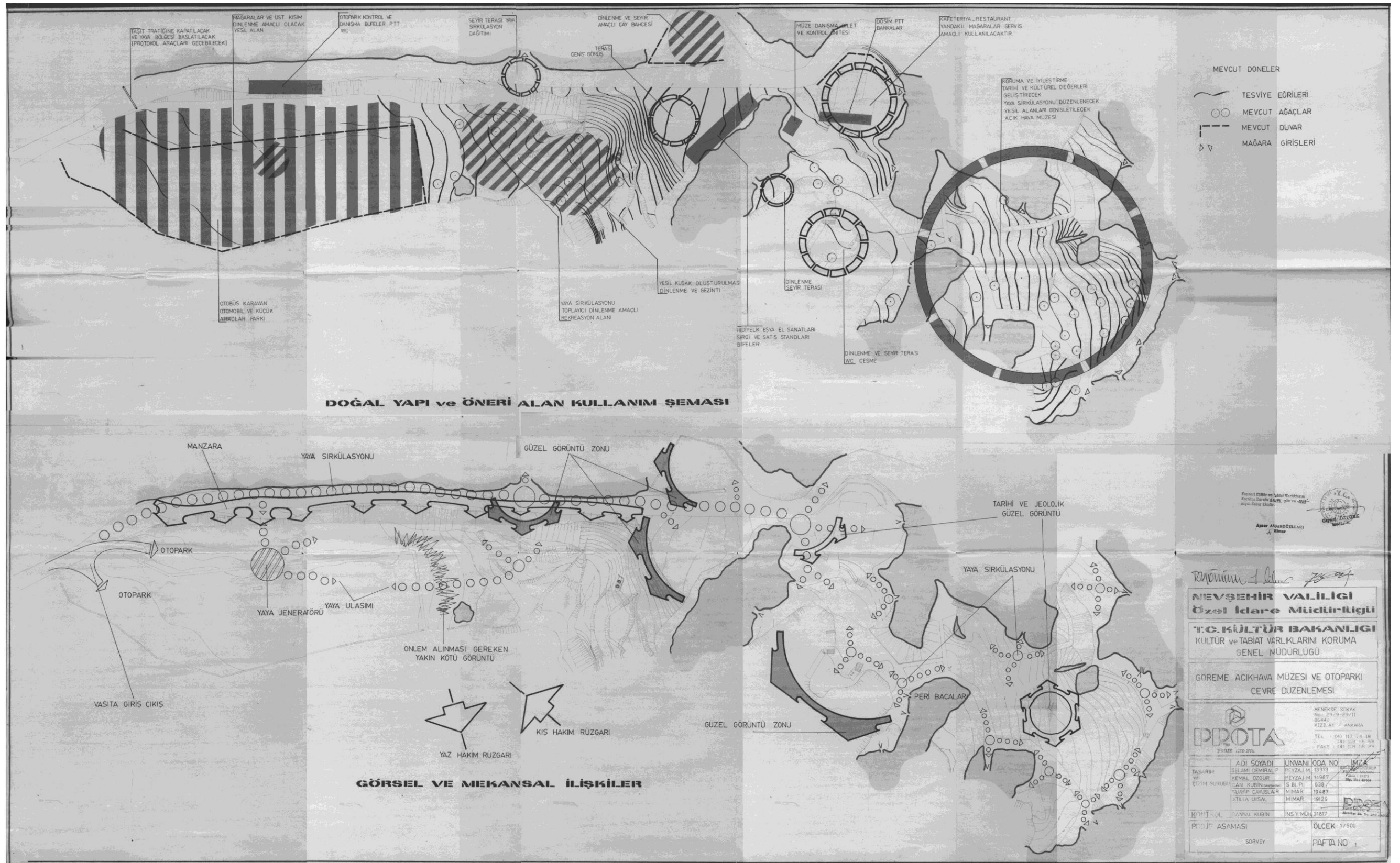


Figure 55 Analysis of GOAM prepared by PROTA in 1991. Source: Nevşehir Regional Conservation of Cultural Entities Archive

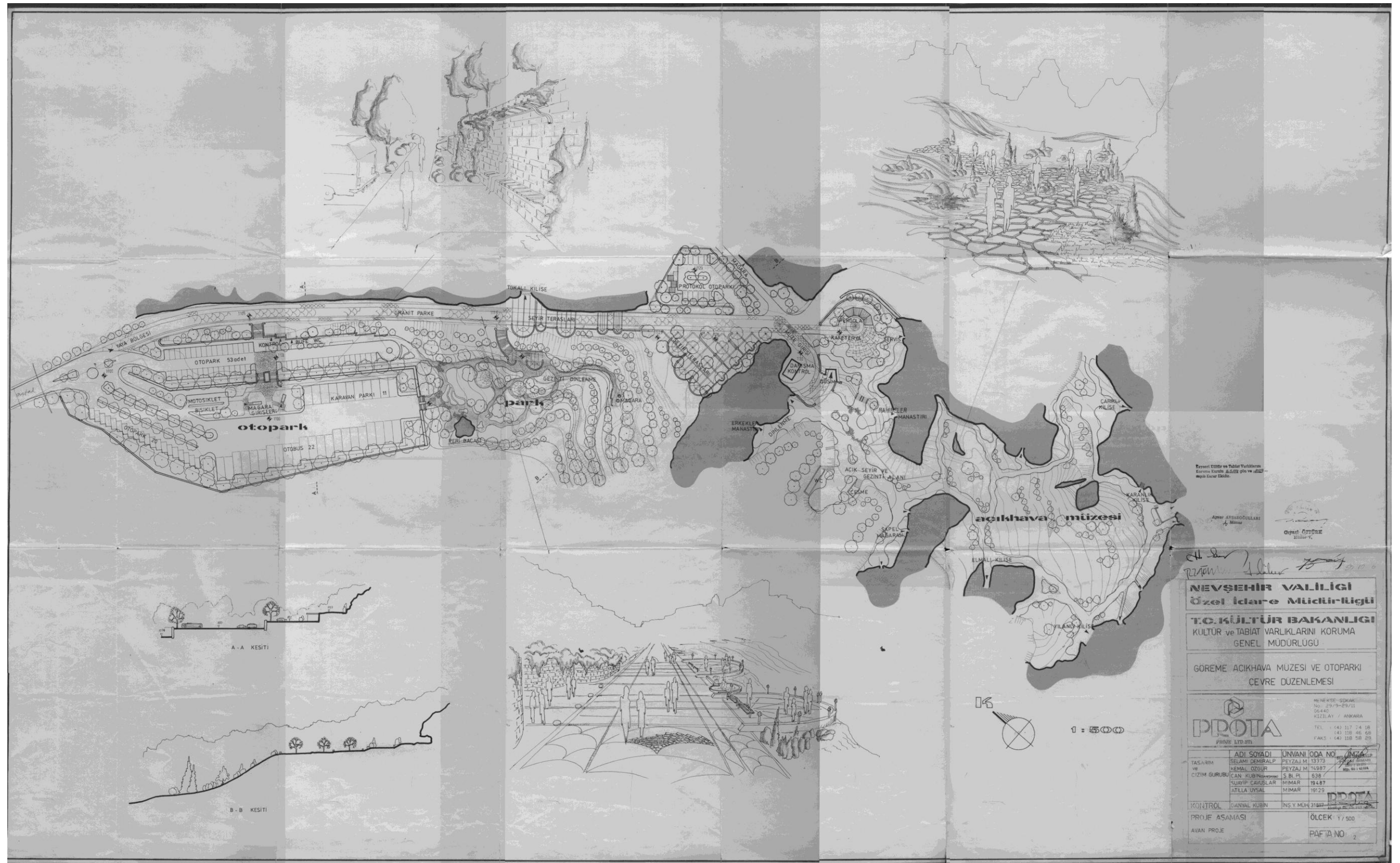


Figure 56 GOAM Environmental Design Project prepared by PROTAA in 1991. Source: Nevşehir Regional Conservation of Cultural Entities Archive

3.4. GENERAL CHARACTERISTICS OF GÖREME OPEN AIR MUSEUM (GOAM)

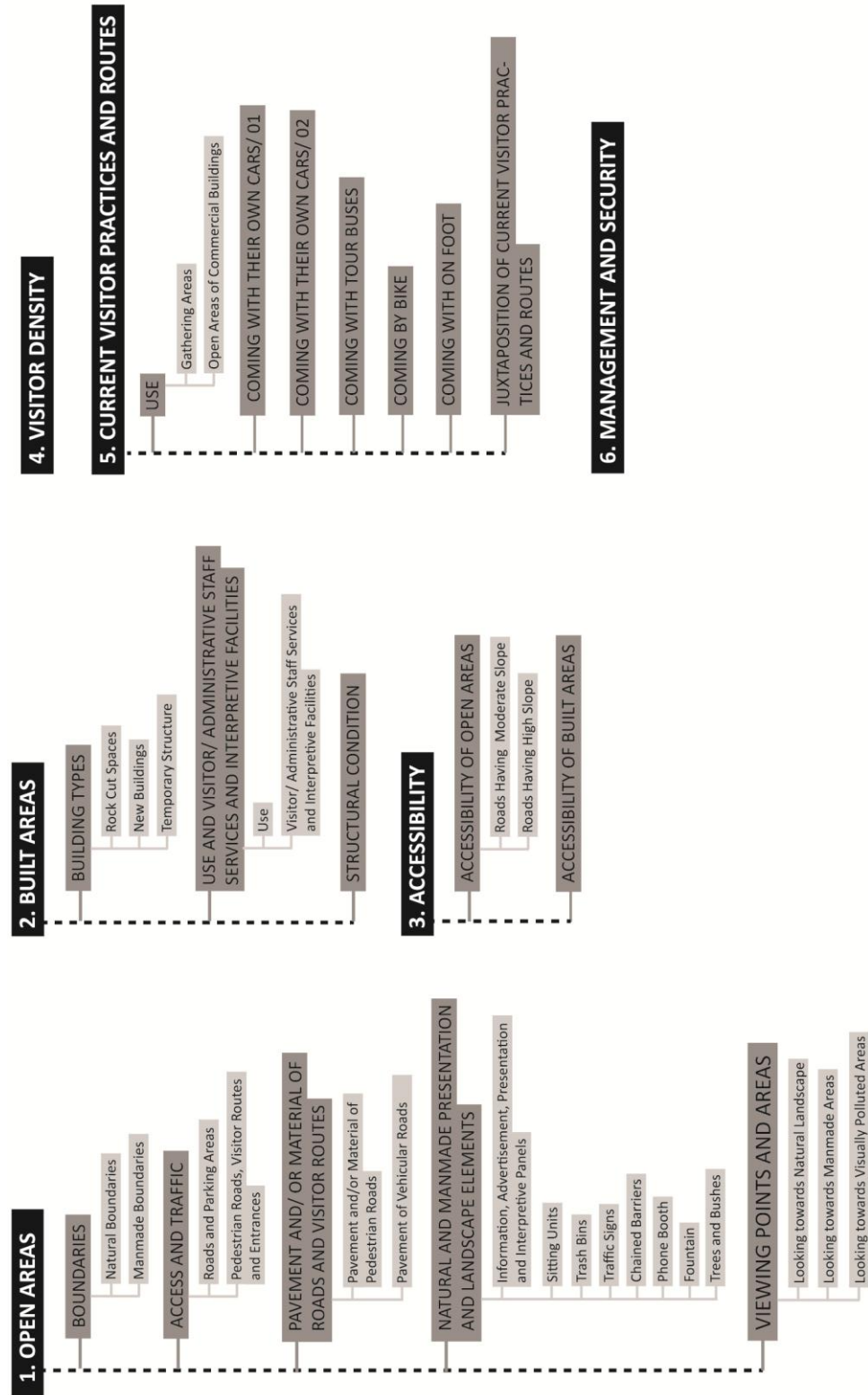
As defined in **Structure of the Thesis** of the **Introduction** chapter, in this part of the thesis, analyses regarding physical environment, services/ facilities/ amenities and management of GOAM done by the author are presented by giving references to analysis sheets prepared for this purpose so as to reveal general features of GOAM.

As can be seen in Table 14, current State of GOAM is analyzed under six titles methodologically: **Open Areas, Built Areas, Accessibility, Visitor Density, Current Visitor Uses, Practices and Routes, and Management, Security and Monitoring**. Then, these six analysis titles are further detailed with their subtitles and specific elements. The analysis is first conducted in two titles in order to understand physical environment of GOAM: “open areas” and “built areas”. Then, accessibility, density, visitor practices, and management and security in GOAM are analyzed. The reason behind this sequence in analysis is need for understanding physical environment of GOAM, before analyzing accessibility, visitor density, current visitor practices and routes, and management and security.

Each subtitle of analysis title is presented in a specific sheet in order to clarify and demonstrate correlation between these analyses with physical environment of GOAM. In these analysis sheets; codes, symbols, and labels are given to each element and they are used in order to indicate locations and type of these elements. Same codes, symbols, and labels are also used in the preparation of the text of this chapter. Besides analysis sheets, supplementary forms are used to illustrate the details of the analysis which include photographs of elements with their codes, symbols and labels. Thus, integration of analysis sheets and text with its legend is aimed. In that respect, reading this part of the thesis by considering analysis sheets and forms will make this part easier to understand.

In the following part of this section which defines methodology of the analysis, subtitles and elements of each analysis title are described in a hierarchal order by giving references to method of each analysis. Then, explanations and definitions of each element are also given under their specific titles.

Table 13 Titles of Analysis of Current State and Their Subtitles



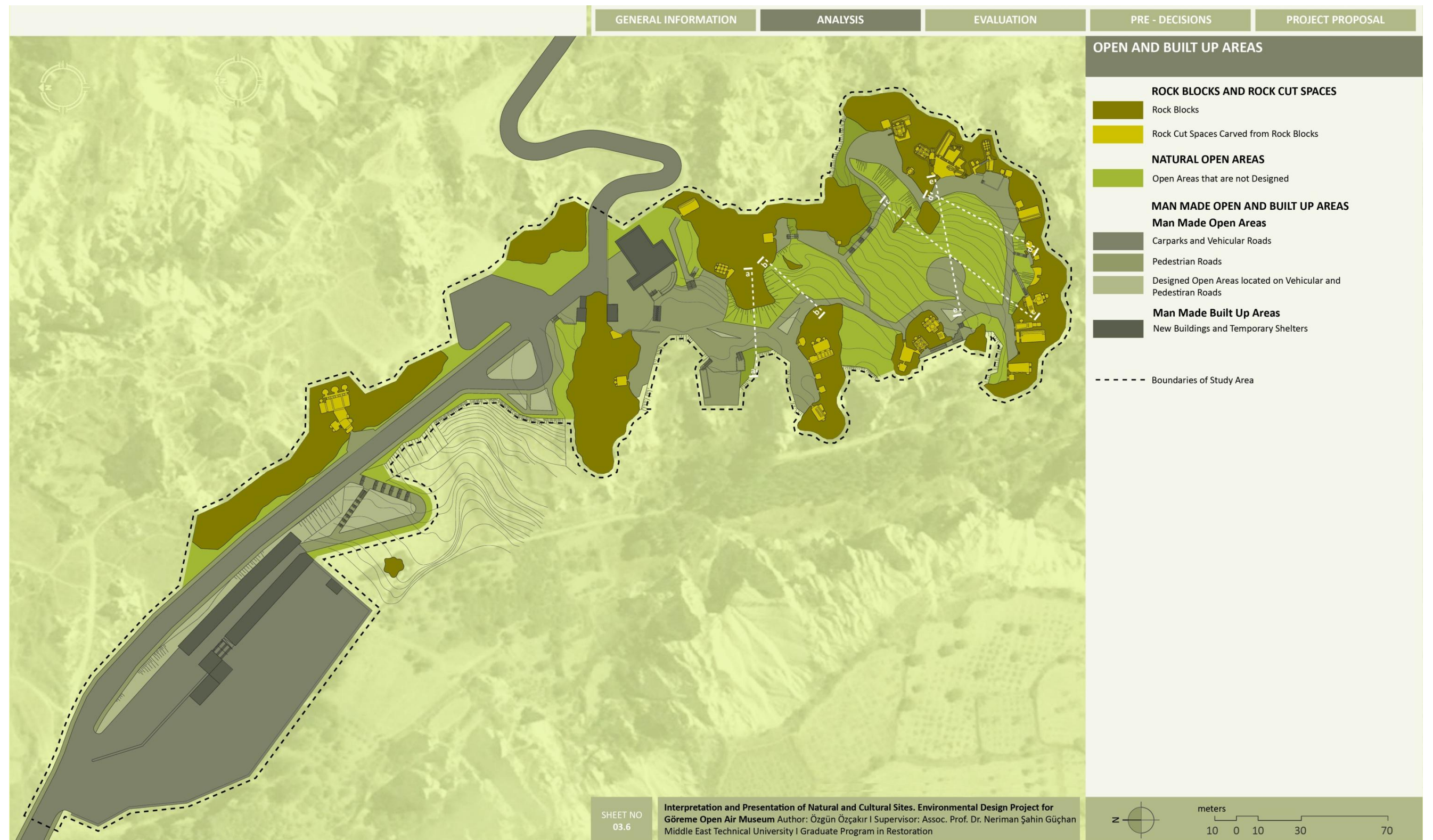


Figure 57 Open and Built Up Areas in GOAM



Figure 58 Section Perspectives of GOAM



Figure 59 Section Perspectives of GOAM

Method of Analysis on “Open Areas”

As the name suggests, the most important component of GOAM is open areas. In that respect, analyzing characteristics of open areas has crucial importance in order to understand current state of the museum. Thus, all the elements forming open areas in GOAM are grouped under five subtitles which are: **Boundaries; Roads and Traffic; Pavement and/or Material of Pedestrian Roads and Visitor Routes; Natural and Manmade Landscape and Presentation Elements** and **Viewing Points and Areas**. These subtitles and their elements is indicated in Table 14 and explained below with the reasons why these analyses are presented.

Analysis of Boundaries of GOAM is defined in order to understand natural and manmade borders, thresholds and edges of the site and elements forming them. Elements defining boundaries of GOAM are classified as “**Natural Boundaries**” and “**Manmade Boundaries**”. The former, natural boundaries are the ones defined by natural landscape elements as rock blocks and topography. The latter, manmade boundaries are defined by manmade elements as roads, designed terraces and chained barriers.

Analysis of Access and Traffic Flow in GOAM is prepared in order to understand vehicular and pedestrian approach to museum and their movement pattern inside the museum. Access and Traffic is analyzed in two groups: “**Roads and Parking Areas**” and “**Pedestrian Roads, Visitor Routes and Entrances**”. Regarding their specific features, roads and parking areas are divided into four elements as [VR] **Vehicular Road Between Göreme and Ortahisar**, [CP¹] and [CP²] **Parking Areas**. Three elements of pedestrian roads, visitor routes and entrances are [PR¹] and [PR²] **Pedestrian Roads** and [MT] **Museum Trail**.

Analysis of “Pavement and/ or Material of Roads and Visitor Routes” in Göreme Open Air Museum analysis is prepared in order to document various types of pavements and materials in the open areas of museum. These various pavements and materials are grouped two according to their types as pedestrian roads/ visitor routes and vehicular roads. Pavement and/ or material types of the pedestrian roads and visitor routes are composed of five groups as Large Size and Yellow Colored Cut Stone, Cut Stone, cobblestone, small size granite pavements, and metal stairs. Besides pedestrian roads and visitor routes, pavements of vehicular roads are composed of two types as asphalt and large size granite pavement.

Analysis of “Manmade and Natural Presentation and Landscape Elements” in GOAM is defined in order to document various types of landscape and presentation elements. These elements are analyzed under two groups: **Manmade Presentation and Landscape Elements** and **Natural Landscape Elements**. Then, the former is classified under seven groups as: **Information, Advertisement and Interpretive Panels, Sitting Units, Trash Bins, Chained Barriers, Traffic Signs, Phone Booth, and Fountain**. The latter elements are defined in three groups as **Deciduous Trees, Evergreen Trees** and **Bushes**.

Analysis of Viewing Points and Areas in GOAM is described in order to determine locations of areas looking towards the landscape with visual values or problems by giving references to author’s site survey. In GOAM, **Viewing Points and Areas** are classified into three in terms of the landscape, the viewing point and area looks to. These three types are defined as **viewing points and areas looking towards the landscape which do not have any manmade landscape elements; viewing points and areas looking towards landscape having manmade elements; and viewing areas looking towards visually polluted areas**.

Method of Analysis on “Built Areas”

As mentioned earlier, the analysis is first conducted in two titles – open areas and built areas – in order to understand physical environment of Göreme Open Air Museum. Analyses regarding the former – open areas – are mentioned above and methodology used in defining characteristics of the latter – built areas – is given below. All the elements of built areas in GOAM are grouped under six subtitles as: **Building Types, Use and Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities, and Structural Condition**.

Analysis of Building Types in GOAM is prepared in order to document various building types and mention general characteristics of these buildings. There are three types of buildings in GOAM: **Rock Cut Spaces** which consist of historic churches, refectories and depots, **New Buildings** which are mainly used for tourist purposes such as museum shop, ticket booth etc. and **Temporary Structure**. In order to mention general characteristics of various building types, various sources and the author’s observations during his site visit are used. In some cases, especially for rock cut spaces, there are not any sources and the spaces cannot be entered due to structural reasons. In that respect, there is not sufficient information for some of the rock cut spaces. In order to describe these spaces

having no access, base map which is produced by the author thru use of various sources are benefited.

In Göreme Open Air Museum, in order to satisfy needs of visitors, interpret the site to visitors and answer administrative requirements of the site, a number of services and facilities are presented. The analysis of *Use and Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities* in GOAM is done in order to understand how built areas are used and services/ facilities presented regarding these various use. In this context, use of built areas is analyzed under two groups: **“use of rock cut spaces”** and **“use of new buildings and temporary structures”**, then presented with their elements. Use of rock cut spaces are divided into four groups as: open to public and presented with interpretive facilities, open to public, in administrative use, and not used. Rock cut spaces which are “open to public and presented with interpretive facilities” are equipped with interpretive infrastructure and presented to museum visitors. Rock cut spaces which are “open to public and presented with interpretive facilities” can be visited by 30 visitors at one time and these visitors can stay maximum three minutes in the rock cut spaces due to museum directorate’s regulations. Rock cut spaces which are “open to public” are not equipped with interpretive facilities but open to museum visitors. Rock cut spaces which are in administrative use are used for administrative purposes in order to meet administrative requirements of the site. Use of new buildings and temporary structure is defined under six groups as: museum shop, ticket booth, WC, shelter over entrance toll, commercial use and no access.

After mapping various uses in GOAM, visitor/ administrative staff services and interpretive facilities are indicated regarding each uses except spaces and buildings with no access. These services and facilities are analyzed under three groups by giving references to types of uses: **visitor services**, **interpretive facilities** and **administrative staff services**. Visitor services in GOAM are “ticket counter”, “café and snack bar”, “ticket toll”, “souvenir shop” and “WC”. Interpretive facilities in GOAM are “information panels”, “audio guide” and “visitor decks inside rock cut spaces”. Administrative staff services are “guardhouse”, “refectory” and “office”.

Analysis of Structural Condition of rock cut spaces is prepared in order to document structural problems of these spaces. This analysis is conducted by giving references to author’s observation during his site visit. Structural condition of rock cut spaces are

analyzed under three titles ranging from rock cut spaces having most structural problems to not structural problems as **rock cut spaces having serious structural problems**, **rock cut spaces having moderate structural problems**, and **rock cut spaces having no structural problems**.

Method of Analysis on “Accessibility”

Accessibility in GOAM is analyzed in order to understand whether open and built up areas museum fulfill the requirements of accessibility or not (Figure 00). Accessibility in the museum is analyzed in two groups: **Accessibility of Open Areas** and **Accessibility of Built Areas**.

Open areas are divided into two subgroups regarding their slope: **open areas having moderate slope** and **open areas having high slope**. These two groups are then divided into subgroups whether wheelchair access is blocked because of the stairs and height differences or not. Besides open areas, accessibility of built areas is analyzed in five groups. These groups are put in an order from most difficult access to easiest access as “spaces accessed via high and steep stairs”, “spaces accessed via stairs”, “spaces with level differences at the entrance”, “spaces with wheelchair access”. No access due to not allowing entrance to rock cut spaces by several reasons is also indicated in the analysis.

Method of Analysis on “Visitor Density”

Visitor density analysis is prepared in order to indicate areas and buildings with more or less dense use by visitors in the boundaries of GOAM by giving references to author’s observations during his site survey. Mapping of visitor density analysis is prepared by dotting the dense areas by giving references to observations during site visit. Areas which are used densely by visitors have more dots comparing to areas less dense. Built areas with administrative use and not used are not applicable for this analysis due to their limited and no access.

Method of Analysis on “Current Visitor Uses, Practices and Routes”

Current visitor practices and routes analysis is prepared in order to understand visitors’ various uses in the museum, approach to museum and practices inside the museum (Figure 00). At first “*Current Visitor Uses*” in GOAM is analyzed in order to understand visitor practices and their uses in the open areas of the museum. In GOAM, open areas

are divided into three group regarding their use by museum visitors and codes are given to each area concerning their uses as **Gathering Areas [G^x]**, **Open Areas of Commercial Buildings [O^x]** and **Resting Areas [R^x]**.

After that, “*Current Visitor Practices and Routes*” in GOAM are analyzed by giving references to their uses in GOAM. Then each practice is grouped under three titles: **before the museum visit, during the museum visit** and **after the museum visit**.

There are five types of visitors practices and routes regarding different modes of transportation that visitors use while approaching museum: **visitors coming with their own cars** – there is two different practices in this type regarding where they park their car - , **visitors coming with tour buses**, **visitors coming on foot** and **visitors coming by bike**. These five practices and roads are mapped and presented separately in “Current Visitor Practices and Routes” sheets. Besides these five analysis sheets, practices and routes that visitors experience are written through mentioning the durations and lengths of practices and routes by giving references to sequence numbers indicated in analysis sheets.

Method of Analysis on “Juxtaposition of Visitor Practices and Routes”

Five practices and routes mentioned above are juxtaposed in order to indicate similarities/ differences between them and show complex vehicular and pedestrian pattern emerged when the all practices and routes overlap together.

Method of Analysis on “Management, Security and Monitoring”

Management and Security of Göreme Open Air Museum is analyzed in order to understand administrative structure of museum and security measures taken in museum by giving references to interview with church guides and officer in the museum. Moreover, lack of monitoring activities in GOAM is mentioned.

In the following part of the thesis, characteristics of GOAM are explained and defined in detail by giving references to specific titles and elements of each analysis which is prepared according to the methodology introduced above.

3.4.1. CHARACTERISTICS OF OPEN AREAS

As the name suggests, Göreme Open Air Museum is mainly an “open area”. In that

respect, analyzing open areas of GOAM is importance in order to understand the museum comprehensively.

Boundaries of GOAM

The main feature of open areas of GOAM is the physical boundaries that define the limits and edges of museum. Physical boundaries of GOAM are determined as natural and manmade boundaries. The elements that define natural boundaries as rock blocks and valleys are unsurprisingly more dominant comparing to elements of manmade boundaries which are edges of roads, manmade terraces and chained barriers (Figure 60).

Göreme Open Air Museum is defined by natural boundaries at east, south and west; and manmade boundaries at northeast. GOAM is defined by continuous rock blocks having different heights up to 30 meters at east, south and northeast. Southwest of GOAM is defined by Göreme valley having approximately 15 meters depth. Edges of vehicular park at the north and vehicular road passes through GOAM define northwestern boundaries of museum. Besides boundaries that define outward bounds of the museum, there are also chained barriers and terraces in GOAM. Chained barriers are located in front of Erkekler Monastery in order to warn visitors about danger of falling rock pieces from rock blocks and not to exceed the barriers for their safety. Another chained barrier is located at the edges of deep valley in order to warn visitors about height differences.

Roads and Traffic in GOAM

Roads provide vehicular and pedestrian approach to GOAM, vehicular and pedestrian circulation in GOAM and finally museum experience for visitors via museum trail. Besides vehicular and pedestrian roads, parking areas are documented in this analysis (Figure 62).

There are one vehicular road **[VR]** providing access to GOAM and two vehicular parks, **[CP¹]** and **[CP²]**. The former is for personal cars, minibuses and buses and the latter is for personal cars and minibuses. **[VR]** Vehicular Road between Göreme and Ortahisar extends in northwest – southeast direction and 3 kilometers long and 8 meters wide. GOAM is 1,3 kilometers away from Göreme. While **[VR]** has not that much curved in general, there is one and only sharp turn which is ascending through Ortahisar just after the entrance of GOAM. On **[VR]** road from Göreme to **[CP¹]**, there is not slope despite

several rugs on the road. Slope of the road starts to ascend between [CP¹] and the entrance of GOAM. After the entrance of GOAM, the slope continues to ascend to the end of [VR]. Besides vehicular road, there are two parking areas in GOAM: [CP¹] and [CP²]. [CP¹] is located on the south of [VR] and at the north of GOAM. Vehicular entrance to [CP¹] is from northeast. [CP¹] is 60 meters wide, 150 meters long and covers 6750 m² area. [CP¹] is used for parking of personal cars, minibuses and tour buses. [CP¹] has two platforms and there is vehicular access to both of these platforms from [VR]. Height difference between these two platforms is two meters. On the upper platform, there are commercial units and parking areas for personal cars. Commercial units are located at the southeast of upper platform. There are trees and bushes between upper and lower terrace and edges of [CP¹] Vehicular Park. [CP²] is located on [VR] and at the east of GOAM entrance. Despite [CP¹], [CP²] is much closer to museum entrance. Vehicular entrance to [CP²] is from north. [CP²] is 20 meters wide, 35 meters long and covers 800 m² area. [CP²] is used for parking of personal cars and minibuses. There are trees and bushes between [VR] vehicular road and [CP²].

There are two pedestrian roads – [PR¹] and [PR²] – and a museum trail [MT] in GOAM. [PR¹] pedestrian road connects [CP¹] vehicular park to [PR²] pedestrian road and [VR]. Length of [PR¹] is 180 meters and it is 4,5 meters wide. There are steep stairs on [PR¹] through the end of [PR¹]. [PR²] pedestrian road is a sidewalk adjacent to [VR]. This pedestrian road leads visitors to entrance of GOAM and museum trail [MT]. Length of [PR²] is 375 meters in the boundaries of study area and it is 2 meters wide. Museum trail [MT] is a pedestrian road that makes loop passing tangent through rock blocks. Visitors visit rock cut spaces by walking on this loop. [MT] is 500 meters long. Width of the museum trail ranges from 3 meters to 5 meters. [MT] goes in west – east direction starting from the entrance of museum to Yılanlı Church. The road is curved but slope of the [MT] does not change much in this direction. Then, [MT] ascends in south – north direction through south and reaches its highest point in front of Karanlık Church. After that, [MT] turns to north direction and reaches Çarıklı Church. [MT] descends starting in west – east direction after Çarıklı Church. Museum trail is equipped with manmade and natural landscape elements such as interpretive panels, trash bins and trees.

Pavement and/ or Material of Roads and Visitor Routes in GOAM

There are various types of pavements and/or material ranging from cobblestone to metal

of roads and visitor roads used in GOAM (Figure 64). **Large Size and Yellow Colored Cut Stone Pavement** is used in front of Karanlık Church, on the terrace in front of rock cut depots and refectories, in the circular open area arrangement at the north of Saint Barbara Church, and in the rock cut space without a ceiling located at the north of Elmalı Church. **Cut Stone Pavements** are used in the stairs ascending through Rock Cut Spaces except Çarıklı Church, in front of ticket booth, in the open area of museum shop, in the stairs located on the northern part of [MT] after visiting Çarıklı Church, stairs climbing from Elmalı Church to Saint Barbara Church and in the open areas of commercial units located in [CP¹]. **Cooblestones** are used only in [PR²]. **Small Size Granite Pavements** are used in [MT] and stairs of [PR¹]. Finally, **Metal Stairs** are used in the stairs ascending through Çarıklı Church. In the second group, two types of materials are used: **Asphalt** and **Large Size Granite Pavement**. Asphalt is used in [VR]. Asphalt pavement finishes just before the entrance of Tokalı Church and **Large Size Granite Pavement** starts in [VR]. **Large Size Granite Pavements** are used in [CP¹] and [CP²] vehicular parks.

As stated above, there are various types of pavements and materials used throughout the museum route. While each of these materials has their specific values and problems on their own, the non-complementary approach in pavement design is problematic.

Manmade and Natural Presentation and Landscape Elements in GOAM

Various presentation and landscape elements are placed in GOAM in order to direct visitors in museum, interpret the significance of museum to visitors, and make visitors' visit in GOAM more comfortable in harsh climatic conditions. These elements are analyzed in two groups as manmade and natural and described in detail below (Figure 66).

There are various types of **Manmade Landscape and Presentation Elements** such as information panels, sitting units, and trash bins in GOAM in large numbers. Their design, material, location and usage of these elements should be analyzed accurately due to their physical proximity to values of GOAM.

Information, Advertisement and Interpretive Panels

As mentioned before, there are six types of Information, Advertisement and Interpretive Panels used in Göreme Open Air Museum. These are [P^{WH}] **Panels Regarding Göreme Open Air Museum's World Heritage Status**, [P^{MS}] **Panels that are placed by Museum**

Shop, [P^{MD}] Panels that are placed by Museum Directorate to warn and inform visitors, **[P^{IP}]** Interpretive Panels, **[P^{AG}]** Panels for Audio Guides, and **[P^{AP}]** Advertisement Panels and Panels for Vehicular Park Fees. These panels show variety in terms of their design, sizes, materials and variety in exemplified by giving references to panels below. Each of panels are divided into groups in terms of being free standing, screwed on the façade or hanged on chained barriers (Figure 67).

[P^{WH}] is placed in Göreme Open Air Museum as a result of '*Regulation Concerning Entrance to Historic Sites and Information and Instruction Panels*'⁸⁶ which is published by Ministry of Culture and Tourism in 2007. The design of this panel is defined in the regulation with illustrations and decided to be placed on each and every World Heritage Site in Turkey (Figure 67). **[P^{WH}]** is located at the paid entrance of GOAM. Panel is 1,8 meters long and 1,2 meters wide. This beige colored panel which is made of marble stands on brown foot pipe and this brown foot pipe wraps around the information panel. Moreover, world heritage logo made of plexy is located at the top of the panel.

[P^{MS}] are located by the museum shop in order to give information about facilities in museum shop. These panels are made of white colored steel sheets and brown frame is wrapped around the four sides of panels. The texts and figures on the panels written in black. These panels are placed on the southwest and northwest façade of museum shop and located at the southeast of museum shop. **[P^{MS}]** are comparatively bigger than the other panels in GOAM and takes visitor's attention easily in that respect (Figure 67).

[P^{MD}] are located by museum directorate to warn visitors about not entering rock cut spaces and getting near to rock blocks and some of rock cut spaces due to the structural problems. Moreover, these panels are placed in order to inform visitor about pricing of Karanlık Church. **[P^{MD}]** are located in front of Rahibeler Monastery and Karanlık Church. These panels show variety in size, material and design and comparatively smaller than the other panels in GOAM (Figure 67). For example, while panels that warn visitors about potential dangers are made of white colored metal sheets and hanged on chained barriers, panels that give information about price of entering Karanlık Church is made of red colored plastic and fixed to steel foot pipe. The former approximately 30 cm long and

⁸⁶ This legislation is called as "Müze ve Ören Yerleri Giriş, Bilgilendirme ve Yönlendirme Tabelalarına İlişkin Yönerge" in Turkish.

50 cm wide and the latter is 15 cm long 30 cm wide. Such variety in size, material and design create visual pollution in GOAM.

[P^{IP}] are located in order to give information to visitor about GOAM and rock cut spaces – especially rock cut churches – . These panels give information to visitors about general characteristics of GOAM and architectural features of rock cut spaces in Turkish, English, German and French. Panel giving information about general features of museum – which has approximately 60 cm height and 90 cm width – is located at the beginning of the museum trail [MT]. The other panels – which have approximately 40 cm height and 60 cm width – are located at the entrances of rock cut spaces. Besides their location, there are two types of [P^{IP}] in terms of their being free standing or being on the façade. First type is free standing, on the other words, fixed on the ground by the help of foot pipe; second type is screwed on the façade. First type of [P^{IP}] is composed of steel panels and steel foot pipe. Steel panel is fixed to steel foot pipe and steel foot pipe is montaged to ground. By the help of foot pipe, the interpretive panel is placed on the eye level of visitor. Montage detail of steel foot pipes to ground is not designed, so that some of the steel foot pipes do not stand straight (Figure 67).

[P^{AG}] are located in order to indicate numbers of the voiced articles of Audio Guide which can be lend from the ticket booth. These panels are hanged on chained barriers or screwed on the façade of rock blocks with metal nails (Figure 68). Panels – having approximately 10 cm length and 20 cm width – are made of plexy and colored with white. There are blue numbers indicating voiced articles of Audio Guide and black signs indicating prohibition of taking photo. Moreover, maximum time for church visit is specified on [P^{AG}].

[P^{AP}] are advertisement panels and panels for vehicular park fees (Figure 68). These panels show variety in size, material and design. These panels are located outside the paid entrance of GOAM and on the [VR]. [P^{AP}] are not located in regular manner.

Sitting Units/ Decks

Movable and immovable **Sitting Units/ Decks** are placed in GOAM. While immovable sitting decks made of wood are designed as a part of the landscape, movable sitting units which are generic/ standard wooden chairs and wooden park benches placed in an disordered fashion (Figure 68). [SU^M] **Movable Sitting Units for Multiple Users** are

generic designed park benches with tables integrated to sitting units and they are placed without any order. **[SU^M]** are located on the shaded areas of **[R²]**, **[R³]** Resting Areas and **[G⁵]** Gathering Area and used for resting and having snacks. **[SU^C]** **Chairs** are wooden chairs located for church guides near the entrance of rock cut spaces. Chairs are not produced with durable wooden materials that resist outdoor conditions, so they are damaged. **[SU^R]** **Immovable Row Sitting Decks for Multiple Users** are wooden decks which are designed as a part of the landscape. **[SU^R]** are located in **[R³]** and **[G⁷]**. In **[R³]**, wooden sitting decks are placed above the circularly arranged stone wall. Besides **[R³]**, wooden sitting decks are placed above the linear stone wall near the entrance of Çarıklı Church in **[G⁷]**.

Trash Bins

There are two types of *Trash Bins* in GOAM: **[TB^S]** **Small Size Trash Bins** and **[TB^L]** **Large Size Trash Bins** (Figure 69). **[TB^S]** are made of terracotta and having approximately 50 cm height and 40 cm width. **[TB^S]** are located on the **[MT]** **Museum Trail** and not located in an ordered fashion. In addition to **[TB^S]**, **[TB^L]** are made of unpainted metal and having approximately one meter height and one and half meters width. There are three **[TB^L]** which are located outside the museum's paid entrance and near to **[G²]**.

Chained Barriers [CB] are used in order not to allow visitors getting near to rock blocks and enter rock cut spaces due to their structural problems (Figure 69). They are made of beige colored steel pipes and chains in one cm thickness. Steel pipes are fixed on the ground and chains are montaged to steel pipes. Montage detail of steel pipes to ground is not designed, so that some of the steel pipes do not stand straight.

Traffic Signs Located by General Directorate of Highways [TS] are generic/ standard traffic signs which are made of metal sheets in various colors (Figure 69). These signs are placed to indicate directions to surrounding towns and cities, parking and no parking areas. These signs are placed on the **[VR]**, mostly in front of the paid entrance of GOAM. **[TS]** create visual pollution and they are problematic in that respect.

There is only one **Phone Booth [PB]** in GOAM (Figure 69). **[PB]** is generic/ standard designed and blue colored phone booth which is located on **[G²]**.

Fountain [F] is located on museum trail (Figure 69). There are stairs leading down the fountain from the **[MT]**. **[F]** is not clearly observed from the museum trail.

Natural Landscape Elements

While Göreme Open Air Museum is not rich in terms of vegetation, there are **deciduous trees**, **evergreen trees** and **bushes** (Figure 69). While, trees and bushes are located in a scattered manner in open air museum; evergreen trees are located in the undesigned green areas at the west of **[CP²]** Vehicular Park and at the east of **[R¹]**. Besides evergreen trees, deciduous trees are located at the north of **[R²]**, at **[R⁴]** and at undesigned green area between **[R³]** and **[G⁶]**. These natural landscape elements are important due to creating shaded areas in museum. Visitors prefer to use sitting units and wait in the shaded areas inside GOAM. In that respect, trees are mostly located in the resting areas of visitors in GOAM. Locations of these natural elements are shown in Open Areas: Natural and Manmade Landscape and Presentation Elements sheet (Figure 66).

Viewing Points and Areas in GOAM

Viewing Points and Areas in GOAM are defined as areas where visual values and problems are seen well. In Göreme Open Air Museum, all the points and areas look through visually valuable areas while some of them look through visually polluted areas. Besides their visual values, some viewing point and areas look through the areas that represent the natural and cultural features of GOAM best. In the contrary to their visual values, some viewing points and areas look through the visually polluted areas. In that respect, viewing points and areas is analyzed under three groups by giving references to their visual values and problems (Figure 70).

The first type of viewing points and areas is **[WP^L]**, the ones looking towards the landscape which do not have any manmade landscape elements. In that respect, these areas look through natural environment (Figure 71). There areas are located at the south of Göreme Open Air Museum, densely in front of Karanlık and Çarıklı Church.

The second type is **[WP^M]**, the ones looking towards landscape having manmade elements such as vehicular parks and new buildings (Figure 73). In that respect, there are visual obstacles in these areas that prevent looking through natural environment. These areas are located at the south of Tokalı Church on **[VR]**, in **[R¹]**, at the west of **[R²]**, and at the east of Saint Basil Chapel.

The last type of viewing points and areas is **[WP^P]**, the ones looking towards visually polluted areas (Figure 73). There are dense visual obstacles such as traffic signs and

advertisement panels in various sizes and colors in these areas that prevent looking through natural environment. These areas are located densely at the paid entrance of GOAM and at the entrance of **[CP¹]** due to having many traffic signs and advertisement panels.

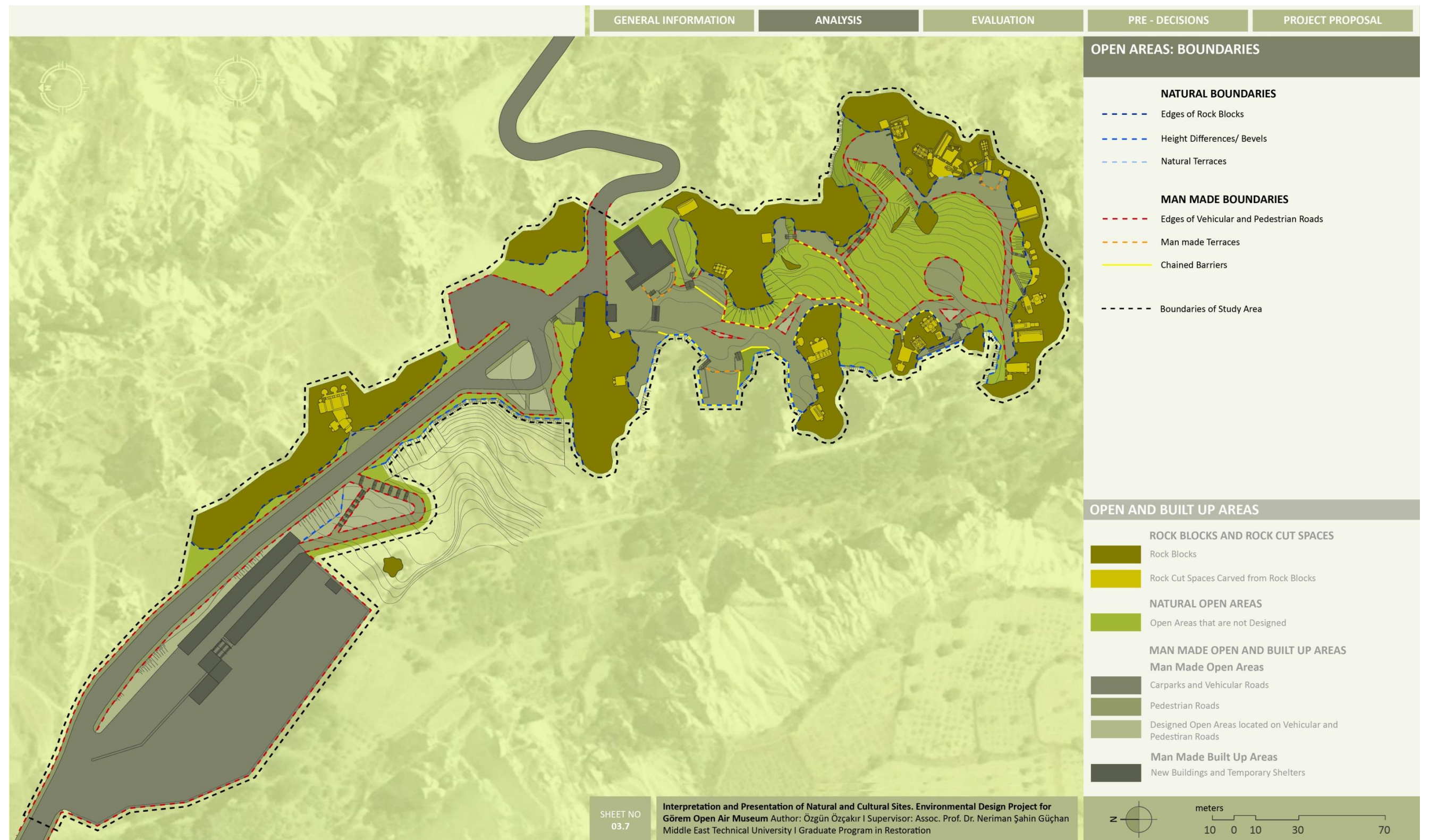


Figure 60 Open Areas: Boundaries

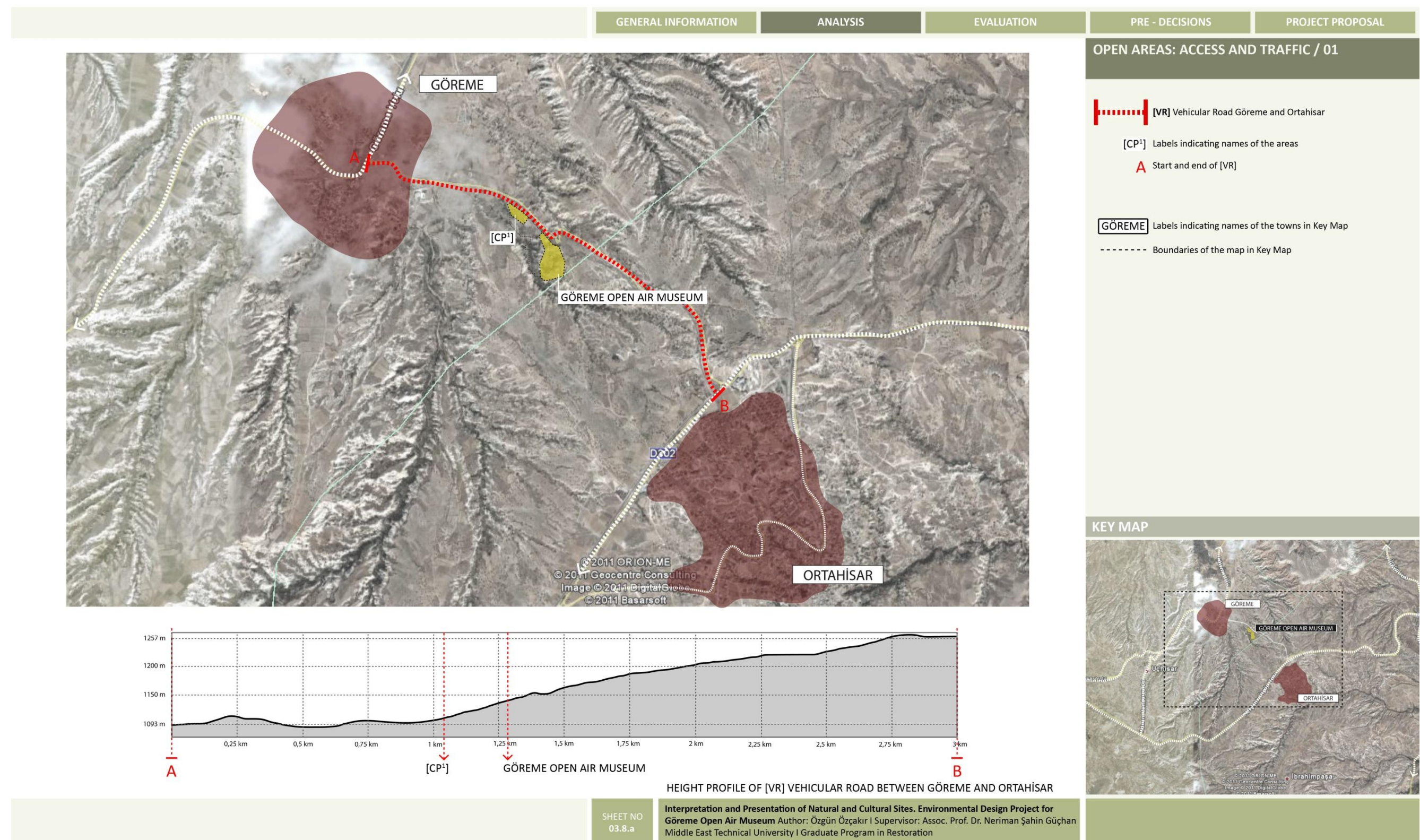
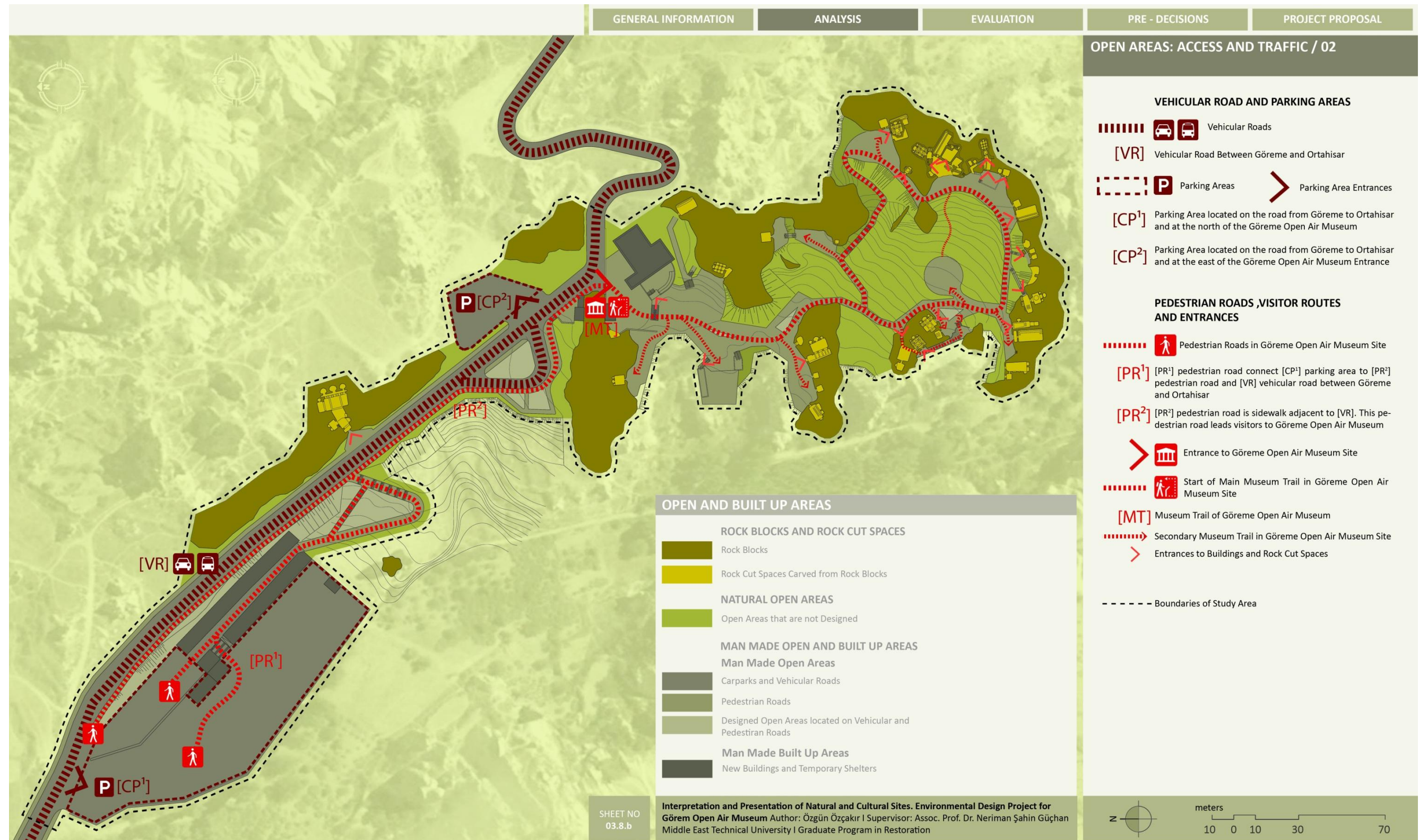


Figure 61 Open Areas: Roads and Traffic / 01



SHEET NO 03.8.b

Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Görem Open Air Museum Author: Özgün Özçakır | Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University | Graduate Program in Restoration

Figure 62 Open Areas: Roads and Traffic / 02

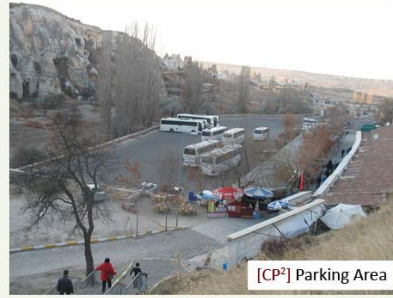
VEHICULAR ROAD AND CARPARKS



■■■■■■ [CP¹] Vehicular Road between Göreme to Ortahisar



[CP¹] Parking Area



[CP²] Parking Area

PEDESTRIAN ROADS, VISITOR ROUTES AND ENTRANCES



[PR¹] Pedestrian Road



[PR²] Pedestrian Road



■■■■■■ [MT] Vehicular Road between Göreme to Ortahisar

OPEN AREAS: ACCESS AND TRAFFIC

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.8.c	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 63 Photographs of “Roads and Traffic”’s Elements

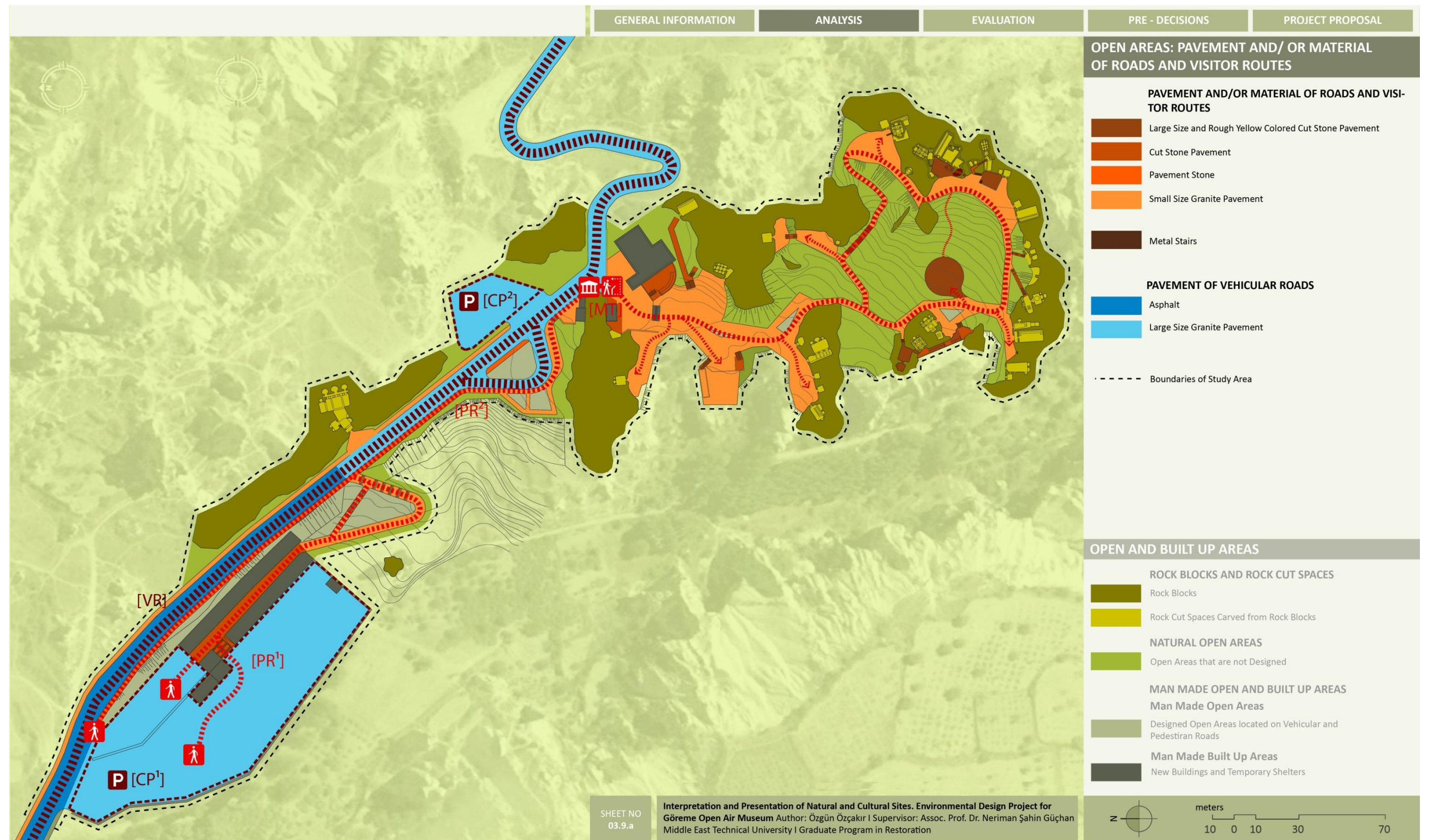


Figure 64 Open Areas: Pavement and/or Material of Roads and Visitor Routes

PAVEMENT AND/OR MATERIAL OF PEDESTRIAN ROADS AND VISITOR ROUTES



PAVEMENTS OF VEHICULAR ROADS



OPEN AREAS: PAVEMENT AND/ OR MATERIAL OF ROADS AND VISITOR ROUTES

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.9.b	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 65 Photographs of Pavement and Materials

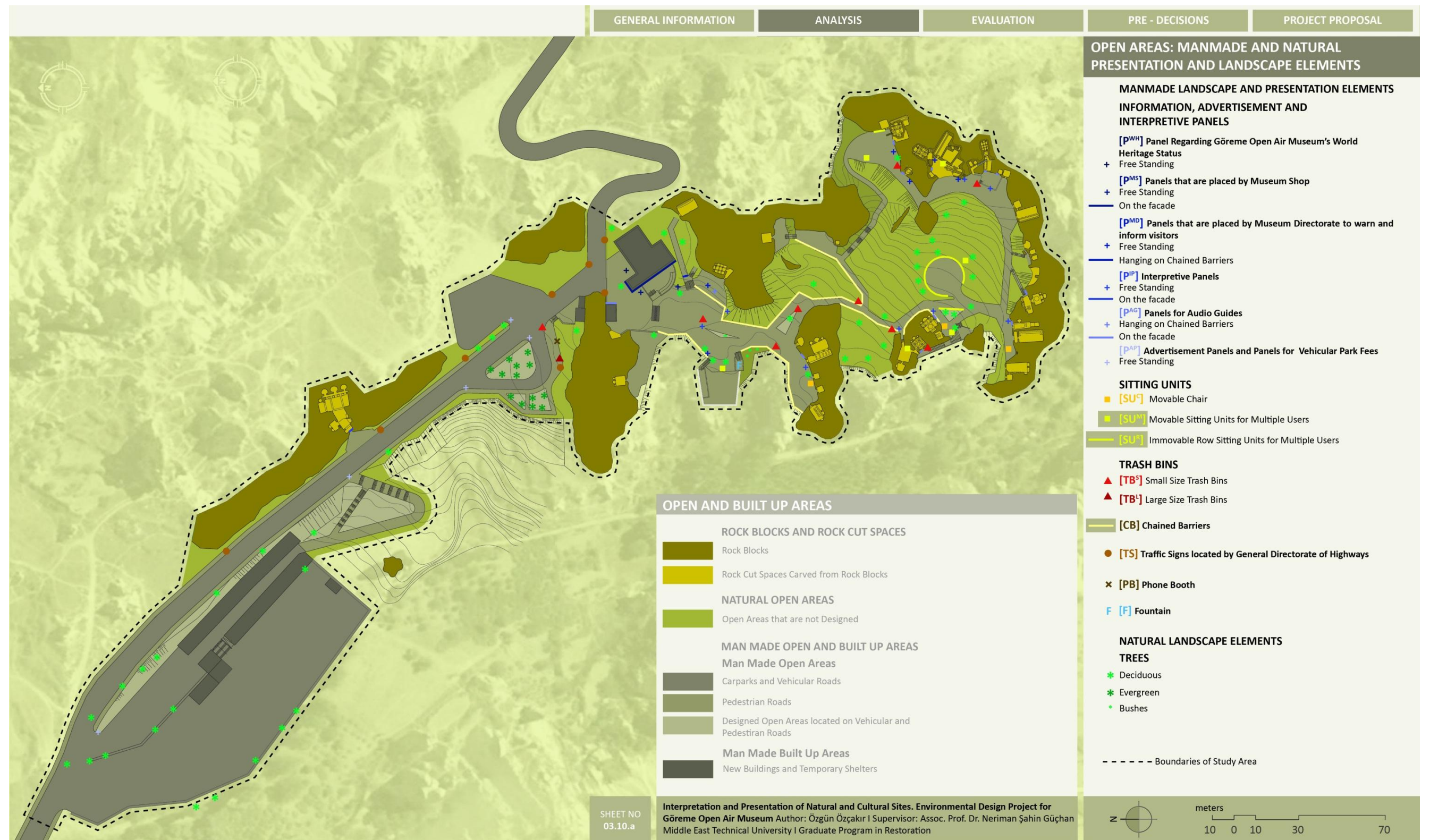


Figure 66 Manmade and Natural Presentation and Landscape Elements

INFORMATION, ADVERTISEMENT AND INTERPRETIVE PANELS

[P^{WH}] Panel Regarding to Göreme Open Air Museum's World Heritage Status



[P^{MS}] Panels that are placed by Museum Shop



[P^{MD}] Panels that are placed by Museum Directorate to warn and inform visitors



[P^{IP}] Interpretation Panels



OPEN AREAS: NATURAL AND MANMADE LANDSCAPE AND PRESENTATION ELEMENTS

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.10.b	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 67 Photographs of Natural and Manmade Presentation and Landscape Elements / 01

INFORMATION, ADVERTISEMENT AND INTERPRETIVE PANELS - cont.

[P^{AG}] Panels for Audio Guides



+ Hanging on Chained Barriers



On the facade

[P^{AP}] Advertisement Panels and Panels for Vehicular Park Fees



+ Free Standing

SITTING UNITS



[SU^M] Movable Sitting Units for Multiple Users



[SU^C] Chair



[SU^R] Immovable Row Sitting Units for Multiple Users

OPEN AREAS: NATURAL AND MANMADE LANDSCAPE AND PRESENTATION ELEMENTS

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.10.c	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 68 Photographs of Natural and Manmade Presentation and Landscape Elements / 02

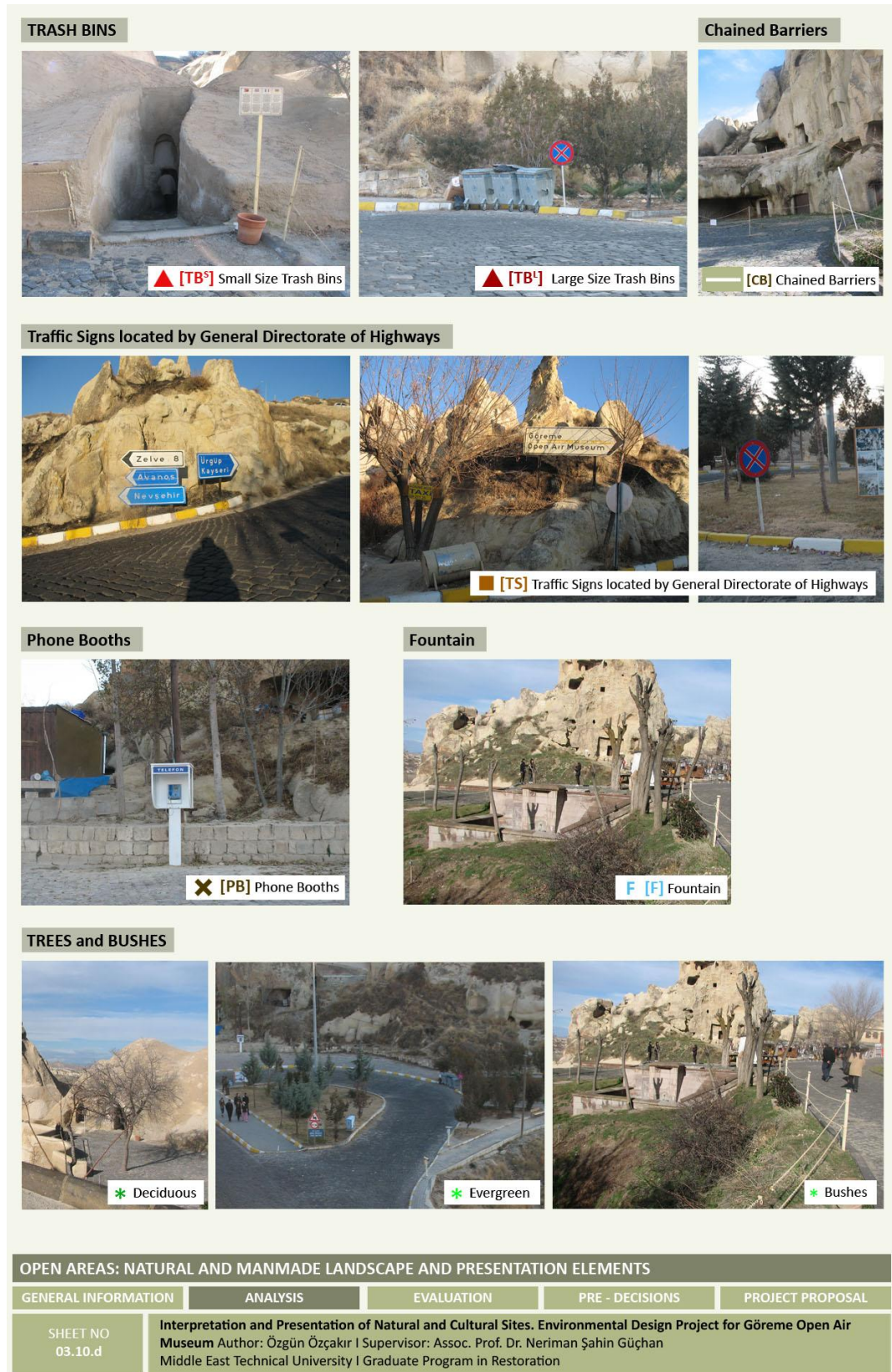


Figure 69 Photographs of Natural and Manmade Presentation and Landscape Elements / 03

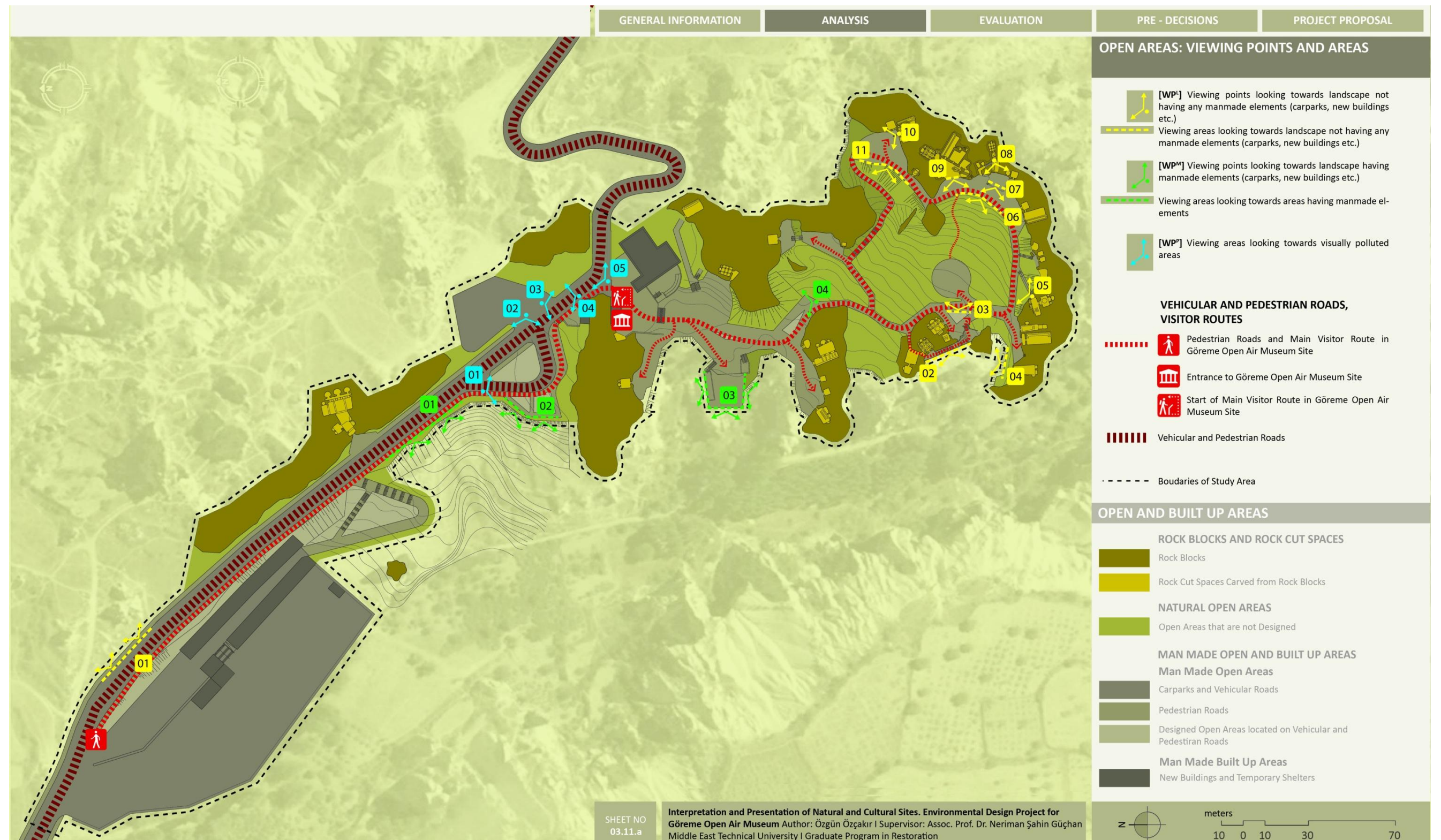
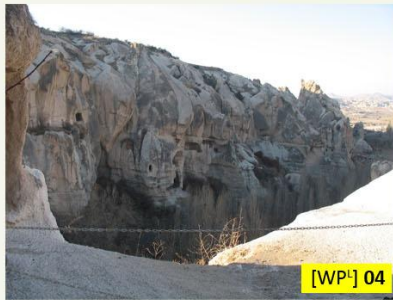
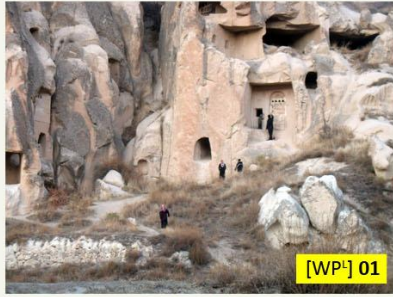


Figure 70 Open Areas: Viewing Points and Areas

[WP¹] Viewing points and areas looking towards landscape not having any manmade elements

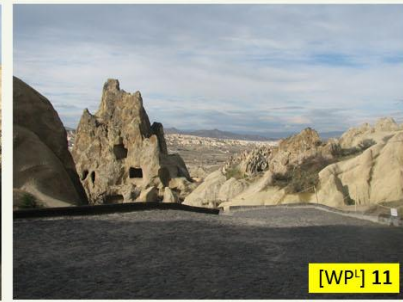


OPEN AREAS: USE

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.1.b	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 71 Photographs of Viewing Points and Areas / 01

[WP¹] Viewing points and areas looking towards landscape not having any manmade elements - cont.

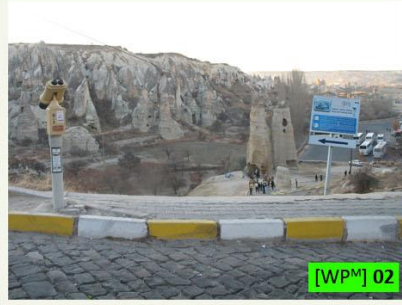
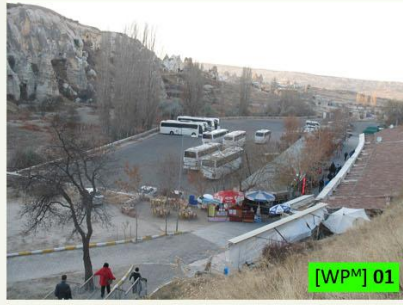


OPEN AREAS: USE

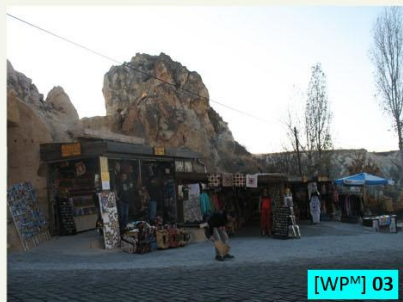
GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.11.c	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 72 Photographs of Viewing Points and Areas / 02

[WPM] Viewing points and areas looking towards landscape having manmade elements



[WPM] Viewing points looking towards areas having visual pollution



OPEN AREAS: USE

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.11.d	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır I Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University I Graduate Program in Restoration			

Figure 73 Photographs of Viewing Points and Areas / 03

3.4.2. CHARACTERISTICS OF BUILT AREAS

Göreme Open Air Museum, of which most important component is open areas, is also composed of built areas which are rock-cut spaces, new constructions and temporary structures. On the contrary to new buildings and temporary structures, rock cut buildings cannot be easily recognized in GOAM because of being carved into rocks.

As mentioned earlier, “built areas” are analyzed under four titles; **Building Types, Use, Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities**, and **Structural Condition**. These titles are explained and defined below by giving references to each element of analysis titles.

Building Types in GOAM

Built areas can be grouped in three in GOAM as: **Rock Cut Spaces, New Buildings** and a **Temporary Structure** (Figure 89).

Rock Cut Spaces

There are two types of rock cut spaces dating back to 10th – 13th century⁸⁷ in GOAM: religious rock cut spaces such as church, monastery, chapel and non-religious rock cut spaces as such as depots and refectories. On the walls of some of religious rock cut spaces, there are wall paintings about Christianity with different techniques and different forms. Besides religious and non-religious rock cut spaces, there are “Unnamed Rock Cut Spaces” that their functions are unknown.

Locations and architectural features of all these rock cut spaces are defined in detail below by giving references to their numbers on the analysis sheets.

[01] Tokalı Church is located at the north west of the **[VR]** and outside the paid entrance of GOAM. Entrance to Tokalı Church is from west. The church is 22 meters long and approximately 12 meters wide and covers 250 m² area.⁸⁸ The height of the church is approximately 6 meters. Tokalı Church dates back to 10th century and is known as the oldest rock cut church in the region. Besides being the oldest, Tokalı Church is considered as the biggest rock cut church in the area.

⁸⁷ Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 45). İstanbul: BKG Yayınları.

⁸⁸ The information is gathered from the plan drawings of churches on base map which is produced by the author



Figure 74 [01] Tokalı Church. Source: <http://www.flickr.com>, last access in 04 September 2012

The church has two storeys and consists of three sections which are built in different time periods. These three sections are “the old church with barrel vault and one nave”, “the new church” and “the lower church under the old church”. The single naved and barrel vaulted old church works as an entrance to new church today. The apse of the old church which is located in the east wing is demolished during the construction of the new church. The new church section – which dates back to last decade of 10th century and first decade of 11th century – has rectangular shape and located perpendicular to old church section. The new church has barrel vault. On the east of new church, there are three columns and four arches. Wall paintings are located on the vault and on the upper part of the walls of the old church section. Use of dark blue color in wall paintings distinguishes Tokalı Church from other churches located in surrounding area. On the barrel vault of new church, there are wall paintings regarding Christianity.⁸⁹

[02] Erkekler Monastery is rock cut monastery carved from six or seven storeys high rock blocks. There is not any information regarding construction date of this rock cut space. It is located at southwest of the paid entrance of GOAM. Access to Erkekler Monastery is not permitted due to structural problems of rock blocks and author could not enter the Erkekler Monastery during his site visit for same reason. For that reason, there is not any information regarding Erkekler Monastery’s architectural features and wall paintings.

[03] Unnamed rock cut spaces are composed of two rock cut spaces and a refectory. The entrance is not allowed to these spaces and author also could not enter these spaces during his site survey. Construction date of these rock cut spaces is unknown. While the plan drawing of refectory is obtained from the sources, there is not any information

⁸⁹ Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 66). İstanbul: BKG Yayınları.

regarding two rock cut spaces located at the east of refectory. In that respect, architectural features of these spaces are not mentioned. The refectory which is located at the west has rock cut dining table at the south of the space and two niches on the south wall. The refectory is 3,75 meters wide and 7 meters long and covers 26 m² area.⁹⁰ Information about the ceiling and heights of these rock cut spaces are unknown because of no access to these spaces.

[04] Saint Basil Chapel is located at the east of the **[03] Unnamed Rock Cut Spaces**. Entrance to Saint Basil Chapel is from north. The chapel is 11 meters long and 10 meters wide and covers 80 m² area.⁹¹ The height of the church is approximately 4 meters. Saint Basil Chapel dates back to 11th century. The church is composed of narthex and nave sections. In the columned narthex of the chapel, graves are carved into ground. There is a rectangular nave adjacent to narthex and nave and narthex is connected by the colonnaded transition between them. The rectangular nave is barrel vaulted. Three apses – the central apse is bigger than the other two apses – are located at the eastern wall of the chapel. The wall paintings can be seen on central apse and north wall of chapel.⁹²



Figure 75 [04] Saint Basil Chapel. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[05] Elmalı Church is located at the north of the **[04] Saint Basil Chapel**. There is a rectangular rock cut space adjacent to Elmalı Church which does not have ceiling. Access to this rectangular space from **[MT]** is provided by a tunnel which is located at the east

⁹⁰ The information is gathered from the plan drawings of churches on base map which is produced by the author.

⁹¹ ibid.

⁹² Korat, G. (2003). Kapadokya'daki Roma ve Hristiyan Yapıları. *Taş kapıdan taşkapiya: Kapadokya* (1. baskı. ed., p. 157). Çağaloğlu, İstanbul: İletişim.

corner of this space. This tunnel has stairs going downwards. Rectangular space is 7 meters by 5 meters and covers 35 m² area.⁹³ In order to enter Elmalı Church, this rectangular rock cut space should be passed through.



Figure 76 [05] Elmalı Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

Entrance to Elmalı Church is from southwest direction. Elmalı Church is 5,6 meters long and 5,4 meters wide and covers 32 m² area.⁹⁴ The height of the church is approximately 4 meters. Elmalı Church dates back to mid-11th century and early 12th century. There are four columns and nine domes in Elmalı Church. In that respect, Elmalı Church belongs to cruciform plan type of churches. Wall paintings of this church have geometric forms. These geometric forms are painted directly to rock surfaces with red colored ochre. This technique is also seen in the chapels of St. Barbara and St. Basil.⁹⁵

[06] Saint Barbara Church is located at the southeast of Elmalı Church. Entrance to Saint Barbara Church is from southeast. Saint Barbara Church 6,5 meters long and 6,5 meters wide and covers 40 m² area. The height of the church is approximately 4 meters. Saint Barbara Church dates back to second half of the 11th century. Church has cruciform type of plan. It has two columns and north, south and the west sections of cruciform is barrel vaulted. The center and the east of the cruciform is covered with dome. There are three apses – the central apse is bigger than the other two side apses – which are located at the eastern section of the church. Wall paintings of this church have variety of forms

⁹³ The information is gathered from the plan drawings of churches on base map which is produced by the author.

⁹⁴ *ibid.*

⁹⁵ Tuna, T., & Demirdurak, B. (2010). *Adım Adım Kapadokya. Kapadokya* (p. 48). İstanbul: BKG Yayınları.

including geometrical patterns, mythological animals and military symbols. These forms are painted directly to rock surfaces with red colored ochre.⁹⁶



Figure 77 [06] Saint Barbara Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/, last access in 04 September 2012

[07] Refectory and Depot are two rock cut spaces located at the southwest corner of GOAM. The rock cut space – which is located at east – is refectory, the other one is depot. Entrance to these rock cut spaces are from north walls. Refectory and Depot are connected to each other by tunnel. Tunnel is located at the north of these spaces, just after the entrance gates. These rock cut spaces show differences in terms of their sizes. Refectory is bigger than Depot. Refectory is 9 meters long and 4,5 meters wide and covers 42 m² area. There are niches in different sizes located on the south and west walls of Refectory. Depot is 2,5 meters long and 2,5 meters wide and covers 6,5 m² area.⁹⁷ Information about the heights and ceilings of these rock cut spaces is not gathered because author had no access to these spaces during his site survey.

[08] Refectory is located at the east of **[07] Unnamed Rock Cut Spaces**. The refectory is composed of two sections, the first section is entrance and the second section is refectory. These two sections are connected to each other with tunnel. Entrance section is 1,5 meters long and 5,5 meters wide and covers 8,5 m² area.⁹⁸ The height of the entrance section is approximately 3 meters. Refectory section is 11,5 meters long and 5,5

⁹⁶ Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 50). İstanbul: BKG Yayınları.

⁹⁷ The information is gathered from the plan drawings of churches on base map which is produced by the author.

⁹⁸ Ibid.

meters wide and covers 65,5 m² area.⁹⁹ There is rock cut dining table at the east of the refectory section. Information about the heights and ceilings of these rock cut spaces are unknown because information is not gathered during the site visit due to no access to space.

[09] Yılanlı Church is located at the east of **[08] Refectory** and adjacent to it. Yılanlı Church dates back to 11th century. Yılanlı Church shows different plan characteristics comparing to other churches in Göreme Open Air Museum. Entrance to Yılanlı Church is from north. Yılanlı Church is 12 meters long and 3 meters wide and covers 35 m² area.¹⁰⁰ The height of the church is approximately 4 meters. The church is composed of two sections. The first and main section is rectangular and barrel vaulted. On the east wall of this section there is an apse. Second section which is located at the south of main section has flat ceiling. There are graves carved into ground in the second section of the church. The portraits of the saints of Cappadocia are painted on the vault of second section.¹⁰¹

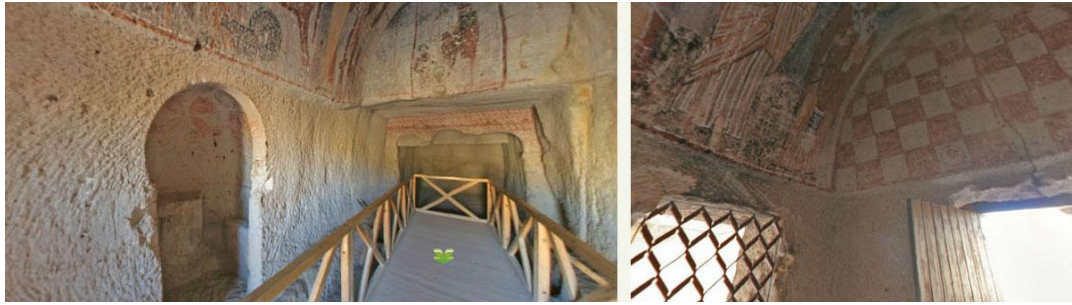


Figure 78 [09] Yılanlı Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[10] Pontokrator Church is located at the east of **[09] Yılanlı Church**. Entrance to church is from southeast and the church is accessed via steep stairs. Pontokrator Church is composed of two main sections: narthex and nave. Narthex and nave is connected to each other via the opening located at the southeastern wall of narthex. Narthex section of church is 8 meters long and 3 meters wide and covers 25 m² area. The height of the

⁹⁹ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹⁰⁰ ibid.

¹⁰¹ Korat, G. (2003). Kapadokya'daki Roma ve Hristiyan Yapıları. *Taş kapıdan taşkapiya: Kapadokya* (1. baskı. ed., p. 159). Çağaloğlu, İstanbul: İletişim.

narthex is approximately 4 meters. Narthex has three niches on the north wall. Inside these niches, there are graves carved into ground. Not only inside the niches, but also on the southern part of the narthex there are graves carved into ground. Nave section of church is 5 meters wide and 4,5 meters long and covers 23 m² area. The height of the nave is approximately 4 meters. Nave is covered with dome and has three apses on the south wall of nave. The central apse is bigger than the side apses. Wall paintings of this church have geometric forms. These geometric forms are located on the vault of narthex, dome of the nave and arches of the niches. These forms are painted directly to rock surfaces with red colored ochre.¹⁰²



Figure 79 [10] Pontokrator Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[11] Unnamed Rock Cut Spaces are cluster of three rock cut spaces which are located at the east of **[10] Pontokrator Church**. Construction date of these rock cut spaces are unknown. Entrance to these rock cut spaces are from south and these spaces are accessed via steep stairs. While, rock cut spaces located in the west and the middle have rectangular plan shape and similar sizes; the east one has irregular plan shape and quite bigger comparing to them. The west rock cut space is 2,6 meters long and 2,1 meters wide and covers 5,5 m² area. The middle and east rock cut spaces are 2,8 meters long and 2,1 meters wide and covers 5,9 m² area.¹⁰³ The height of these rock cut spaces are approximately 3 meters. The ceilings of these rock cut spaces are flat and there is not any wall paintings on the walls.

¹⁰² Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 52). İstanbul: BKG Yayınları.

¹⁰³ The information is gathered from the plan drawings of churches on base map which is produced by the author.

[12] Refectory and Depot are two rock cut spaces located at the east of **[11] Unnamed Rock Cut Spaces** in GOAM. The rock cut space located at west is refectory, the other one is depot. Construction date of these rock cut spaces are unknown. Entrance to these rock cut spaces are from north. Refectory and Depot are connected to each other by the tunnel. Tunnel is located at the north of these spaces, just after the entrance gates. These rock cut spaces show differences in terms of their sizes. Refectory is bigger than Depot. Refectory is 9,75 meters long and 5,5 meters wide and covers 54 m² area.¹⁰⁴ There is rock cut dining table at the west of the refectory. Depot is 3,2 meters long and 3,2 meters wide and covers 10 m² area. The height of Refectory and Depot is approximately 3 meters. Refectory and depot have flat ceiling. While there is not any wall painting on the wall surfaces, there are stains of black smoke on the ceilings and west wall of the space.



Figure 81 [12] Refectory and Depot



Figure 80 [11] Unnamed Rock Cut Space

[13] Depot and Kitchen are located at the north east of **[12] Refectory and Depot**. Construction date of these rock cut spaces are unknown. Entrances to these rock cut spaces are from northwest. The rock cut space which is located at north is kitchen and the south one is depot. Kitchen is elevated from the depot and there is a platform in front of kitchen. Kitchen and depots are connected to each other by the tunnel with stairs which ascending through refectory. While, both of these depot and kitchen have rectangular shapes, depot is bigger than kitchen. The kitchen is 2 meters long and 2 meters wide and covers 4 m² area. There is “tandır” in the kitchen carved into ground. The depot is 3 meters long and 3,25 meters wide and covers 10 m² area.¹⁰⁵ The height of

¹⁰⁴ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹⁰⁵ *ibid.*

depot and kitchen is approximately 3 meters. The ceilings of depot and kitchen are flat and there is not any wall painting on the walls.

[14] Unnamed Church is located at the northeast of **[13] Depots**. Construction date of these rock cut spaces are unknown. Entrance to church is from northwest and the church is accessed via steep stairs. Unnamed Church is composed of two main sections: narthex and nave. Narthex and nave is connected to each other via the opening located at the eastern wall of narthex. Narthex section is 2 meters long and 2 meters wide and covers 4 m² area. The narthex is covered with dome. Nave section of the church is 3 meters wide and 3,5 meters long.¹⁰⁶ Height of the church is approximately 5 meters. There are four columns and nine domes. In that respect, the church belongs to cruciform plan type of churches. There are three apses on the east wall of nave. The central apse is bigger than the side apses. Wall paintings of this church have geometric forms. These geometric forms are located on the dome of narthex, dome of the nave and arches of the apses. These forms are painted directly to rock surfaces with red colored ochre.¹⁰⁷



Figure 82 [14] Unnamed Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[15] Refectory is located under **[14] Unnamed Church** and at the north of **[13] Depots**. Entrance to refectory is from terrace located at west. It is 8 meters long and 3,6 meters wide and covers 30 m² area. Height of the refectory is approximately 3 meters. There is rock cut dining table at the north of the refectory on which 40-50 people can have dine

¹⁰⁶ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹⁰⁷ Korat, G. (2003). Kapadokya'daki Roma ve Hristiyan Yapıları. *Taş kapıdan taşkapiya: Kapadokya* (1. baskı. ed., p. 157). Çağaloğlu, İstanbul: İletişim.

together.



Figure 83 [15] Refectory. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[16] Refectory and Depots are located at the north of **[15] Refectory**. They are cluster of three rock cut spaces which are adjacent to each other. This cluster of rock cut spaces is composed of one refectory and two depots. Refectory is located at the north of the cluster. Other two rock cut spaces are depots. Construction date of these spaces is unknown. Entrance to refectory and depots is from the platform located at the west of rock cut spaces. Platform is accessed via tunnel with stairs. **Refectory** is 10 meters long and 3,8 meter wide and covers 38 m² area.¹⁰⁸ Stair is located at the south wall of refectory ascending upstairs. Architectural features of the upper floor of refectory are unknown because information is not gathered during the site visit because of no access to space. Moreover, there is a rock cut dining table at northeast of refectory. **Depot** in the middle is 6,6 meters wide and 5 meters long and covers 40 m² area. The other **depot** in the southwest is 4 meters wide and 3,3 meters long and covers 15 m² area.¹⁰⁹ Information about the ceiling and heights of these rock cut spaces is not gathered because of no access to these spaces.

[17] Karanlık Church is located at the north of **[16] Refectory and Depots**. Entrance to Karanlık Church is from the same platform of **[16] Refectory and Depots**. Karanlık Church and platform are connected to each other via tunnel with stairs. Karanlık church dates back to end of 12th century and the beginning of 13th century. Karanlık Church composed of two main sections: narthex and nave. Stairs at the entrance ascend to narthex section of Karanlık Church. Narthex and nave is connected to each other via the opening located

¹⁰⁸ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹⁰⁹ *ibid.*

at the north wall of narthex. Narthex section of church is 3 meters long and 2,3 meters wide and covers 7 m² area.¹¹⁰ The height of the narthex is approximately 4 meters. Narthex is covered with barrel vault. There is a small window opening on the south wall of narthex. Graves are carved into ground in the niche which is located at the east of narthex. Nave section of church is 4,75 meters wide and 5 meters long and covers 24 m² area.¹¹¹ The height of the nave is approximately 4 meters. There are four columns and central dome in nave. In that respect, Karanlık Church belongs to cruciform type of churches. Three apses are located on the northeast wall of nave. The central apse is bigger than the side apses.

The church takes its name from the small opening on the south wall of narthex. This opening allows small amount of light come in. Due to the lack of light, the colors of wall paintings are well preserved. The narthex and nave is painted with scenes from bible and the life of Jesus. Comprehensive conservation works are done to wall paintings of Karanlık Church in order to reveal them.¹¹²



Figure 84 [17] Karanlık Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[18] Chapel Church is located at the west of **[17] Karanlık Church**. The church dates back to 11th century. Entrance to Chapel Church is from west. There are two side arms attached to main section of church at southwest – northwest direction. Moreover, there is one apse in church at southeast. In that respect, Chapel Church is cruciform type of

¹¹⁰ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹¹¹ ibid.

¹¹² Korat, G. (2003). Kapadokya'daki Roma ve Hristiyan Yapıları. *Taş kapıdan taşkapiya: Kapadokya* (1. baskı. ed., p. 161). Çağaloğlu, İstanbul: İletişim.

plan. Main section of church is 3 meters long and three meters wide and covers 10 m² area. Side arms are 80 centimeters long and 1,5 meters wide.¹¹³ The height of the space is approximately 4 meters. Main section of the church is covered with one central dome; side arms and apse are covered with barrel vaults. Graves are carved into ground at main section of the church. There are “arcosolias” – burial niches – carved on the side arms. On the walls of main section, there are figurative paintings. In the main section, pendentives are decorated with carvings.¹¹⁴



Figure 85 [18] Chapel Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[19] Çarıklı Church is located at the east of **[18] Chapel Church**. The church dates back to end of 12th century and the beginning of 13th century. Entrance to church is from north and church is accessed via steep stairs. There are three apses – the central apse is bigger than side apses – on the east wall and a niche on west wall. The church is 5,2 wide and 4,2 long and covers 22 m² area. The height of the church is approximately 5 meters. Graves are carved into ground inside the niche on west wall. There are two columns and four domes in Çarıklı Church. Plan of Çarıklı Church shows similarities with Saint Barbara Church. Wall paintings of the church are well preserved and depict life of Jesus, hospitality of Abraham and images of saints. The church takes its name from the sandals that saints depicted on wall paintings wear.

¹¹³ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹¹⁴ Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 66). İstanbul: BKG Yayınları.



Figure 86 [19] Çarıklı Church. Source: http://www.360tr.com/50_nevsehir/kapadokya/ , last access in 04 September 2012

[20] Refectory and Depots are located under **[19] Çarıklı Church**. They are cluster of three rock cut spaces which are adjacent to each other. This cluster of rock cut space is composed of one refectory and two depots. Refectory is located between two depots. Entrance to refectory is from north. Refectory is 8,3 meters long and 4,6 meters wide and covers 40 m² area.¹¹⁵ Refectory has flat ceiling and it is approximately 3 meters high. There is not any wall painting in the refectory. Depot at the west of refectory is 6,5 meters long and 4,5 meters wide.¹¹⁶ Depot at the north of refectory is 4 meters long and 4 meters wide and covers 16 m² area. Information about the ceiling and height of two depots is not gathered because of no access to this spaces.

[21] Unnamed Rock Cut Space is located at northwest of **[20] Refectory and Depots**. Entrance to this rock cut space is from northwest but entrance is not allowed to **[21] Unnamed Rock Cut Space**. There is not any information regarding this rock cut space's architectural features and wall paintings because author could not enter this space during his site survey.

[22] Unnamed Rock Cut Space is located at north of **[21] Unnamed Rock Cut Space**. Entrance to this rock cut space is from south but entrance is not allowed to this rock cut space. There is not any information regarding this rock cut space's architectural features and wall paintings because author could not enter this space during his site survey.

[23] Rahibeler Monastery is rock cut monastery carved from six or seven storeys high rock blocks. It is located at south of the paid entrance of GOAM. Access to Rahibeler

¹¹⁵ The information is gathered from the plan drawings of churches on base map which is produced by the author.

¹¹⁶ ibid.

Monastery is not permitted due to structural problems of rock block. There is not any information regarding Rahibeler Monastery's architectural features and wall paintings because author could not enter this space during his site survey.

[24] Refectory is located northeast of **[23] Rahibeler Monastery** and at the southeast of the paid entrance of GOAM. Entrance to refectory is from northwest. As seen in the plan drawing of refectory, It is 9,2 meters long and 5,2 meters wide and covers 48 m² area. There is rock cut dining table at the northeast of the refectory. Information about the ceiling and height of refectory is not gathered because author could not enter this space during his site survey.

New Buildings

In Göreme Open Air Museum, besides rock cut spaces, there are six types of permanent new buildings according to their contemporary building materials and construction technique (Figure 90).

[A] Shops, Restaurant and WC, which is built in 1997 as a part of vehicular parking are¹¹⁷, is located in upper platform of **[CP¹]** vehicular park. **[A]** is composed of two row buildings that are looking to each other. There is a pedestrian passageway **[PR¹]** between these two row buildings. While, the row building located at northeast sits back to topography; the row building located at southwest sits on ground. There are glass souvenir displays throughout the passageway between these two row buildings. Also, there are semi-open areas under the roof of these row buildings. **[A]** is 25 meters wide, 60 meters long and covers 1500 m² area. Height of **[A]** is three and half meters. The row buildings which is located at west has lean-to roof made of undulated metal sheet and the row building which is located at east has lean-to roof made of terracotta tiles.

[B] Barrack is located in the south of lower platform in **[CP¹]** vehicular park. Construction date of **[B]** is unknown. **[B] Barrack** is rectangular prism having 20 meters length and 14 meters width and covers 280 m² area. Height of **[B]** is three meters. Barrack has lean-to roof made of undulated metal sheet. There is no access to this building and it is not used.

[C] Souvenir Shops are located at the north of paid entrance of GOAM. **[C]** has 10 meters

¹¹⁷ Yenipinar, H. (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. In Olşen, K., et al (Ed.), *Müze çalışmaları ve Kurtarma Kazıları Sempozyumu: 24 - 26 Nisan 2000, Denizli.* (p. 208). (2001). Göreme Açık hava Müzesi Çevre Düzenleme Çalışmaları. Ankara: Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayını.

length and 4,5 meters width and covers 45 m² area. Height of [C] is three and half meters. There is an these souvenir shops. In this open area, there are souvenir displays. Souvenir shops are covered with lean-to roofs made of terracotta tiles.

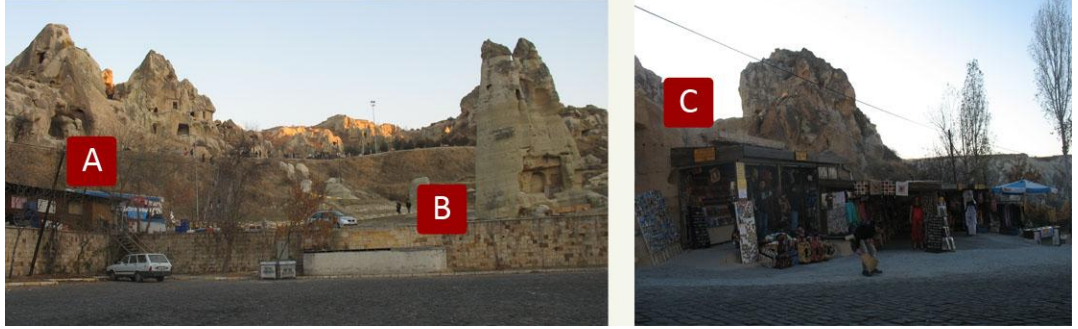


Figure 87 [A] Shops, Restaurant and WC, [B] Barrack and [C] Souvenir Shops

[D] Ticket Sales building is located at the west of paid entrance of GOAM. **[B]** building is rectangular prism and covers 350 m² area. **[B]** has beige colored stone cladding. There are openings having ticket counter on the south façade of the building in order to sell tickets to visitors. Height of **[D]** is three meters and covered with lean-to roof made of terracotta tiles.

[E] Museum Shop and Café is located at the south of the paid entrance of GOAM. Museum Shop is embedded in the ground and has recessed open area in front of Museum Shop and Café. **[E]** has approximately 23 meters length and 18 meters width and covers 420 m² area. Open area of museum shop and café covers 150 m² area. Museum Shop and Café is covered with terrace roof and the roof on the same level with the ground.

[F] WC is located at southwest of **[E] Museum Shop and Café**. Its entrance from east and there is steep stairs leading downstairs. **[F] WC** is embedded in the ground and covers 45 m² area.

Temporary Structure

Besides rock cut spaces and permanent new buildings, there is one and only temporary structure in GOAM. **[X] Shelter over Entrance Toll** is located at the south of **[D] Ticket**

Sales and at the west of [E] **Museum Shop and Café**. This temporary structure is used to protect entrance tolls. It is 7 meters by 3,5 meters and made of tarp.



Figure 88 [D] Ticket Sales, [E] Museum Shop and Café [X] Shelter over Entrance Toll

Use of Built Areas and Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities in GOAM

In Göreme Open Air Museum, in order to satisfy needs of visitors, interpret the site to visitors and answer administrative requirements of the site, number of services and facilities are presented. The analysis of *Use of Built Areas and Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities* in GOAM is done in order to understand how built areas are used and services/ facilities presented regarding various uses (Figure 91). Use of built areas and facilities presented in built areas are interrelated to each other, because each facility is presented to each space regarding its use. In that respect, use of built areas is analyzed and then facilities in the built areas are stated.

Use of Built Areas is analyzed under two groups: rock cut spaces and new buildings and temporary structures. This is because, rock cut spaces are used especially in presentation based functions, on the contrary, new buildings and temporary structures are mostly used in service based functions.

There are four types of uses of rock cut spaces as described in the methodology: “Open to Public and Presented with Interpretive Facilities”, “Open to Public”, “Administrative Use” and “No Access”. Use of each of rock cut space is indicated in Table 15. In addition to rock cut spaces, use of new buildings and temporary structures are divided into six

types: “museum shop”, “ticket booth”, “WC”, “Shelter over Entrance Toll”, “Commercial Use”, and “No Access”. **[A] Shops, Restaurant and Café** and **[C] Souvenir Shops** are in commercial use as the names indicate, **[B] Barrack** is not used and there is not entrance to **[B]**, **[D]** is ticket sales office, **[E]** is Museum Shop and café, and **[F]** is WC. **[X]** is shelter over entrance toll.

Table 15 Use of Rock Cut Spaces

USE OF ROCK CUT SPACES	
Open to Public and Presented with Interpretive Facilities	[01] Tokalı Church, [04] Saint Basil Chapel, [05] Elmalı Church, [06] Saint Barbara Church, [09] Yılanlı Church, [10] Pontokrator Church, [13] Depot and Kitchen, [15] Refectory, [17] Karanlık Church, [18] Chapel Church and [19] Çarıklı Church
Open to Public	[11] Unnamed Rock Cut Spaces, [12] Refectory and Depot and [20] Refectory and Depots
Administrative Use	[07] Refectory and Depots, [16] Refectory and Depots and [24] Refectory
No Access	[02] Erkekler Monastery, [03] Unnamed rock cut spaces, [08] Refectory, [14] Unnamed Church, [21] Unnamed Rock Cut Space, [22] Unnamed Rock Cut Space and [23] Rahibeler Monastery

Besides Use of Built Areas, **Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities** is analyzed in order to document services and facilities in GOAM. Distribution of **Visitor** services in GOAM as follows. Souvenir shops, cafe and snack bar and WC are located in **[A]**. **[C]** is souvenir shop. **[D]** is ticket office. Souvenir

shop, café, snack bar and WC are located in [E], museum shop. [F] is WC and [X] is ticket toll. **Administrative Staff Services** in GOAM are refectory for officers, office and guardhouse. [07] is used as refectory, [16] is used as office of museum manager and [24] is used as guardhouse in Göreme Open Air Museum. **Interpretive facilities** in GOAM are proposed in order to provide enjoyable and safe visit for visitors. **Interpretive facilities** in GOAM are listed as audio guide, interpretive panel and visitor deck. In [05], [06], [09], [17] and [19] spaces; audio guide, interpretive panel and visitor deck are proposed. This rock cut spaces are fully equipped with interpretive infrastructure of GOAM. There are audio guide and interpretive panels in [04], [18], and [23]. [10], [14], [15] and [20] are equipped with audio guide. In [01], there is interpretive panel and visitor deck.

Structural Condition of Rock Cut Spaces in GOAM

In Göreme Open Air Museum, structural problems reduce visitor experiences due to not allowing entrance to rock cut spaces with structural problems (Figure 91). In order to propose comprehensive experience for visitors in GOAM, structural problems should be solved and entrance should be provided to all of rock cut spaces whether it is limited or not. [02], [19], [20] and [23] have serious structural problems. [01], [04], [05], [06], [10], [16] and [17] have moderate structural problems. [11], [12], [13], [14] and [15] do not have any structural problems (Table 16). The other rock cut spaces are not surveyed due to no access to these spaces.

Table 16 Structural Condition of Rock Cut Spaces

STRUCTURAL CONDITION OF ROCK CUT SPACES	
Rock cut spaces having serious structural problems	[2] Erkekler Mon., [19] Çarıklı Church, [20] Refectory and Depots, [23] Rahibeler Mon.
Rock cut spaces having moderate structural problems	[01] Tokalı Church, [04] Saint Basil Chapel, [05] Elmalı Church, [06] Saint Barbara Church, [10] Pantokrator Church, [16] Refectory and Depots, [17] Karanlık Church
Rock cut spaces having no structural problems	[11] Unnamed rock-cut spaces, [12] Refectory and Depots, [13] Depot and Kitchen, [14] Unnamed Church and [15] Refectory

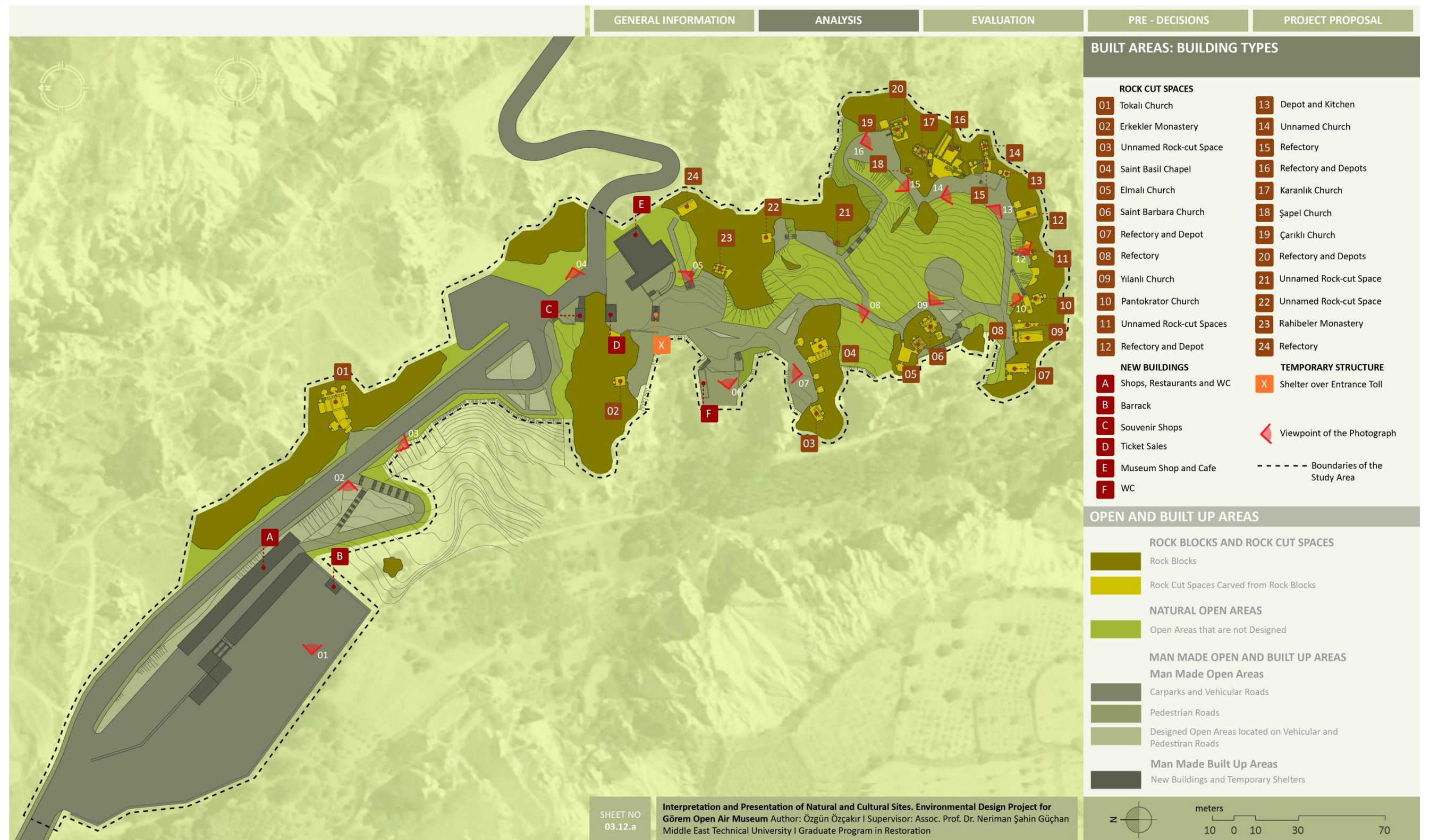


Figure 89 Built Areas: Building Types in GOAM

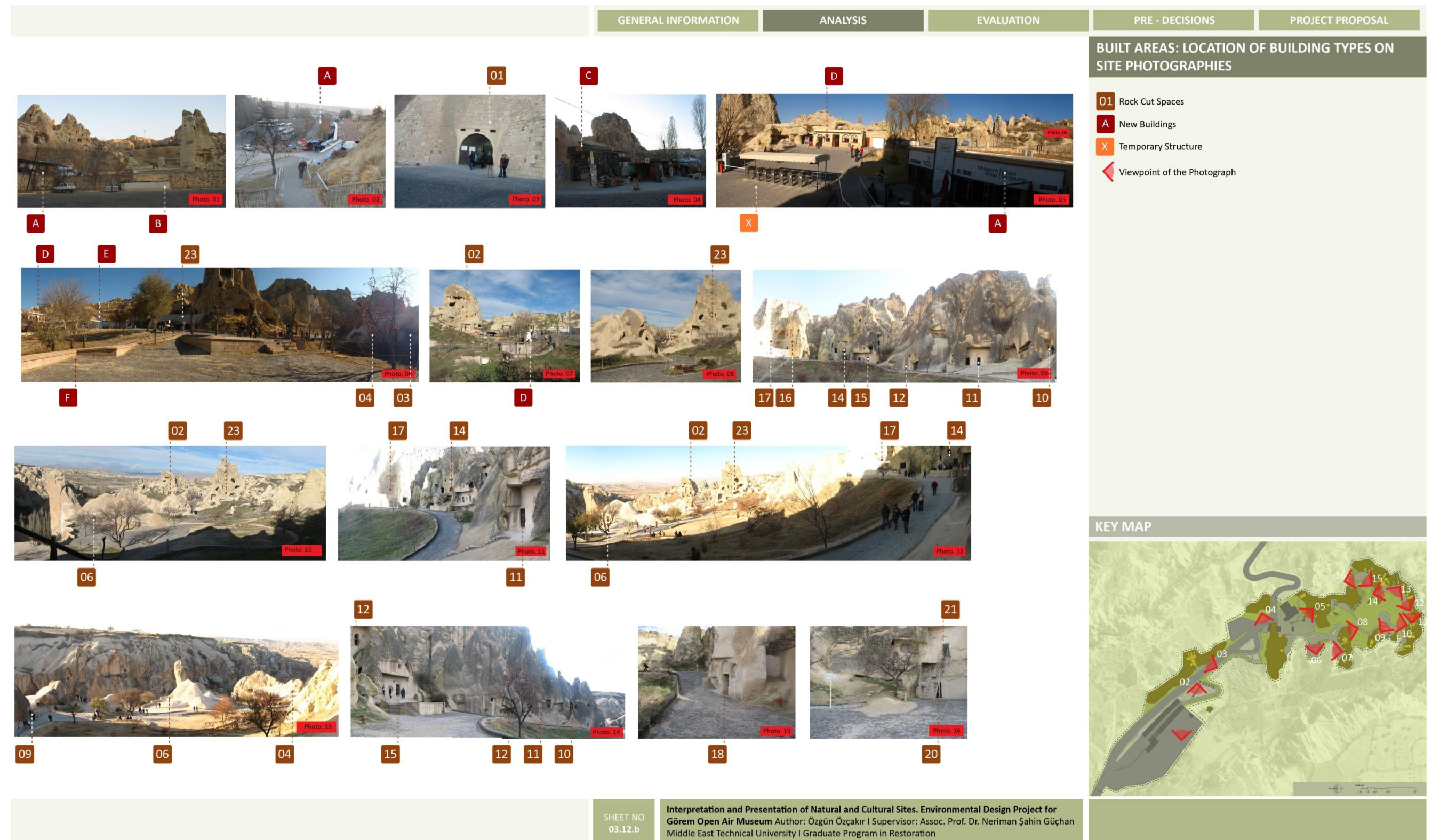


Figure 90 Photographs of Building Types in GOAM

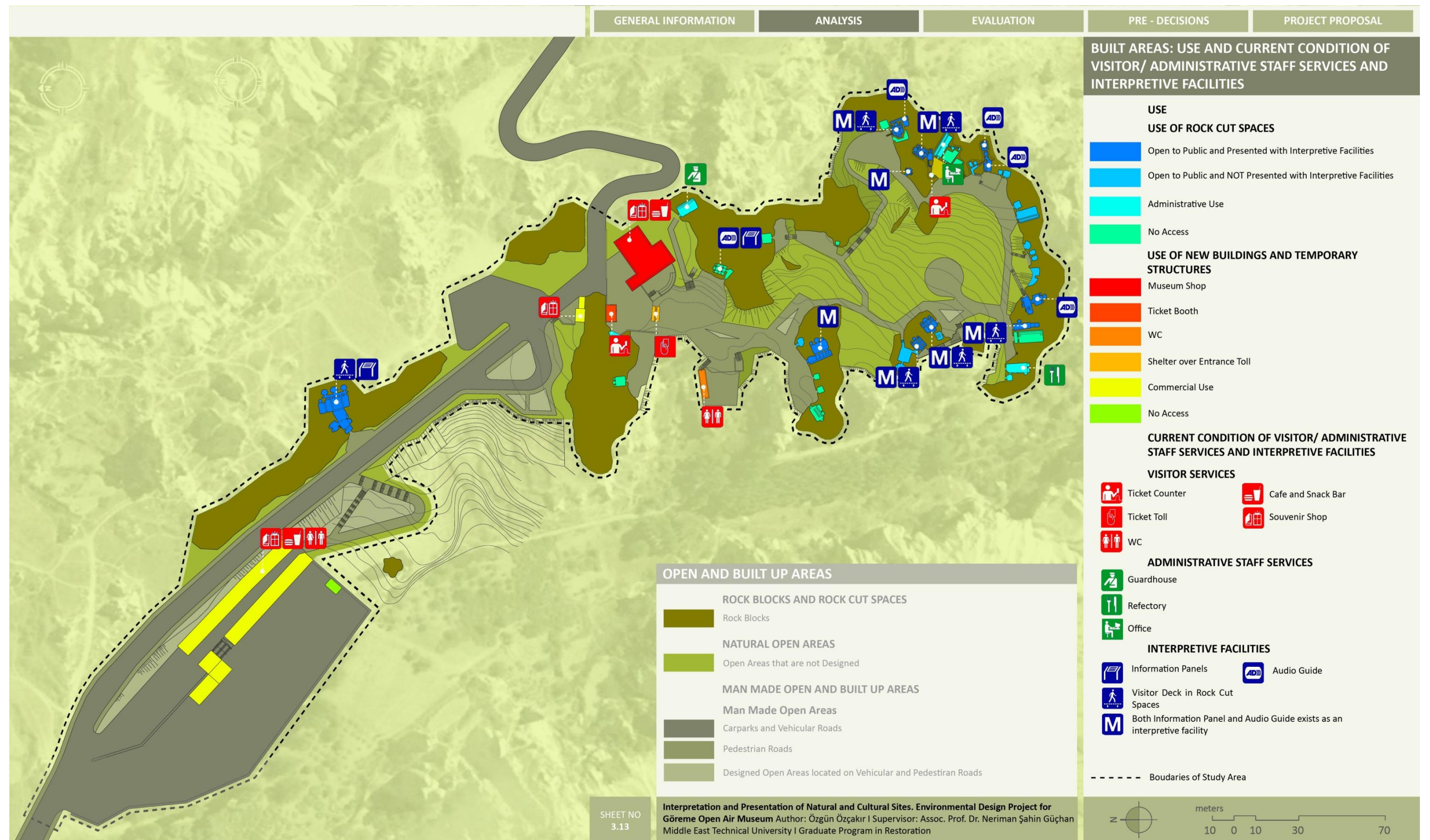


Figure 91 Built Areas: Use and Current Condition of Visitor/ Administrative Staff Services and Interpretive Facilities

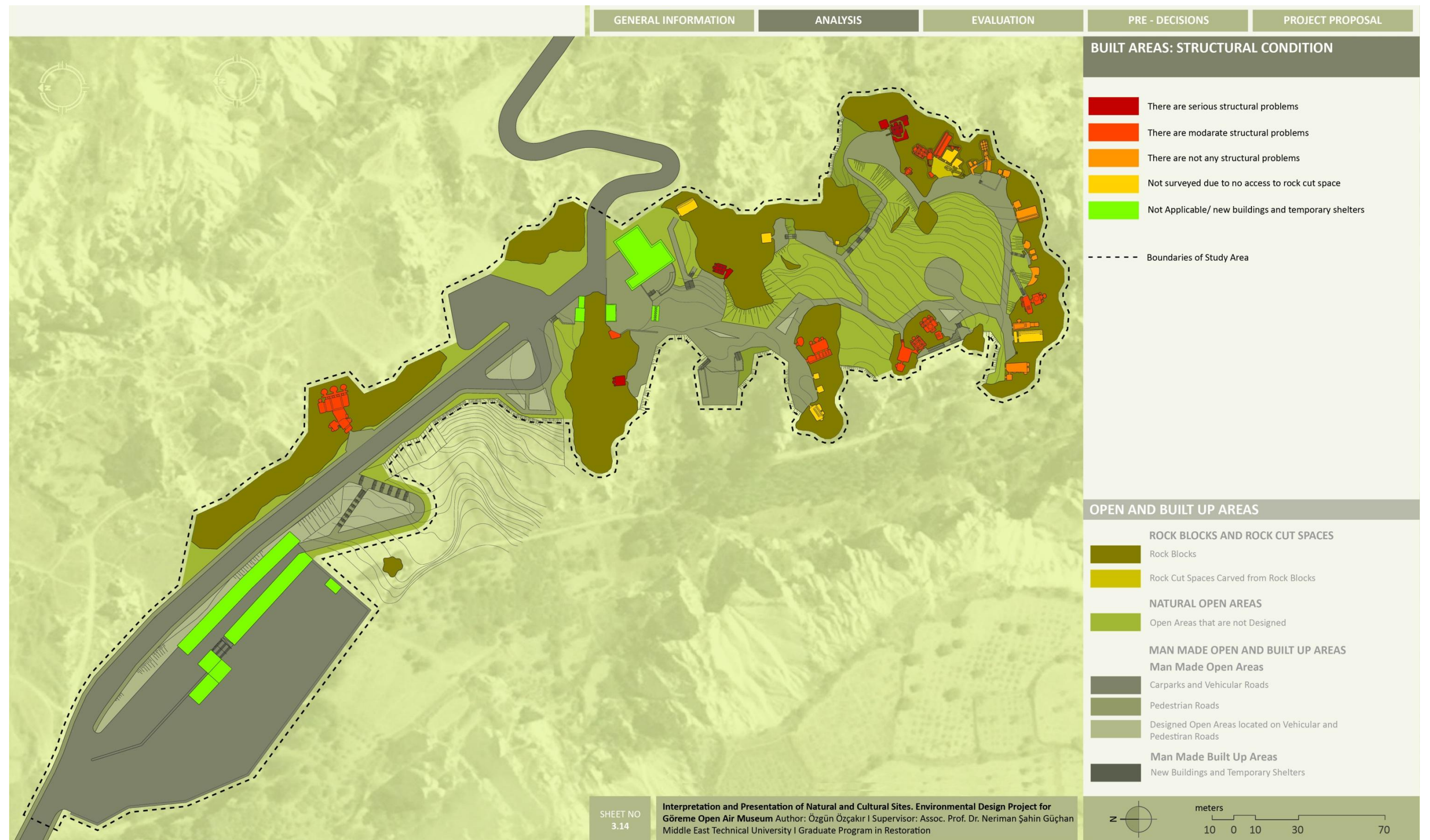


Figure 92 Built Areas: Structural Condition

3.4.3. ACCESSIBILITY

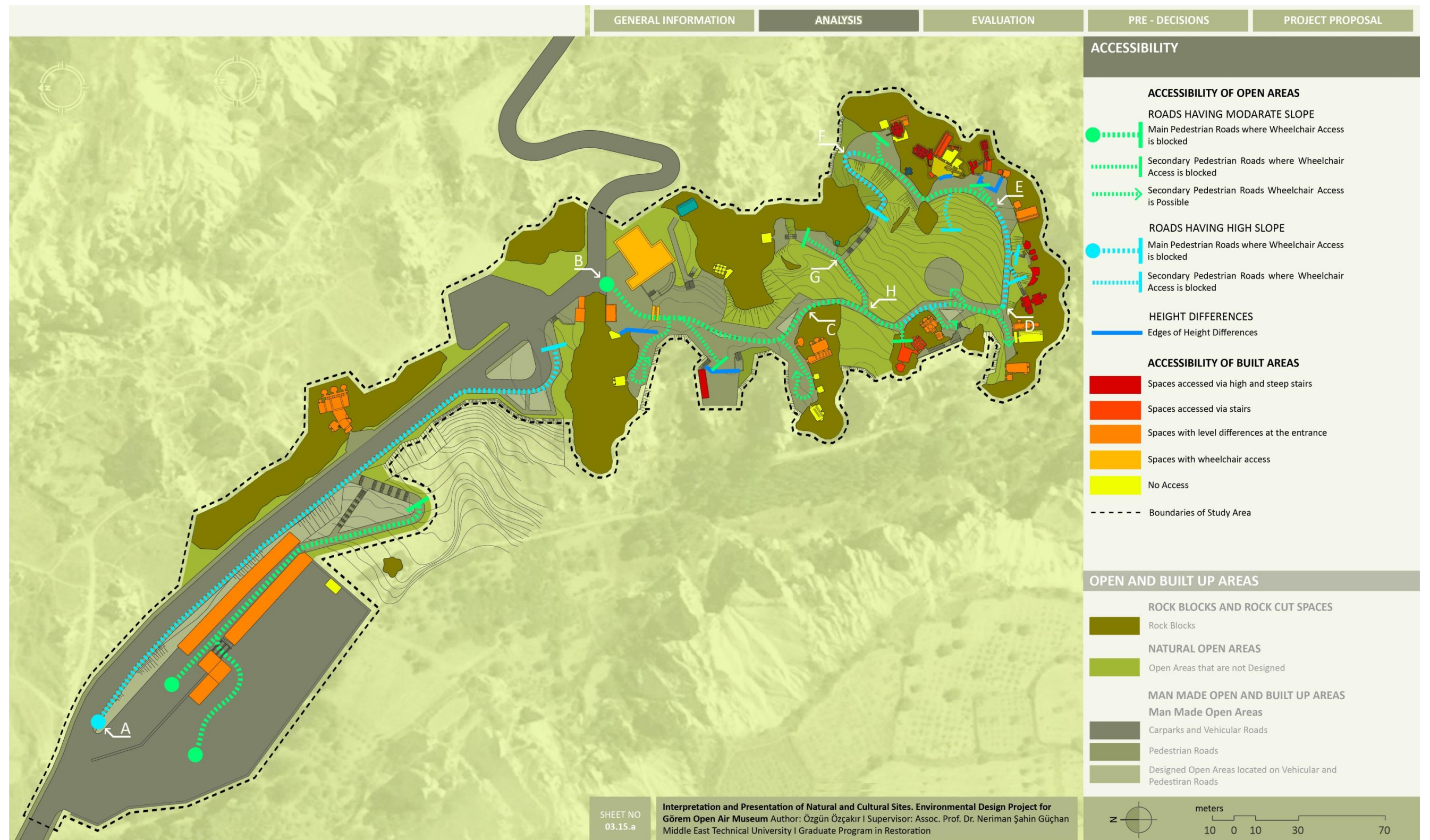
Existing pedestrian roads and museum trail in Göreme Open Air Museum does not fulfill the requirements of accessibility due to slope and uneven surfaces pavements (Figure 93). Slope and uneven surface of pavement of pedestrian roads create difficulties in wheelchair access and any measure is not taken in order to satisfy the needs of accessibility for visitors (Figure 94). Besides difficulty in wheelchair access; there is not any facilities proposed for visually impaired, deaf and other disabled visitors.

[PR¹] have high slope and is covered with pavement stone. High slope and uneven surfaces of pavements cause difficulties in approaching to museum entrance. Besides [PR¹], [PR²] has difficulties in access due to its steep stairs. Not only pedestrian roads, but also museum trail [MT] has difficulties in access because of high slope, steep stairs and uneven surface of pavement. The slope of [MT] does not ascend much to open area in front of Yılanlı Church. Starting from Yılanlı Church to Karanlık Church, the slope starts to ascend. After Çarıklı Church, there are stairs on [MT] leading downwards. Moreover, there are stairways that provide access to rock cut spaces located at the upper levels on both sides of [MT]. Besides stairs, height differences between platforms on [MT] obstruct wheelchair users' access to these areas.

Besides open areas, built areas also have difficulties in access. Except [E] Museum Shop and Café, all of the built areas cannot be accessed with wheelchair. Accessibility to built areas is mentioned below ranging from the most difficult access to the least difficult access and shown in Table 00. [10] Pantokrator Church, [11], [14], [19] Çarıklı Church and [F] WC are accessed via high and steep stairs. [05] Elmalı Church, [15] and [17] Karanlık Church are accessed via stairs and finally [1] Tokalı Church, [4] Saint Basil Chapel, [7] Refectory and Depot, [12] Refectory and Depot, [13] Depot and Kitchen, [16] Refectory and Depots, [20] Refectory and Depots, [A] Shops, Restaurants, and WC, [C] Souvenir Shops, and [D] Ticket Sales are spaces with level differences at the entrances. The other spaces; [B] Barrack, [2] Erkekler Monastery, [3] Unnamed Rock Cut Space, [4] Saint Basil Chapel, [6] Saint Barbara Church, [8] Refectory, [9] Yılanlı Church, [10] Pantokrator Church, [18] Şapel Church, [21] Unnamed Rock-cut Space, [22] Unnamed Rock-cut space, [23] Rahibeler Monastery, and [24] Refectory is not accessible because entrance is not allowed to these spaces.

Table 17 Accessibility of Built Areas

ACCESSIBILITY OF BUILT AREAS	
Spaces accessed via high and steep stairs	[10] Pantokrator Church, [11] Unnamed Rock-cut Space, [14] Unnamed Church, [19] Çarıklı Church, [F] WC
Spaces accessed via stairs	[05] Elmalı Church, [15] Refectory, [17] Karanlık Church
Spaces with level differences at the entrance	[1] Tokalı Church, [4] Saint Basil Chapel, [7] Refectory and Depot, [12] Refectory and Depot, [13] Depot and Kitchen, [16] Refectory and Depots, [20] Refectory and Depots, [A] Shops, Restaurants, and WC, [C] Souvenir Shops, [D] Ticket Sales
Spaces with wheelchair access	[E] Museum Shop and Café
Spaces with no access	[B] Barrack, [2] Erkekler Monastery, [3] Unnamed Rock-cut Space, [4] Saint Basil Chapel, [6] Saint Barbara Church, [8] Refectory, [9] Yılanlı Church, [10] Pantokrator Church, [18] Şapel Church, [21] Unnamed Rock-cut Space, [22] Unnamed Rock-cut Space, [23] Rahibeler Monastery, [24] Refectory



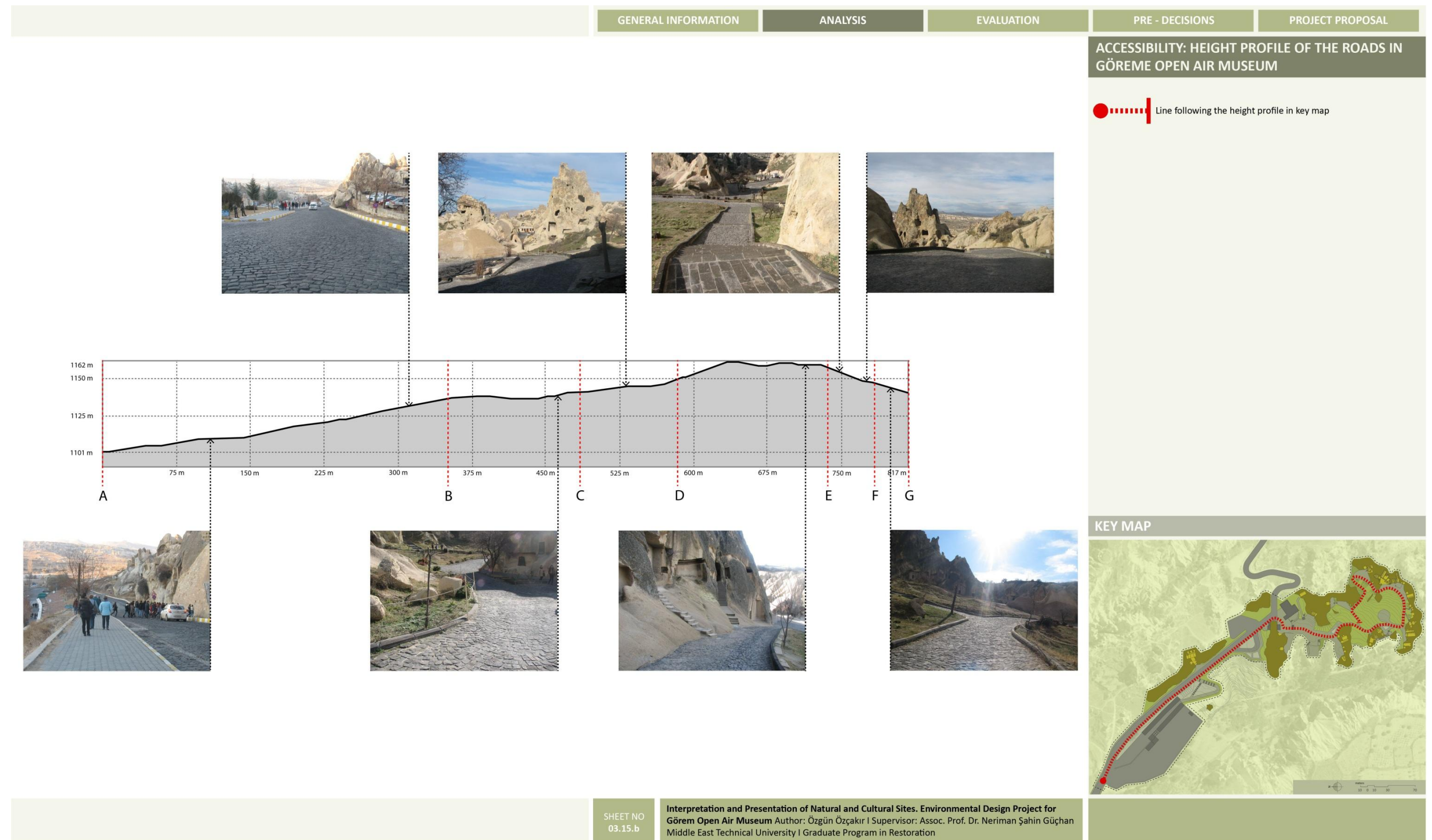


Figure 94 Accessibility: Height Profile of the Roads in GOAM

3.4.4. VISITOR DENSITY

While rock cut spaces have limited density regarding their capacity of visitors due to their spatial features as having defined boundaries, open areas do not have such limited density. In that respect, density in open areas shows diversity in terms of being more or less dense for various reasons. Denser areas comparing to other open areas in GOAM are defines as $[G^1]$ area in front of Tokalı Church, $[G^3]$ area between ticket booth and entrance tolls, $[G^4]$ in front of Erkekler Monastery, $[R^2]$ area between WC and Fountain and equipped with sitting units, $[R^4]$ in front of Saint Barbara Church, $[G^6]$ area in front of terrace of rock cut refectory and depots, and $[G^7]$ area in front of Çarıklı Church (Figure 95). $[G^1]$ is denser because of visitors who wait to enter Tokalı Church in crowded days. Besides $[G^1]$, $[G^6]$ is denser due to visitors waiting for entering rock cut spaces and $[G^7]$ is denser because of waiting to enter to Çarıklı Church. Visitors who buy entrance tickets and entering/ leaving museum pass through $[G^3]$ and this causes density. Tour groups gather in $[G^4]$ at first when they enter the museum, so this situation create density. $[R^2]$ area is denser because visitors have a rest after their museum visit in shaded areas under trees by sitting wooden park benches. Visitors take photographs of museum and Cappadocia landscape in $[R^4]$ area due to its visual values, this situation results density.

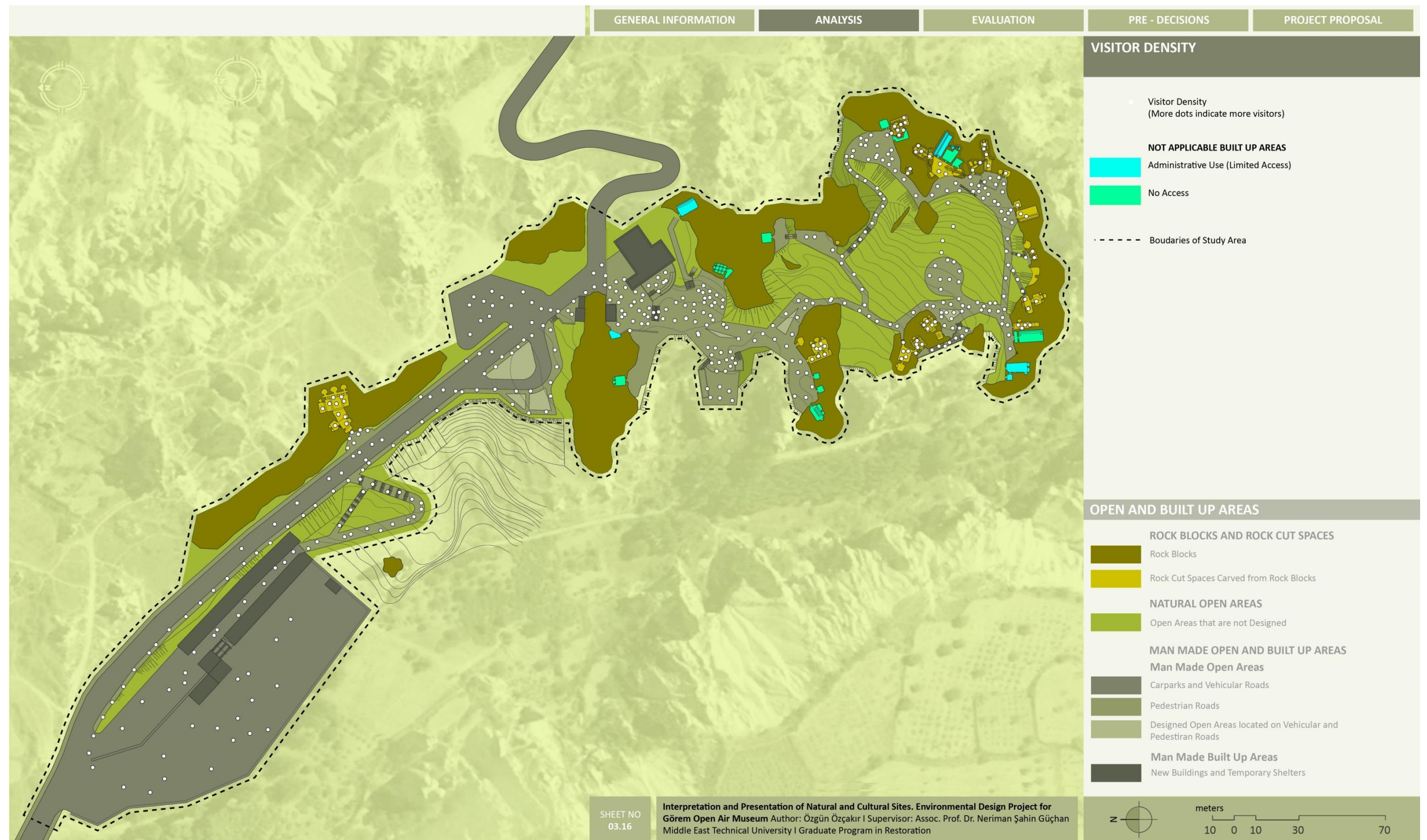


Figure 95 Visitor Density in GOAM

3.4.5. CURRENT VISITOR USES, PRACTICES AND ROUTES

Current visitor uses and practices are complex in GOAM. Explanation of such complex patterns is essential to understand uses of visitors and their practices throughout their museum visit. Open areas with various uses are described below and visitor practices are explained stage by stage by giving references to analysis sheets.

Uses of Open Areas in GOAM

There are three different types of areas having different uses in Göreme Open Air Museum as **Gathering Areas [G^x]**, **Open Areas of Commercial Buildings [O^x]** and **Resting Areas [R^x]**. Locations of these three types of open areas are mapped in Figure 96 and they are explained below.

Gathering Areas [G^x] are places where visitors wait for church queues, take photographs of Cappadocia landscape and tourist groups gather. There are seven gathering areas in Göreme Open Air Museum. Codes are given to each gathering area starting from [G¹] to [G⁷] and each of them explained below. While these areas are not defined by physical boundaries, the boundaries are defined by the observations of author during author's site visit.

[G¹] is a gathering place in front of Tokalı Church where visitors read interpretive panels and wait for the church queues in crowded days. [G¹] is defined by entrance of Tokalı Church at east, rock blocks at north and south, and [VR] at west. [G¹] is equipped with interpretive panels. As being adjacent to [VR] at west, conflict between vehicular and pedestrian use occurs and such conflict creates safety problem.

[G²] is a gathering area where tour buses drop off their passengers. [G²] is defined by [VR] at north and east, rock blocks at south. [G²] is equipped with phone booth and large size trash bins. Moreover, there are trees and bushes in [G²]. This area is not designed for this purpose, so there is not any equipment or sign that make visitor understand that [G²] is a place where tour busses drop off their passengers.

[G³] is a gathering area where visitors buy ticket and enter GOAM and leave the museum after their museum visit. Moreover, visitors wait there and sit on the walls while waiting. [G³] is defined by ticket booth at north, museum shop at east, entrance tolls at south and rock blocks at west. [G³] is densely used area due to its use by visitors buying entrance

ticket and entering museum and visitor leaving museum at the same time and such dense use between visitors entering and leaving GOAM create complexity in use. Moreover, the area is not equipped with street furniture that fulfills the requirements of waiting and sitting.

[G⁴] is a place in front of Rahibeler Monastery. [G⁴] is defined by chained barriers at east and rock blocks at south; and by museum trail at north and west. In [G⁴], visitors read interpretive panels and tourist groups gather than tour guides introduce museum to group visitors. In that respect, this area is densely used by tourist groups. While [G⁴] is equipped with interpretive panels, [G⁴] is not equipped with necessary street furniture.

[G⁵] is a gathering area in front of Saint Barbara Church. [G⁵] is defined by rock blocks at north and natural terraces at west and south. In [G⁵], visitors read interpretive panels and wait for the church queues in crowded days. [G⁵] is equipped with interpretive panels and sitting units. Dense use of the area reduces visitor experiences and cause complexity of use while entering and leaving Saint Barbara Church in crowded days.

[G⁶] is a place in front of terrace of Rock Cut Refectory and Depots and near to Karanlık Church. [G⁶] is defined by rock blocks at east and south and not designed open areas at west. In [G⁶], visitors take photography of Cappadocia landscape due to area's visual values, read interpretive panels and wait for church queues in crowded days. While, [G⁶] is equipped with interpretive panels, there is not any other street furniture that people can sit on while waiting and taking photos of Cappadocia landscape.

[G⁷] is gathering area in front of Çarıklı Church. [G⁷] is defined by not designed open area at north, rock blocks at east and south. In [G⁷], visitors take photography of Cappadocia landscape because of looking through landscape at the southwest, read interpretive panels and wait for church queues in crowded days. [G⁷] is equipped with interpretive panels and sitting units, but sitting units are not placed by considering visual values of the area.

Open Areas of Commercial Buildings [O^x] are extensions of commercial buildings. There are two open areas of commercial buildings in GOAM. These open areas are [O¹] open area of commercial buildings located at the west of GOAM entrance and [O²] open area of Museum Shop. [O¹] is defined by [VR] at northeast and rock block at southwest and equipped with display cases for souvenirs. [O¹] is very near to entrance to display cases

create visual pollution at the entrance of GOAM. Besides visual pollution, proximity of [O¹] to the entrance creates complexity in use. [O²] is recessed open area of museum shop where is equipped with chairs and café tables and used as café. In [O²], GOAM is not experienced due to recessing on the ground.

In *Resting Areas [R^x]* are defined as part of the Open Areas in GOAM where visitors rest before, during and after their museum visit. There are four types of resting area equipped with movable and immovable sitting units.

[R¹] is resting area located at the west of [G²] gathering area. [R¹] is defined by natural terraces at north – west, [VR] at east and rock block at south. [R¹] is equipped with movable sitting units and viewing binocular. Despite the sitting units and viewing binocular, [R¹] is not used efficiently by museum visitors. [R²] is resting area between WC and fountain at the south of [G⁴]. [R²] is defined by stairs of WC at north, museum trail [MT] at east, fountain at south and height difference at west. [R²] is equipped with immovable park benches as sitting units. There are also trees in [R²] that create shade. The area is densely used by visitors who completed their museum visit and want to take a rest due to sitting units and its shaded environment.

[R³] is resting area arranged at the center of Göreme Open Air Museum in a circular form and adjacent to museum trail. [R³] is equipped with immovable sitting units, and it is densely used by visitors in crowded days.

[R⁴] is resting area located in front of Saint Barbara church. [R⁴] is defined by rock blocks at north, museum trail at east, open area that are not designed at south and [G⁵] at east. Visitors take a rest in [R⁴] while waiting for the church queues in busy days and take photography of landscape. [R⁴] covers smaller area comparing to other resting areas. Despite its small area, [R⁴] is densely used by visitors. [R⁴] is equipped with immovable sitting units.

Current Visitor Practices and Routes

As mentioned earlier, there are four modes of transportation that visitors use while approaching museum: by personal cars, by tour buses, by bicycle, and on foot. These four different transportation modes constitute five types of visitor practices and routes: practices of visitors coming with their own cars and park their cars in [CP²], practices of visitors coming with their own cars and park their cars in [CP¹], practices of visitors

coming with tour buses, practices of visitors coming by and finally practices of visitors coming on foot. These five types of visitor practices and routes show both similarities and differences. While “before the museum visit” and “after the museum visit” sections of five practices show differences, the last four practices are the same in “during the museum visit” section except the first one. In that respect, whole visitor practices of the first one – visitors coming with their own cars and park their cars in [CP²] –, and the second one – visitors coming with their own cars and park their cars in [CP¹] – consisting “before the museum visit”, “during the museum visit” and “after the museum visit” sections are mentioned in detail below. On the other hand, only “before the museum visit” and “after the museum visit” sections of the last three practices are mentioned due to their similarities between the second one.

Fee structure in GOAM should be specified before stating visitor practices in detail. Entrance to Göreme Open Air Museum is 15 TL both for Turkish Citizens and foreign tourists. Museum Card for Turkish Citizens can be bought at the entrance of the museum which costs 20 TL and provides entrance to all of the historic sites and museums owned by the government. Audio guide can be borrowed from the ticket booth for 5 TL. Visitors pay extra 8 TL in order to visit Karanlık Church at the entrance of the church. Moreover, visitors should pay extra 5 TL for parking of their own cars. In addition to the fee structure, there is a need to mention rules and regulations declared by GOAM Directorate in order to control visitor flow inside the museum before explaining visitor practices and routes in the museum. This is because; these rules and regulations are important features that constitute visitor practices and their durations inside the museum. According to regulations of the museum directorate, 30 visitors can stay inside the rock cut space for three minutes in order to reduce deterioration of rock cut spaces caused by dense visitor use. The reason behind the density in front of rock cut spaces is the result of this regulation. As a consequence of such focal density, gathering areas are defined in front of rock cut spaces by the author in respect to his observations during the site survey. In that respect, the museum visit lasts a minimum of one hour in not crowded days and extends up to four and a half hours in crowded days due to long waiting times in front of rock cut spaces.

Current Visitor Practices and Routes of whom Coming with their Own Cars/ 01

In this practice, visitors coming with their own cars from Göreme through the [VR] Vehicular Road Between Göreme and Ortahisar, park their car in [CP²] (Figure 100). Then,

they get off the car [1] and go ticket booth to buy entrance ticket for museum in [G³] [2]. These two steps – [1] and [2] – constitute “before the museum visit” section of the route. After buying entrance ticket, they pass through entrance tolls and read information panel about GOAM in [G⁴] [3]. Later, visitors visit Saint Basil Chapel, Elmalı Church and Saint Barbara Church. After that, visitors take photos of museum, rest and wait for the church queues in [R⁴] [4]. Next, visitors visit Yılanlı Church, Pantokrator Church and rock cut spaces, then in front of Karanlık Church, take photos of museum and wait for the queues of rock cut spaces in [G⁶] [5]. Afterwards, visitors visit Karanlık Church – if they pay extra fee for the entrance –, Chapel Church and go through Çarıklı Church. They wait for the queues in busy days in [G⁷] and visit Çarıklı Church [6]. These four steps – [3], [4], [5] and [6] – constitute “during the museum visit” section of the route. Finally, visitors shop and rest at Museum Shop and its open area [O²] [7], then walk to vehicular park [CP²] [8] and leave the museum. These last two steps – [7] and [8] – constitute “after the museum visit” section of the route.

Before the museum visit section is 60 meters long, during the museum visit section is 650 meters long and after the museum visit section is 60 meters long. This route is total 720 meters long and takes between 45 minutes and one hour in not crowded days and takes up to three hours in crowded days due to long waiting times in front of rock cut spaces.

Current Visitor Practices and Routes of whom Coming with Their Own Cars/ 02

Visitors coming with their own cars from Göreme through the [VR] Vehicular Road Between Göreme and Ortahisar, park their car in [CP¹] (Figure 101). Then, they get off the car and walk to ticket booth to buy entrance ticket for museum [1]. Afterwards, they buy entrance ticket from ticket booth and pass through [G³] and entrance tolls [2]. These two steps – [1] and [2] – constitute “before the museum visit” section of the route. Once visitor buy their entrance tickets, they follow the same route of previous practice until they leave the paid entrance of GOAM. After departing from paid entrance of GOAM, visitors stop by [O¹] and the stores located at the adjacent to the paid entrance and shop there [8]. Next, they use binoculars located at [R¹] and take photographs of landscape there [9]. Then, they go to Tokalı Church and wait for the church queue in [G¹] [10]. These steps constitute “during the museum visit” section of the route. Finally visitors go to stores located at [CP¹] vehicular park, shop there [11] and get in their cars and leave museum [12]. These last two steps – [11] and [12] – constitute “after the museum visit”

section of the route.

Before the museum visit section is 350 meters long, during the museum visit section is 750 meters long and after the museum visit section is 300 meters long. This route is total 1,3 kilometers long and takes between one hour and one and half hours in not crowded days and take up to three and half hours in crowded days due to long waiting times in front of rock cut spaces.

Current Visitor Practices and Routes of whom Coming with Tour Buses

Tour buses coming through [VR] Vehicular Road Between Göreme and Ortahisar, drop its passengers off in [G²] as shown in Figure 102. After dropping passengers off, tour bus go back to [CP¹] vehicular park and wait for the visitors there [1]. Visitors go through the entrance of GOAM, then stop by [O¹] and shop at the stores adjacent to entrance [2]. Then, visitors buy entrance ticket of museum from ticket booth in [G³] and pass through entrance tolls [3]. These three steps – [1], [2] and [3] – constitute “before the museum visit” section of the route. Afterwards, tourist groups gather in [G⁴] and museum is introduced to visitors by tour guides [4]. Beginning from the step [5] to step [10], “during the museum visit” section of the route is same with **Current Visitor Practices and Routes of whom Coming with Their Own Cars/ 02**. Finally visitors go to stores located at [CP¹] vehicular park, shop there [11] and get in their tour buses and leave museum [12]. These last two steps – [11] and [12] – constitute “after the museum visit” section of the route.

Before the museum visit section is 50 meters long, during the museum visit section is 750 meters long and after the museum visit section is 300 meters long. This route is total 1,1 kilometers long and takes between one hour and one and half hours in not crowded days and take up to three and half hours in crowded days due to long waiting times in front of rock cut spaces.

Current Visitor Practices and Routes of Whom Coming by Bike

Visitors coming by bike from Göreme by following [VR] Vehicular Road Between Göreme and Ortahisar park their bikes in [CP¹] [1] (Figure 103). Then, visitors go through the entrance of GOAM, then stop by [O¹] and shop at the stores adjacent to entrance [2]. Then, visitors buy entrance ticket of museum from ticket booth in [G³] and pass through entrance tolls [3]. These three steps – [1], [2] and [3] – constitute “before the museum visit” section of the route. Beginning from the step [4] to step [10], “during the museum

visit” section of the route is same with **Current Visitor Practices and Routes of whom Coming with Their Own Cars/ 02**. In the final section which is “after the museum visit”, visitors go to stores located at **[CP¹]** vehicular park, shop there [11], then take their bikes and ride to Göreme [12].

Before the museum visit section is 350 meters long, during the museum visit section is 750 meters long and after the museum visit section is 300 meters long. This route is total 1,3 kilometers long and takes between one hour and one and half hours in not crowded days and take up to three and half hours in crowded days due to long waiting times in front of rock cut spaces.

Current Visitor Practices and Routes of Whom Coming With on Foot

Visitors walk from Göreme by following **[VR]** Vehicular Road Between Göreme and Ortahisar to GOAM [1] (Figure 104). Visitors stop by **[O¹]** and stores located adjacent to entrance of GOAM [2], then buy entrance ticket of museum from ticket booth located in **[G³]** [3]. These three steps – [1], [2] and [3] – constitute “before the museum visit” section of the route. Beginning from the step [4] to step [10], “during the museum visit” section of the route is same with **Current Visitor Practices and Routes of whom Coming with Their Own Cars/ 02**. Finally visitors go to stores located at **[CP¹]** vehicular park, shop there [11], then leave museum and walk to Göreme [12]. These last two steps – [11] and [12] – constitute “after the museum visit” section of the route.

Despite the other practices that start from **[CP¹]** or **[CP²]** Vehicular Park, this visitor route starts in Göreme town center. The reason is that walk starts in Göreme town center in this case. So that, before the museum visit section of this practice is longer comparing to other practices. Before the museum visit section is 1,5 kilometers long, during the museum visit section is 750 meters long and after the museum visit section is 1,5 kilometers long. This route is total 3,75 kilometers long and takes between two hours and two and half hours in not crowded days and take up to four and half hours in crowded days due to long waiting times in front of rock cut spaces.

Juxtaposition of Visitor Practices and Routes

Visitors, who are coming with their own cars and park to **[CP¹]**, by bikes and tour buses, walk from **[CP¹]** Vehicular Park to museum entrance (Figure 105). Visitors coming with their own cars and park to **[CP²]** and visitors coming with tour buses do not walk that

much distance.

In front of museum entrance, juxtaposition of vehicular and dense pedestrian use is observed. Moreover, visitors entering and leaving museum from the same gate creates complexity at entrance and exit. All of the visitors using different routes use same **[MT]** Museum Trail.

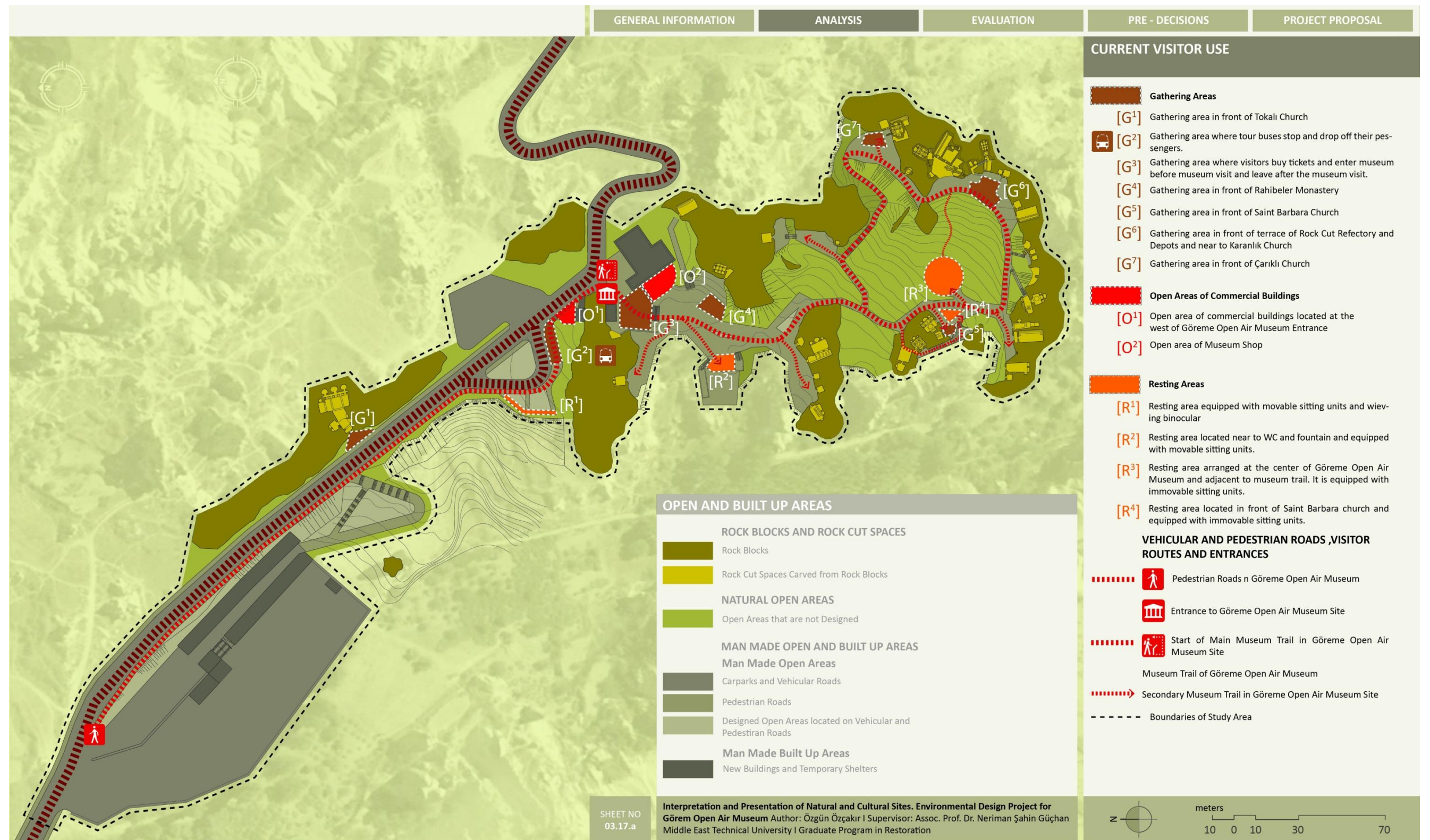
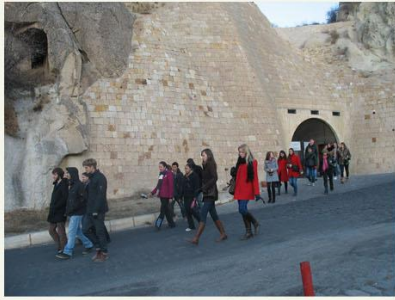


Figure 96 Current Visitor Use in GOAM

GATHERING AREAS



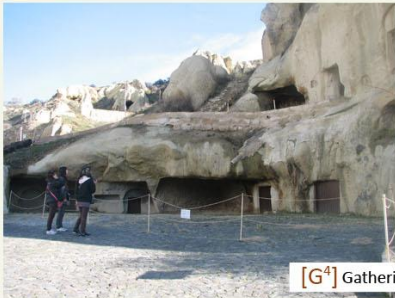
[G¹] Gathering area in front of Tokalı Church



[G²] Gathering area where tour buses stop and drop off their passengers.



[G³] Gathering area where visitors buy tickets and enter museum



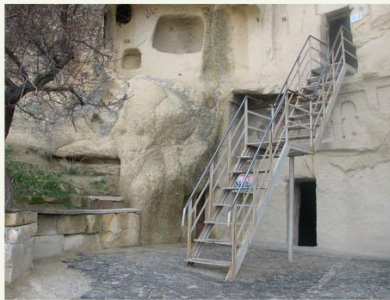
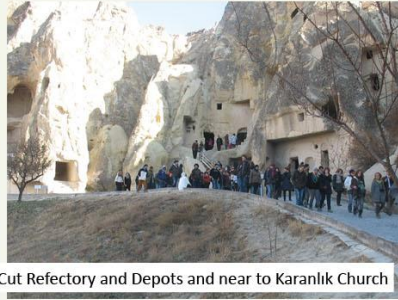
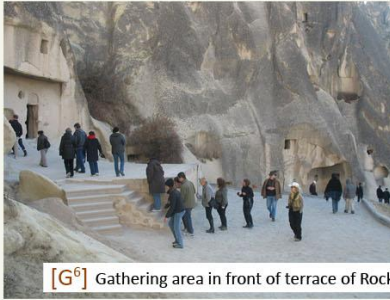
[G⁴] Gathering area where visitors buy tickets and enter museum

CURRENT VISITOR USES, PRACTICES AND ROUTES

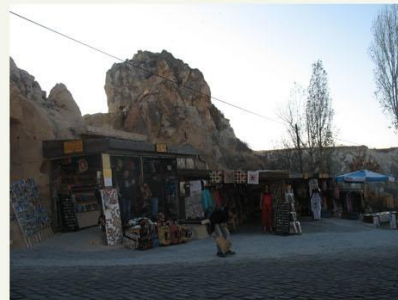
GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.17.b	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 97 Photographs of Areas Having Various Uses / 1

GATHERING AREAS - cont.



OPEN AREAS OF COMMERCIAL BUILDINGS



CURRENT VISITOR USES, PRACTICES AND ROUTES

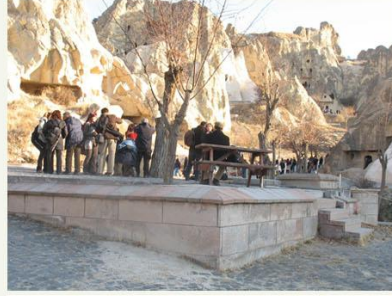
GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.17.c	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır I Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University I Graduate Program in Restoration			

Figure 98 Photographs of Areas Having Various Uses / 2

RESTING AREAS



[R¹] Resting area equipped with movable sitting units and viewing binocular



[R²] Resting area located near to WC and fountain and equipped with movable sitting units.



[R³] Resting area arranged at the center of Göreme Open Air Museum and adjacent to museum trail. It is equipped with immovable sitting units.



[R⁴] Resting area located in front of Saint Barbara church and equipped with immovable sitting units.

CURRENT VISITOR USES, PRACTICES AND ROUTES

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 03.17.d	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır I Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University I Graduate Program in Restoration			

Figure 99 Photographs of Areas Having Various Uses / 3

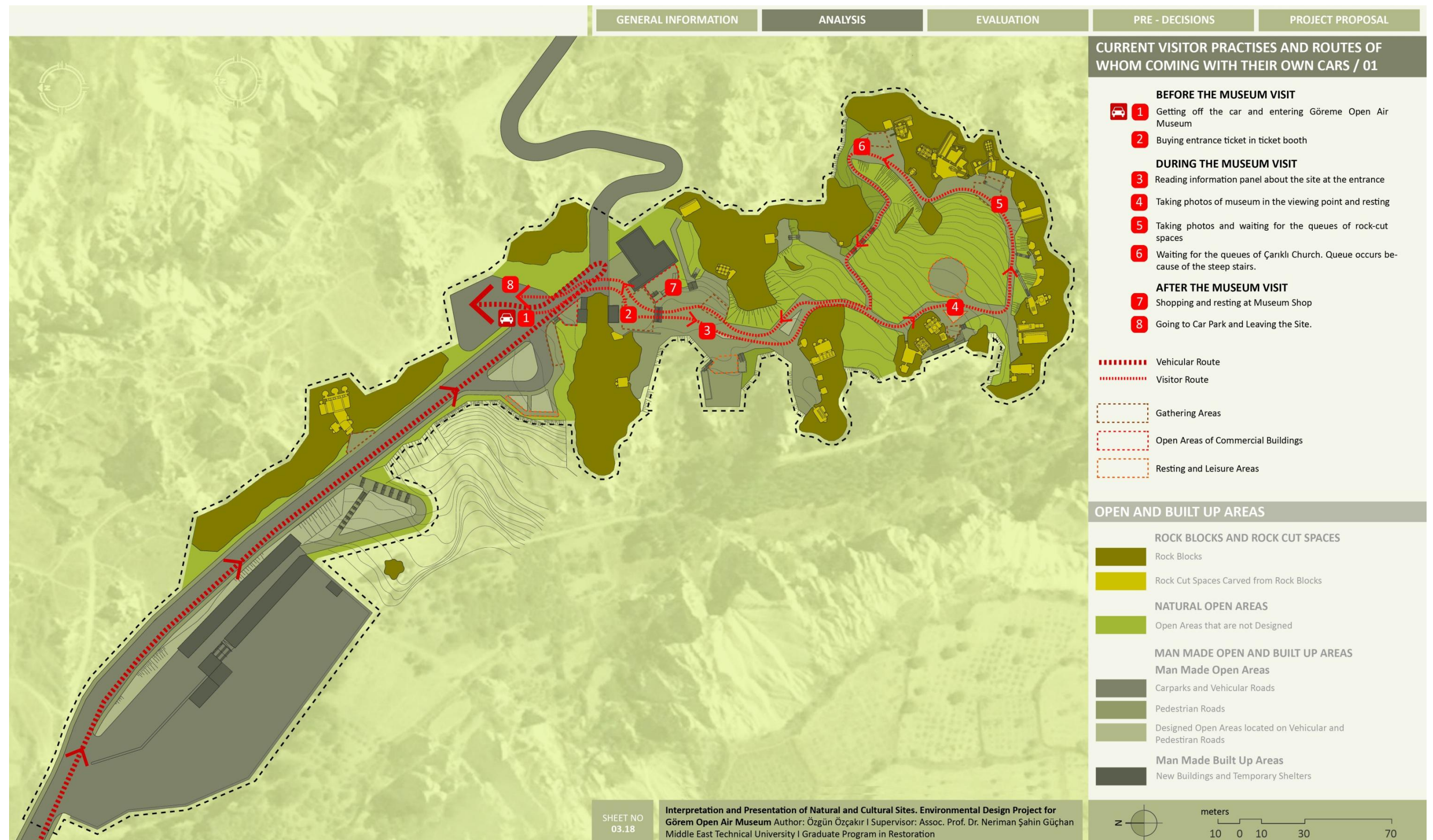


Figure 100 Current Visitor Practices and Routes of Whom Coming With Their Own Cars / 01

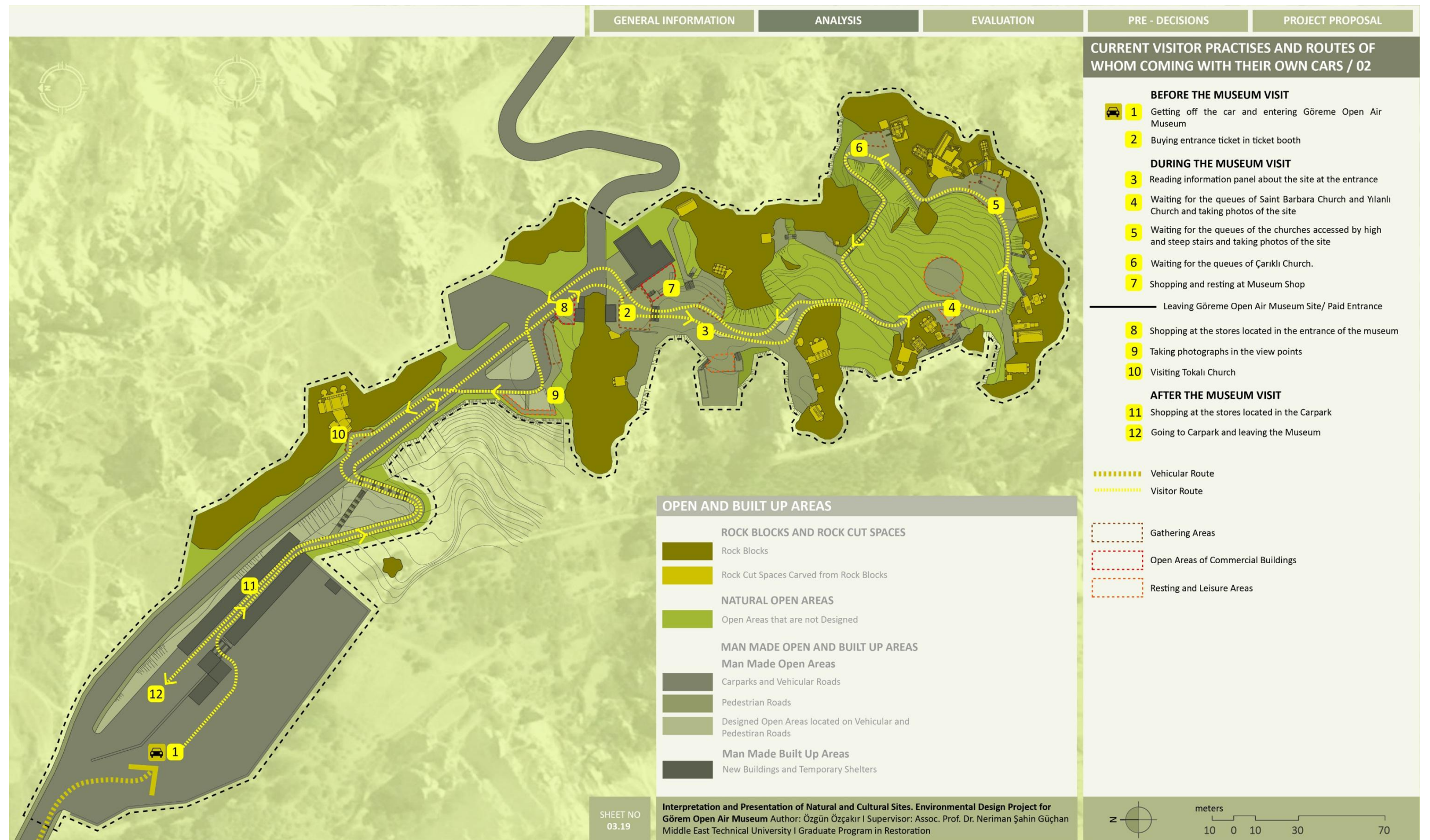


Figure 101 Current Visitor Practices and Routes of Whom Coming With Their Own Cars / 02

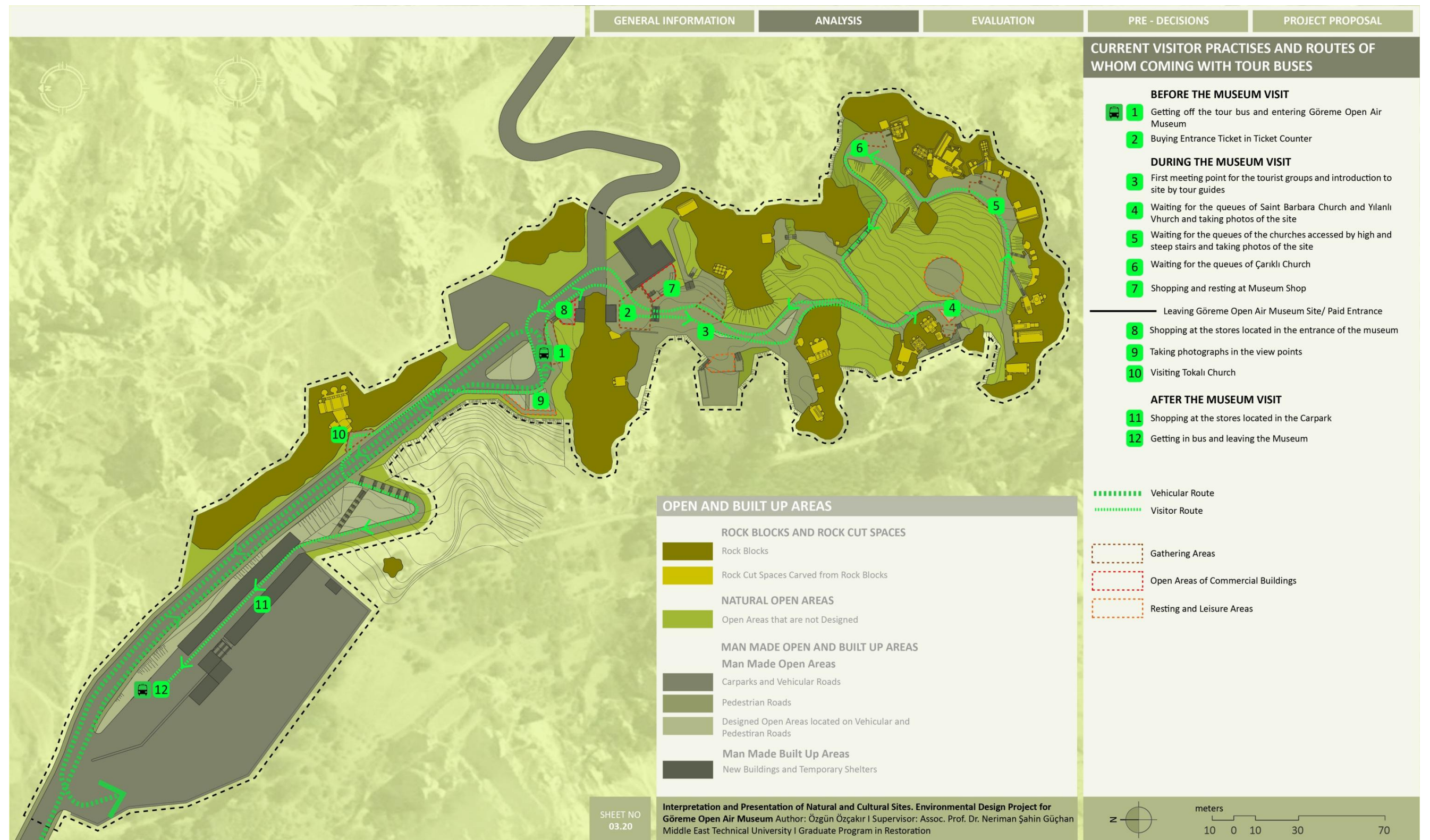


Figure 102 Current Visitor Practices and Routes of Whom Coming With Tour Buses

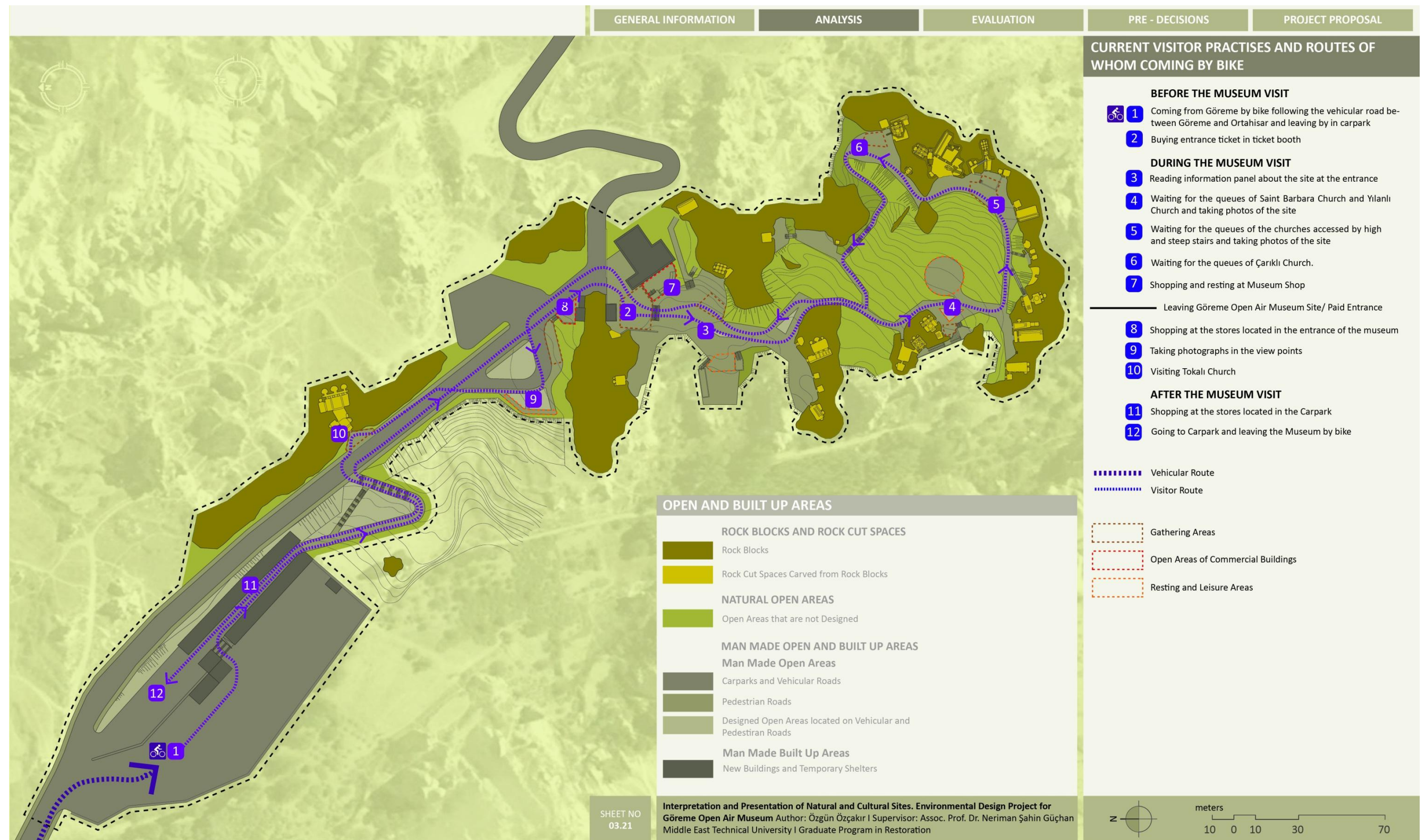


Figure 103 Current Visitor Practices and Routes of Whom Coming By Bike

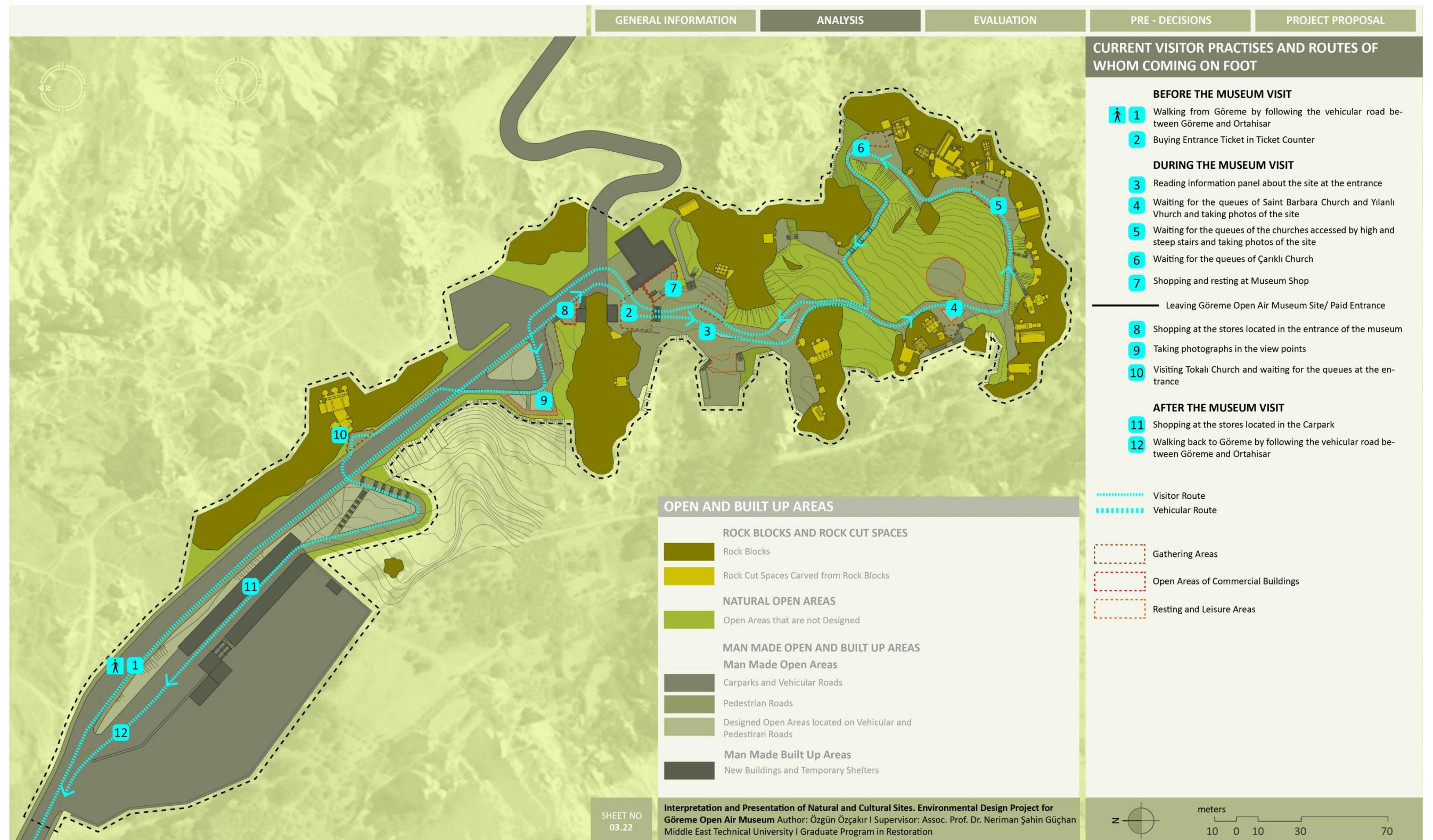


Figure 104 Current Visitor Practices and Routes of Whom Coming On Foot

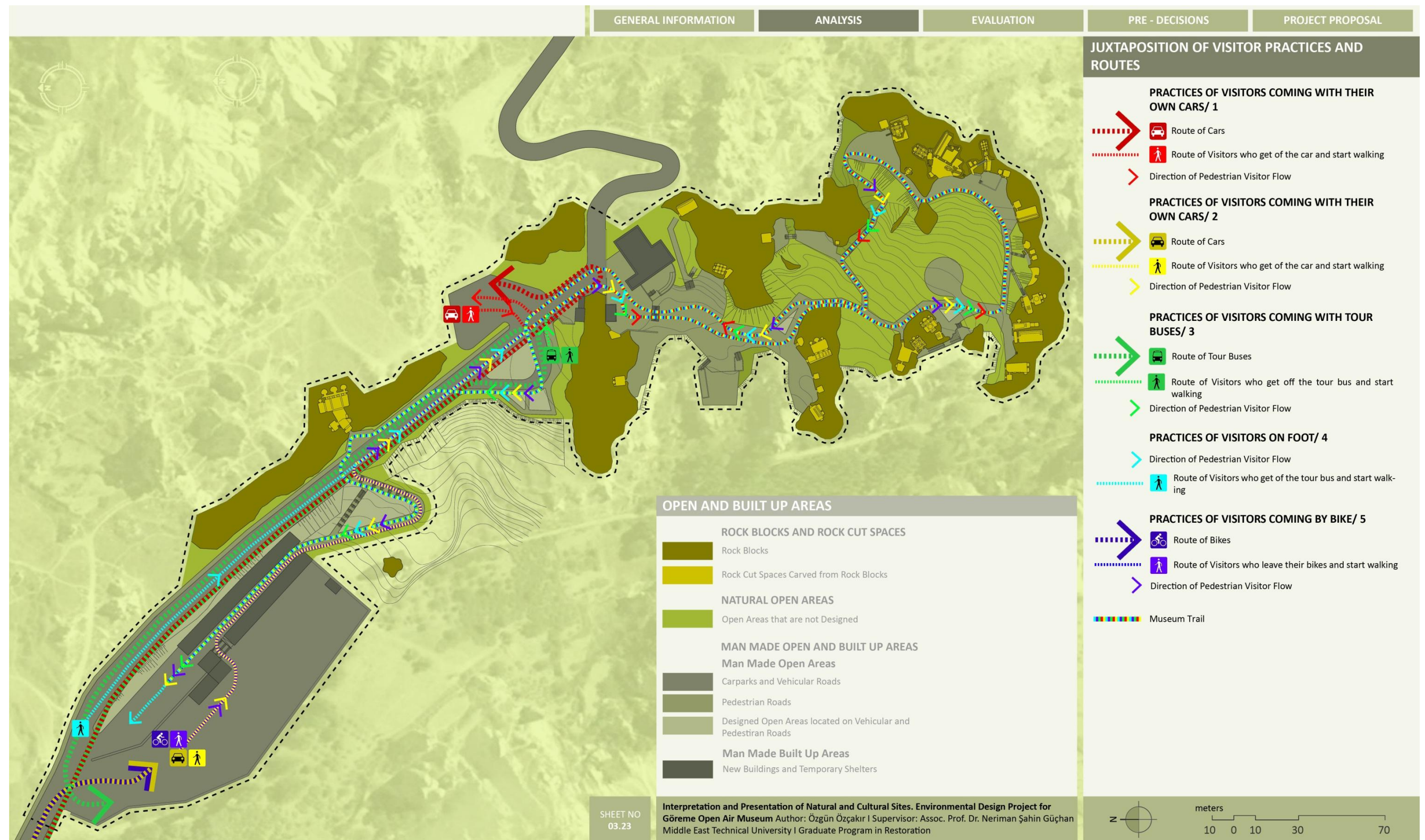


Figure 105 Juxtaposition of Visitor Practices and Routes

3.4.6. MANAGEMENT, SECURITY AND MONITORING

Management of Göreme Open Air Museum is under control of Museum Chief who is responsible to Directorate of Nevşehir Museum. Directorate of Nevşehir Museum is under the control of Nevşehir Governorship in regional scale and Ministry of Forestry and Water Works due to being in the boundaries Göreme National Park; Ministry of Culture and Tourism because of being in the boundaries of archaeological sites; and finally Ministry of Environment and Urbanism due to being in the boundaries of natural sites in national scale (Table 18).

Only financial source of GOAM is Ministry of Culture and Tourism. Despite being one of the most visited open air museums in Turkey, the money transferred to museum is from Ministry of Culture of Tourism is not sufficient as mentioned by the head of Nevşehir Regional Council for Conservation of Cultural Entities Mr. Mevlüt Çoşkun. Maintenance, and repair in GOAM are conducted with this source.

Visitor facilities and security services are offered by both government officers and private enterprises under the control of Directorate of Nevşehir Museum in GOAM (Table 18). The museum shop which is located inside the paid entrance of GOAM is administrated by *Bilkent Kültür Girişimi*. Besides museum shop, there are privately owned commercial units outside the paid entrance of GOAM. Moreover, Audio Guide is offered by Tura Turizm in Göreme Open Air Museum. Entrance tickets of GOAM and Karanlık Church are sold by two museum officer at the ticket booth located at the entrance of the museum and one museum officer at the entrance of Karanlık Church.

Security and control in GOAM is offered by military officers, church guides and private security staff. Military officers are responsible for providing security outside the paid entrance of GOAM. On the contrary, two private security staffs are responsible for the security inside the paid entrance of GOAM during the visitation hours of the museum. In addition to private security staff, there are eight church guards who are officers of Nevşehir Museum Directorate and working under Office for Revolving Funds of Ministry of Culture of Tourism.¹¹⁸ Eight church guards are responsible for [01] Tokalı Church, [04] Saint Basil Chapel, [05] Elmalı Church, [06] Saint Barbara Church, [09] Yılanlı Church, [10] Pantokrator Church, [17] Karanlık Church, and [19] Çarıklı Church.

¹¹⁸ "Office for Revolving Funds of Ministry of Culture of Tourism" is stated as "Kültür ve Turizm Bakanlığı Döner Sermaye İşletme Müdürlüğü" in Turkish

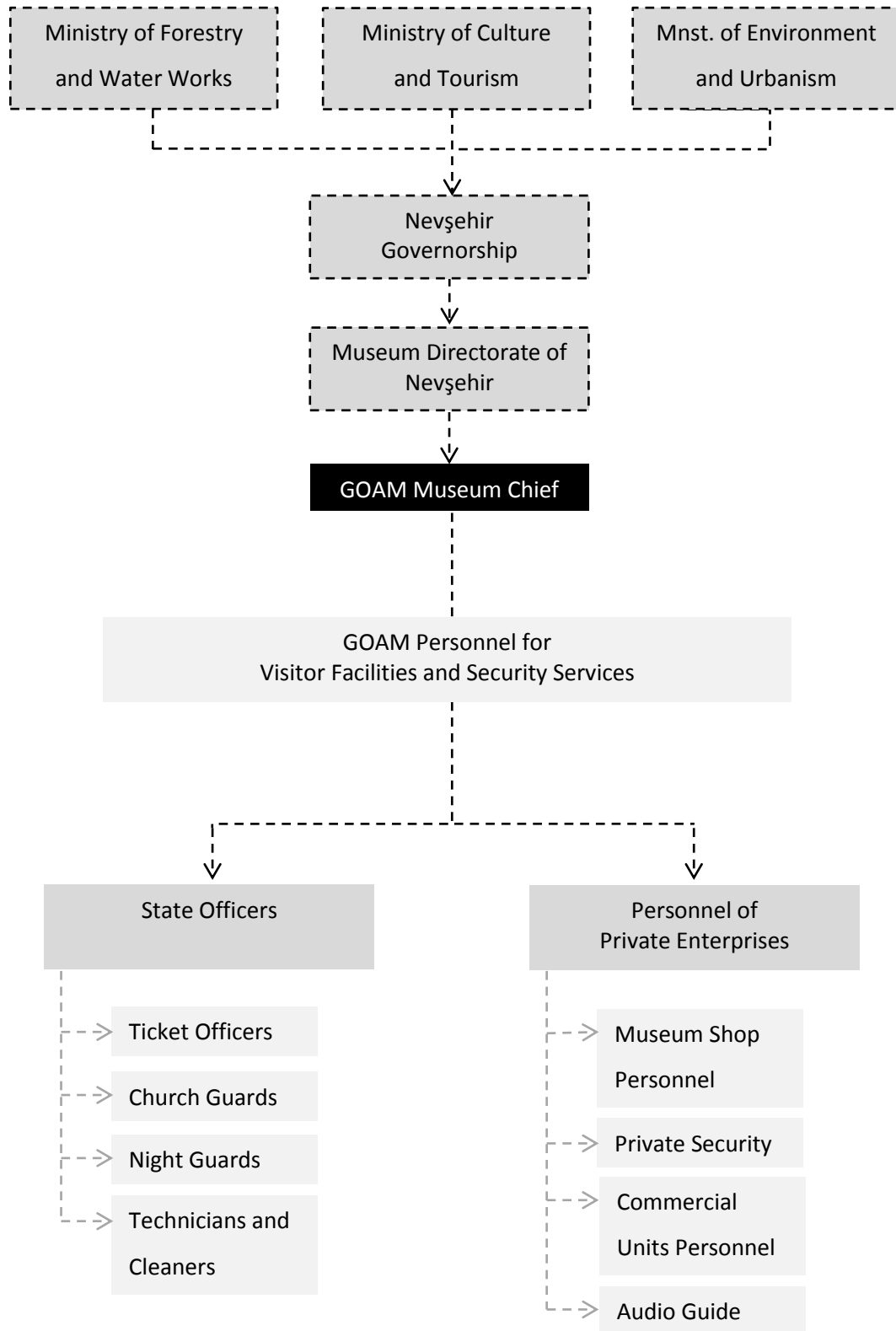
Church guards are responsible for the control of visitors inside rock cut spaces by allowing 30 visitors stay in each rock cut space at the same time and each visitor stay maximum three minutes. Moreover, church guards warn visitors if they take photographs and touch the wall painting in rock cut spaces in order to reduce decay caused by visitor use. While some of the visitors – especially Turkish visitors and tour guides – do not obey the museum rules, there is not any major security problem in GOAM according to church guides. Church guards mention that visitors ask questions about the churches and their architectural features to have information about the museum during their visit due to the lack of interpretive activities in GOAM.

Church guides start working at eight o'clock in the morning by the opening of museum to the evening at seven o'clock by closing the museum in seven days of week. As they said in the interview conducted by author during his site survey, working conditions is not good enough because of long hour of work. When the museum is closed to public visit, two security guards who are officers of Nevşehir Museum Directorate and working under Office for Revolving Funds of Ministry of Culture of Tourism are responsible for the security of GOAM at night. Besides security guards, technician and cleaners who are officers of Nevşehir Museum Directorate are employed in order to provide maintenance and cleaning of the museum.

Despite the guided tours are provided by freelance tour guides, there is not any official guiding activity in GOAM. So that, visitors ask questions to church guides about museum. Church guides are responsible for the protection of the rock cut spaces.

There is not any official monitoring activity in GOAM. Visitors' ideas and their requests are not collected after their museum visit. Facilities in GOAM are not updated.

Table 18 Current Administrative Structure of GOAM



CHAPTER 4

EVALUATION OF CURRENT STATE OF GÖREME OPEN AIR MUSEUM (GOAM)

In this part of this thesis, evaluations regarding general characteristics and existing situation of Göreme Open Air Museum is presented in order to constitute a base for decisions in presentation and interpretation of the site and preparation for GOAM Environmental Design Project.

“Evaluation of Current State of Göreme Open Air Museum” is prepared by giving references to analyses regarding “General Characteristics and Existing Situation of Göreme Open Air Museum” presented in Chapter 3.4. General Characteristics of GOAM. In that respect, same titles and elements which are indicated and explained in “Current State of Göreme Open Air Museum” are re-evaluated and all of these titles and elements classified as **Values**, **Problems** and **Potentials** in this chapter. Then, **Values**, **Problems** and **Potentials** of Göreme Open Air Museum are presented in the separate sheets concerning each evaluation with their definitions below. While single sheet is prepared to present values and potentials of the site, three sheets are prepared in order to present problems of GOAM. In each sub chapter, content of these sheets is mentioned.

4.1. VALUES

Göreme valley and its surroundings consist of rock-cut spaces that represent significance of Byzantine art in the post-Iconoclastic era in a remarkable landscape completely formed by the erosion throughout the centuries. Rock cut spaces such as dwellings, religious spaces, and underground towns are the remnants of a traditional human life dating back to the 4th century.¹¹⁹

¹¹⁹ Göreme National Park and the Rock Sites of Cappadocia - UNESCO World Heritage Centre. (n.d.). UNESCO World Heritage Centre. Retrieved September 3, 2012, from <http://whc.unesco.org/en/list/357/>

The rock-cut spaces and the eroded landforms combine to produce a mixed cultural and natural landscape of unusual appearance in Göreme. These historical and natural features of GOAM and their interrelationship between each other are the elements that constitute remarkable landscape of the site.

Natural and cultural values of GOAM are listed as **Natural Boundaries** such as valleys and rock blocks that define limits of GOAM in natural ways, **Rock Block Formations** produced by the weather conditions such as wind/ rain and geological features such as lava from volcanoes, **Natural Open Areas** and **Natural Landscape Elements** that contribute the landscape of Cappadocia and provide diversity in open areas. **Rock Cut Spaces** such as churches and refectories carved from rock blocks that show the workmanship of human lived there, and **[WP¹] Viewing points looking towards landscape not having any manmade elements** (Figure 106) that represent visual values of the landscape. The values of each element mentioned above are defined in detail below.

Values regarding “Natural Boundaries”

Natural Boundaries of study area are southern boundary where continuation of rock blocks are observed, south western boundary which green valley defines, and the eastern boundary defined by rock block in which Tokalı Church is located. Natural boundaries of the study area are considered as value, this is because they define open areas in natural ways and any other artificial/ manmade element is not needed to form boundaries. Moreover, natural boundaries of GOAM has strategic importance in the history due to protecting Christians that are escaping from Arab attacks throughout the history as creating isolated and introverted spaces. In that respect, natural boundaries have also historical values.

Values regarding “Natural Environment and Natural Landscape Elements”

Rock block formations, which had started 10 million years ago, have significant characteristics and they are important due to forming remarkable landscape of Cappadocia. So, being formed throughout the centuries by volcanic activities and natural erosion, formation of rock blocks are considered as natural values of GOAM. Cappadocia is located in Hasan Dağ and Erciyes Dağ volcanic region. Lava flows of Hasan Dağ and Erciyes Dağ formed a layer of tufa on the plateaus. Hardness and thickness of tufa shows variety. Plateaus, having been essentially shaped with the lava from the volcanoes, were

continuously shaped with the eruptions of other volcanoes throughout the centuries. Then, wind, climate, rain, and rivers are the types of erosion that gave Cappadocia its characteristic formations. The Cappadocian climate, with sharp changes of temperature, heavy rains, and melting snow in the spring, plays an important role in the formation of the Cappadocian landscape. These erosional land forms of Cappadocia are in variety of shapes: cones, columns, towers, pyramids, obelisks, fairy chimneys and needles. They reach to heights of thirty to forty meters in some cases, but in Göreme Open Air Museum, they reach to twenty meters high. External forces such as wind, rain and rivers also formed valleys such as Zelve and Göreme. Göreme Open Air Museum is part of these valley formations.

As mentioned above, valleys are also formed as a result of erosion of tuffs and Göreme Open Air Museum is one of these valleys. These valleys are defined by the “**Continuity of Rock Blocks**” in GOAM and continuation is observed in south and east of Göreme Valley. In that respect, continuity of rock blocks is considered as values due to creating a defined space.

Natural open areas, are values due to being part of significant landscape of Cappadocia. Besides natural open areas, “**natural landscape elements**” as deciduous trees, evergreen trees and bushes which are an integral part of natural open areas are considered as values because of creating shaded environments. As a result, positive contribution of these elements to the open areas is observed.

Values regarding “Rock Cut Spaces”

Rock Cut Spaces in Göreme Open Air Museum – which are churches, monasteries, chapels, refectories and depots – have both natural and cultural values. This is because; they are carved by people from rock blocks which are formed by natural forces throughout the centuries. Besides rock cut spaces natural and cultural values, rock cut spaces have historic and artistic values due to being dated back to 10th and 12th century and decorated with wall paintings having different colors and techniques. Rock cut spaces are divided into two groups regarding their values mentioned above. First type is **Non-religious Rock Cut Spaces** which are refectory, depots and unnamed rock cut spaces and the second types is **Religious Rock Cut Spaces** which are churches, chapels and monasteries. Such variety in types of rock cut spaces is also value for GOAM, due to creating architectural richness in open air museum. **Non-Religious Rock Cut Spaces** are

mostly simple rectangular prism spaces and there are no wall paintings on the walls of these spaces. On the other hand, there are rock cut dining table in some of the kitchens and niches on the wall. These architectural elements enrich the spaces and they are defined as values in that respect. On the contrary to Non-Religious Rock Cut Spaces, **Religious Rock Cut Spaces** are complex spaces composed of nave, narthex and apse sections. Moreover, there are many architectural elements such as arches, niches, burial niches in these spaces. In that respect, carving to these spaces from rock blocks needs more workmanship. All of the Religious Rock Cut Spaces are painted with wall paintings with different geometric and figurative forms in different techniques and colors. So, they have also artistic values comparing to non-religious rock cut spaces.

Despite the fact that all the rock cut spaces are defined as valuable, **Religious Rock Cut Spaces** are considered as much more valuable comparing to non-religious ones for all these reasons.

Values regarding “Viewing Points and Areas”

[WP¹] Viewing points and areas looking towards landscape not having any manmade elements (vehicular parks, new buildings etc.) is considered as value. This is because; these viewing points and areas are the places that GOAM is experienced best. Moreover, remarkable landscape of Cappadocia is viewed finest in these areas in the boundaries of GOAM.

Values Regarding “Management, Security and Monitoring”

Church guides are employed for each rock cut spaces in order to protect them. Such strict control is valuable due to ensuring safeguarding of the rock cut spaces.

4.2. PROBLEMS

Problems of Göreme Open Air Museum can be defined under eleven titles. These titles are **Manmade Boundaries; Access, Parking Areas and Pedestrian Roads; Pavement and/or Material of Pedestrian Roads, Visitor Routes and Vehicular Roads; Manmade Landscape and Presentation Elements; New Buildings and Temporary Shelters; Accessibility; Structural Condition; Current Visitor Practices and Routes; Visitor Density and Use**. These titles are explained below and presented in sheets concerning each evaluation.

Problems regarding “Manmade Boundaries”

There are two types of **Manmade Boundaries** considered as problems in GOAM: **Boundaries Defined by Chained Barriers** and **Northern Boundary of Study Area** (Figure 107).

By the use of Chained Barriers throughout the museum trail in GOAM, artificial boundary is created. Besides the artificial boundary, the design and material of the chained barriers are poor and they create visual pollution. Location of chained barriers is also problematic, because chained barriers are also located already defined areas by natural elements such as rock blocks in some areas. For all these reasons, **Boundaries Defined by Chained Barriers** are problematic. Besides this, **Northern Boundary of Study Area** is also problematic. While, southern, southwestern and eastern boundaries of study area is defined by the natural elements such rock blocks and valley, northern boundary of study area is not defined by natural elements. On the other hand, it is defined by the retaining walls of vehicular park and vehicular road between Göreme and Ortahisar. So that, northern boundary of study area is an artificial boundary and problematic in GOAM.

Problems regarding “Access, Parking and Pedestrian Roads”

Vehicular Road Between Göreme and Ortahisar [VR] causes heavy vehicular traffic in densely used pedestrian area. This situation creates safety problems. Moreover, as mentioned in the conservation council decisions, vibrations created by vehicles damages rock blocks adjacent to the roads (Figure 107).

Besides Vehicular Road Between Göreme and Ortahisar, **Parking Areas** create various problems according to their size and location. This is because, they damage topography on which they are located on, create security problems for pedestrians due to vehicular traffic and result visual pollution in landscape.

[CP¹] Parking Area located on the road from Göreme to Ortahisar and at the north of the Göreme Open Air Museum causes irreversible destruction of landscape on which it is located on. Also, parking area creates visual pollution in natural landscape. Moreover, there is not any interpretive activity or building on the route from [CP¹] to [MT]. Besides lack of buildings and interpretive activities, the slope of the road between [CP¹] and [MT] creates difficulties in arriving museum. So that, visitors do not prefer to walk from [CP¹]

to [MT] and getting as near as possible to museum by their cars and tour buses (Figure 00).

[CP²] Parking Area located on the road from Göreme to Ortahisar and at the east of the Göreme Open Air Museum Entrance creates same problems with [CP¹]. Moreover, [CP²] differs from [CP¹] by being located at the very near to the entrance of the museum. In the area between [CP²] and entrance of museum, conflict in the pedestrian and vehicular use occurs. This situation results safety problems for pedestrians and museum visitors.

Pedestrian Roads in Göreme Open Air Museum Site is problematic due to difficulty in access and reserving very limited area for pedestrians.

There are steep stairs on **[PR¹] Pedestrian Road** that connects [CP¹] parking area to [PR²] pedestrian road and [VR] vehicular road between Göreme and Ortahisar. **[PR¹] Pedestrian Road** is problematic due to its difficulty in access.

[PR²] Pedestrian Road is sidewalk adjacent to [VR] is problematic due to reserving very narrow area for pedestrians.

Problems regarding “Pavement and/or Material of Pedestrian Roads, Visitor Routes and Vehicular Roads”

While several interventions are done in order to improve the pavement and materials of visitor routes on different dates as mentioned in “3.3.2. *Studies Approved by Council for Conservation of Natural and Cultural Entities*” chapter of the thesis, all of these interventions are not done in complementary manner in GOAM. This non-complementary approach creates problems in overall pavement design. Besides their incomprehensive design, each pavement and material has its specific problems.

Large Size and Rough Yellow Colored Cut Stone Pavements and **Cut Stone Pavements** on pedestrian roads obstruct experiencing authentic ground flooring. **Cobblestones** are not designed regarding site’s specific needs and generic/ standard pavement stone is used. This generic approach is problematic. While **Small Size and Rough Cut Stone Pavements** used throughout the museum trail are good at their function and durability, they are problematic due to their poor workmanship. Moreover, uneven surfaces of the pavement cause difficulties for wheelchair users. **Metal Stairs** that provide access to churches located at the higher levels, create safety danger for visitors because of being

narrow and visual pollution. **Asphalt** as a covering material on the main vehicular road allows vehicles driving with high speed. High speed vehicular traffic causes danger for pedestrians. While, **Large Size and Rough Cut Stone Pavements** are useful due to not allowing vehicles having high speed; they are problematic due to causing difficulties for wheelchair users because of uneven surface.

Problems regarding “Manmade Landscape and Presentation Elements”

In GOAM, “Manmade Landscape and Presentation Elements” which are information, presentation and advertisement panels, sitting units, trash bins, traffic signs, phone booth and fountain, are not designed in comprehensive manner. Moreover, locations and materials of some of these elements are also problematic. All these problems are detailed below by giving references to each element.

As mentioned above, **Information, Presentation and Advertisement Panels** are not designed in comprehensive manner in GOAM. This non-comprehensive approach is problematic in overall panel design. Besides their non-comprehensive design, each **Information, Presentation and Advertisement Panels** has its specific problems. These specific problems are listed below.

[P^{WH}] Panel Regarding to Göreme Open Air Museum’s World Heritage Status is not designed regarding site’s specific needs and located by the regulations of Ministry of Culture and Tourism to all World Heritage Sites in Turkey. This generic approach is problematic.

[P^{MS}] Panels that are placed by Museum Shop are huge sized. Moreover, there is variety of material and color in **[P^{MS}]**. In that respect, **[P^{MS}]** create visual pollution. Their sizes, materials and colors create problems.

There is not unity in the design and material of the **Panels that are placed by Museum Directorate [P^{MD}]**. So that, **[P^{MD}]** are problematic.

While content of the **Interpretive Panels [P^{IP}]** are sufficient and location of interpretation panels are appropriate; the design and detailing of the interpretation panels are not sufficient in terms of both material and workmanship. **[P^{IP}]** are made of durable material and montage detail of **[P^{IP}]** to ground is not designed, so that some of the steel pipes do not stand straight.

While design of **Panels for Audio Guides [P^{AG}]** is sufficient, their locations are problematic. They are either screwed on the facades of rock blocks or hanged on chained barriers. Screws damage the rock blocks and hanging detail of panels to chained barriers is not designed.

Advertisement Panels and Panels for Carpark Fees [P^{AP}] are huge sized. Besides their huge sizes, design and colors of panels also create visual pollution. Moreover, the panels are not constructed with durable materials as they are made of metal sheets.

Besides Information, Presentation and Advertisement Panels; **Sitting Units, Trash Bins, Traffic Signs**, and **Phone Booths**, and **Fountain** in GOAM are evaluated and their problems are identified below.

There are three types of **Sitting Units** in GOAM: **[SU^M] Movable Sitting Units for Multiple Users**, **[SU^C] Movable Chairs** and **[SU^R] Immovable Row Sitting Units for Multiple Users**. First two, which are **[SU^M] Movable Sitting Units for Multiple Users** and **[SU^C] Movable Chairs**, are not designed regarding site's specific needs and generic/ standard sitting units such as park benches and chairs are used. Moreover, **Movable Sitting Units for Multiple Users** are placed arbitrarily, so their locations are problematic. The last one, **[SU^R] Immovable Row Sitting Units for Multiple Users** are not designed with durable materials. Moreover, the areas where immovable sitting units are placed – circular arrangement in front of Azize Barbara Church and row arrangement near Çarıklı Church – are not designed by considering whole site.

There are two types of trash bins in GOAM: **[TB^S] Small Size Trash Bins** and **[TB^L] Large Size Trash Bin**. The former, **[TB^S]** is made of terracotta, so they do not resist harsh outdoor conditions of region. Locations of the trash bins are also arbitrary. Huge size of **[TB^L] Large Size Trash Bin** is problematic. Besides its huge size, the need for such huge trash bin in museum is questionable. **[TB^L]** is made of steel and visually inharmonious due its huge size and material.

Traffic Signs located by General Directorate of Highways [TS] are not designed regarding site's specific needs and generic/ standard signs are used. These generic signs are huge sized and especially located at the paid entrance of Göreme Open Air Museum. In that respect, their locations are problematic.

Phone Booth [PB] is not designed regarding site's context and generic/ standard phone booth is used. This generic approach is problematic. Moreover, location of phone booth is questionable because it is not placed in clearly observed area. Phone booth is not effectively used due to its location.

Location of **[F] Fountain** is problematic due to not being clearly observed from museum trail and having very narrow area in front of it. So, the fountain is not efficiently used in GOAM.

Problems Regarding "New Buildings and Temporary Shelters"

New Buildings and Temporary Shelters create problems because of demolishing the natural landscape on which they are located on. Moreover, these new buildings and temporary shelters are not designed with complementary approach. Besides not being designed with contemporary approach, they cause visual pollution in natural landscape due to their various materials and colors.

Problems Regarding "Accessibility"

Accessibility of open areas in Göreme Open Air Museum is problematic due to slope and pavement of open areas and stairs located throughout the road (Figure 108). Whether the slope is moderate or high, slope creates problems for visitors having walking disabilities. Not only high slope, but also stairs and height differences block wheelchair access. Besides slope, stairs and height differences; pavement of open areas creates problems because of its uneven surface. Such uneven surfaces create problems for wheelchairs.

Besides open areas, built areas are not also well accessible. Especially access to rock cut spaces is problematic in terms of stairs and level differences in front of these spaces. Rock cut spaces located at the south of museum are accessed via high and steep stairs. These steep stairs create problems not only for wheelchair users, but also safety problems for all visitors.

Problems Regarding "Structural Condition"

Structural problems are observed in some of the rock cut spaces. These structural problems will extend if precautions are not taken into account (Figure 108).

Problems Regarding “Visitor Density”

Despite the fact that museum directorate developed strategy on visiting capacity and visiting duration of rock cut spaces, comprehensive visitor management strategy is not proposed for whole site. Lack of such comprehensive “Visitor Management Plan” causes long waiting times and accumulations of visitors in museum. Long waiting times and accumulations lead to uncontrolled visitor density and this situation obstruct visitor experiences in GOAM (Figure 109).

Problems Regarding “Use of Open Areas”

Problem of **“Use of Open Areas”** in open areas is emerged due to non-complementary and non-comprehensive planning of open areas and lack of visitor management. As a result, focal areas such as gathering areas and resting areas which are defined in detail below are emerged inside the paid entrance of museum. Outside the paid entrance of museum, conflict in pedestrian and vehicular uses is emerged. Such focal areas and conflicts in pedestrian and vehicular access reduce visitors’ experiences during their site visit. Specific problems regarding focal areas – gathering areas, open areas of commercial buildings and resting areas – inside and outside the paid entrance of GOAM are mentioned below in detail.

[G¹] Gathering Area in front of Tokalı Church creates safety problems for pedestrians because of its adjacency to the vehicular road.

[G²] Gathering Area where tour buses stop and drop off their passengers is very near to entrance of Göreme Open Air Museum. Moreover, [G²] is adjacent to open area of commercial buildings near the museum entrance. This causes safety problems for the pedestrians in densely pedestrian use area and conflict in the use of open areas.

In **[G³] Gathering Area**, there is a dense visitor flow of visitors who are buying ticket then going to museum and coming back from museum in [G³]. This flow creates complexity in use and visitor density in area.

In **[G⁴] Gathering Area** area, visitor groups are first introduced to museum by their tour guides. This prevents other visitors read information panels of Rahibeler Monastery.

Visitors wait for church queue of Saint Barbara Church in **[G⁵] Gathering Area**. The area gets crowded in busy days and prevents other visitors’ museum experience.

[G⁶] and [G⁷] Gathering Areas get crowded because visitors take photographs landscape due to its visual values and wait for church queues. Such crowd due to these two uses obstructs other visitors' museum experiences.

[O¹] Open Area of Commercial Buildings located at the west of GOAM entrance is problematic because of its proximity to the museum entrance and **[CP²]** vehicular park. This situation creates complexity in vehicular and pedestrian use and safety problem for pedestrians. Besides safety problems, souvenir displays in **[O¹]** creates visual pollution at the entrance of GOAM.

[O²] Open Areas of Commercial Buildings obstructs visitors' site experiences due to being embedded in the ground. Moreover, its location between ticket tolls and **[G³]** is problematic due to entrance to this open area from already crowded area.

While **[R¹] Resting Area** has visual values, the area is not used and experienced by visitors efficiently. This is because, the area cannot be perceived from vehicular and pedestrian roads.

[R²] Resting Area is equipped with movable sitting units, but sitting units are placed arbitrarily and the area is not designed regarding its resting area function.

While **[R³] Resting Area** is used by museum visitors, this area is not designed comprehensively considering whole museum site.

[R⁴] Resting Area is equipped with immovable sitting units, but it is located in very narrow and crowded area. In that respect, sitting units in the area are not used efficiently.

Problems Regarding "Current Visitor Practices and Routes"

Visitors have a chance to come to GOAM by their car, tour buses, bike and on foot. While these alternatives propose various experiences for visitors, they are not designed in complementary manner and they are uncontrolled. On the other words, visitor management which control and organize all these various alternatives is not proposed. In that respect, not only each of these various alternatives are problematic, but also juxtaposition of them creates problems for visitors visiting GOAM and damages natural and cultural values of museum. Problems regarding visitor practices inside and outside the GOAM are detailed below.

In **Practices of Visitors Coming with Their Own Cars/ 1** case, cars get very near to entrance of Göreme Open Air Museum. This creates safety problems for pedestrians in dense pedestrian use area.

After visitors park their car on [CP¹], In **Practices of Visitors Coming with Their Own Cars/ 2**, they walk through [PR¹] and reach museum entrance. There is not any building or interpretive activity on this route. Such lack of activity makes museum visit unpleasant and boring. Moreover, uncontrolled vehicular traffic creates problems for visitors walking to entrance of Göreme Open Air Museum.

In **Practices of Visitors Coming with Tour Buses/ 3**, buses that drop off their passengers at the very near to entrance of Göreme Open Air Museum create safety problems for pedestrians. This problem reduces visitor experience during their site visit.

After visitors park their bikes in [CP¹], they walk through [PR¹] and reach museum entrance in **Practices of Visitors Coming by Bike/ 4**. There is not any building or interpretive activity on this route. Such lack of activity makes museum visit unpleasant and boring. Moreover, vehicular traffic on [VR] creates safety problems for bike drivers. This is because, there is no space reserved for bikes on the road. Also, there is not any specific parking area for bikes and coming by bike is not promoted.

Visitors walk from Göreme town center to GOAM in **Practices of Visitors on Foot/ 5**. Vehicular traffic on [VR] creates safety problems for visitors walking in this route. This is because, there is no space reserved and no precautions are taken into account for visitors walking on the road in order to provide safety.

While variety of alternatives exists for visitors approaching GOAM, all of the visitors experience museum within the same [MT] Museum Trail. Besides practices of visitors approaching to GOAM, **Practices of Visitors on Museum Trail [MT]** are problematic. [MT] Museum trail does not satisfy visitor needs in terms of street furnitures such as sitting units and interpretive panels. Moreover, uncontrolled use of open areas causes long waiting times for visitors and reduces visitor experiences. Also, uncontrolled use of rock cut spaces accelerates deteriorations of rock cut spaces.

The last problem regarding visitor practices in GOAM is **Practices of Visitors Coming From [CP¹] to [MT]**. There is not any building or interpretive activity for visitors coming from [CP¹] to [MT]. Such lack of activity makes museum visit unpleasant and boring. In

that respect, visitors do not want to walk from [CP¹] to [MT] and they attempt to get as near as possible to museum entrance by their cars or tour buses. Moreover, slope ascends through museum entrance on road and slope creates difficulty in access.

Problems Regarding “Management, Security and Monitoring”

Management in GOAM is multifaceted issue that there are many stakeholders as museum chief and museum director. In addition, there is not comprehensive management plan of GOAM. Security in GOAM is also problematic. There are three types of personnel that are responsible for the security in GOAM. Moreover, there are not any monitoring activities in museum. This is problematic because of not understanding needs of the site.

4.3. POTENTIALS

In this chapter, potentials of Göreme Open Air Museum are defined under four titles. These titles are **Boundaries; Museum Trail; Viewing Points; and Use**. These titles are explained below and presented in sheets concerning potentials of museum (Figure 110).

Potentials Regarding “Boundaries”

All the physical interventions regarding visitor and administrative services in Göreme Open Air Museum – such as vehicular parks, new buildings, panels etc. – are done in the “**Boundary of Study Area**”. All the physical interventions regarding visitor and administrative services in GOAM are done in the “Boundary of Study Area”. This boundary defines reference for the boundaries of new interventions in the museum. In addition, already intervened areas in GOAM define areas for future new building interventions in the museum. This is because; designing new buildings in already intervened areas will provide not destructing natural landscape of the museum.

Potentials Regarding “Museum Trail”

Although the route of **[MT] Museum Trail** is appropriate, it should be equipped with street furnitures such as sitting units and interpretation panels and open area arrangements should be proposed in order to improve visitor experience.

Potentials Regarding “Viewing Areas”

[WP^M] Viewing points and areas looking towards landscape having manmade elements and **[WP^P] Viewing points and areas looking towards visually polluted areas** are potentials. While both of these viewing points and areas are values of GOAM, there are manmade elements that reduce visual values of the viewing points and create visual pollution. By the removal of these manmade elements, valuable viewing points will be obtained.

Potentials Regarding “Use”

Use of Rock Cut Spaces

While presenting interpretive facilities in **Rock Cut Spaces that are Open to Public and Presented with Interpretive Facilities** has its own value, the interpretive facilities should be improved in terms of their designs, materials and contents. Moreover, these rock cut spaces could be presented to the visitors at night if necessary infrastructure is installed and security precautions are taken into account. **Rock Cut spaces that are Open to Public** have re-functioning potential. **Rock Cut Spaces that are in Administrative Use** have potentials due to avoiding new building constructions having administrative purposes.

Use of New Buildings and Temporary Structures

New Buildings and Temporary Structures in GOAM have complementary functions that satisfy visitor needs and propose enjoyable visit during site visit. While, existence of **museum shop, ticket booth, shelter over entrance toll, WC, and commercial buildings** with their complementary functions is valuable, new buildings and temporary structures are not designed with comprehensive manner and they are questionable in terms of their material and architectural quality.

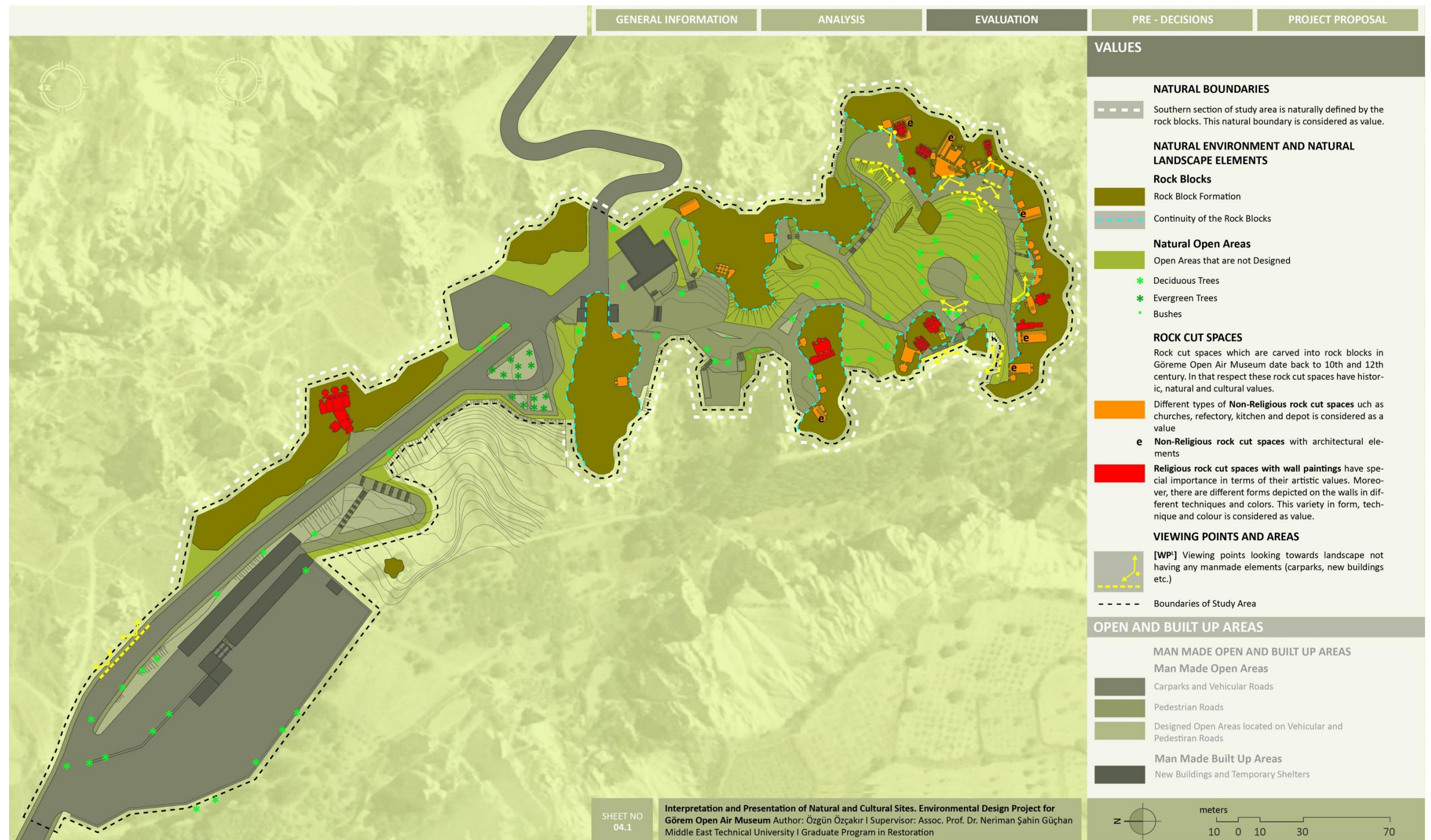


Figure 106 Values of GOAM

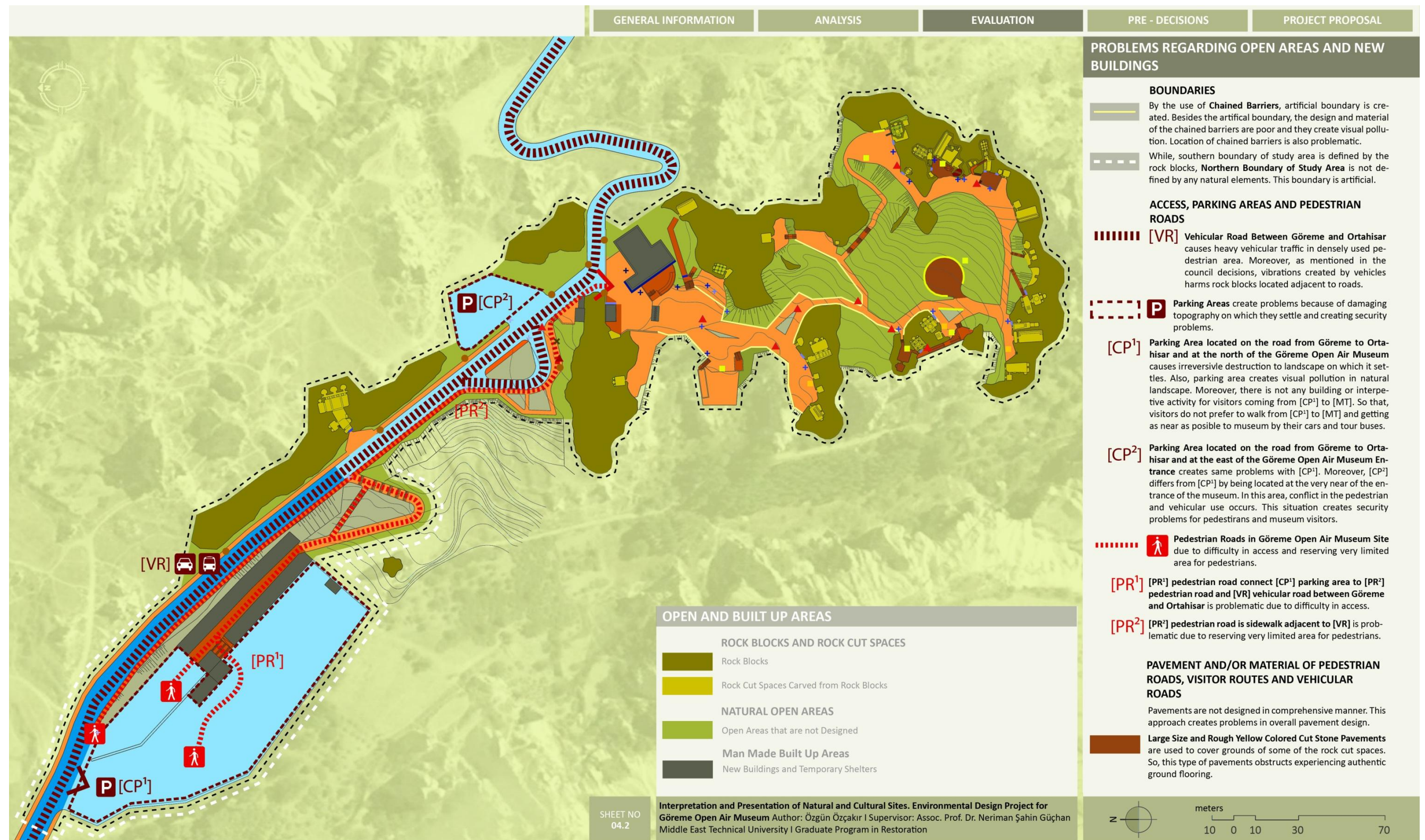


Figure 107 Problems Regarding Open Areas and New Buildings in GOAM

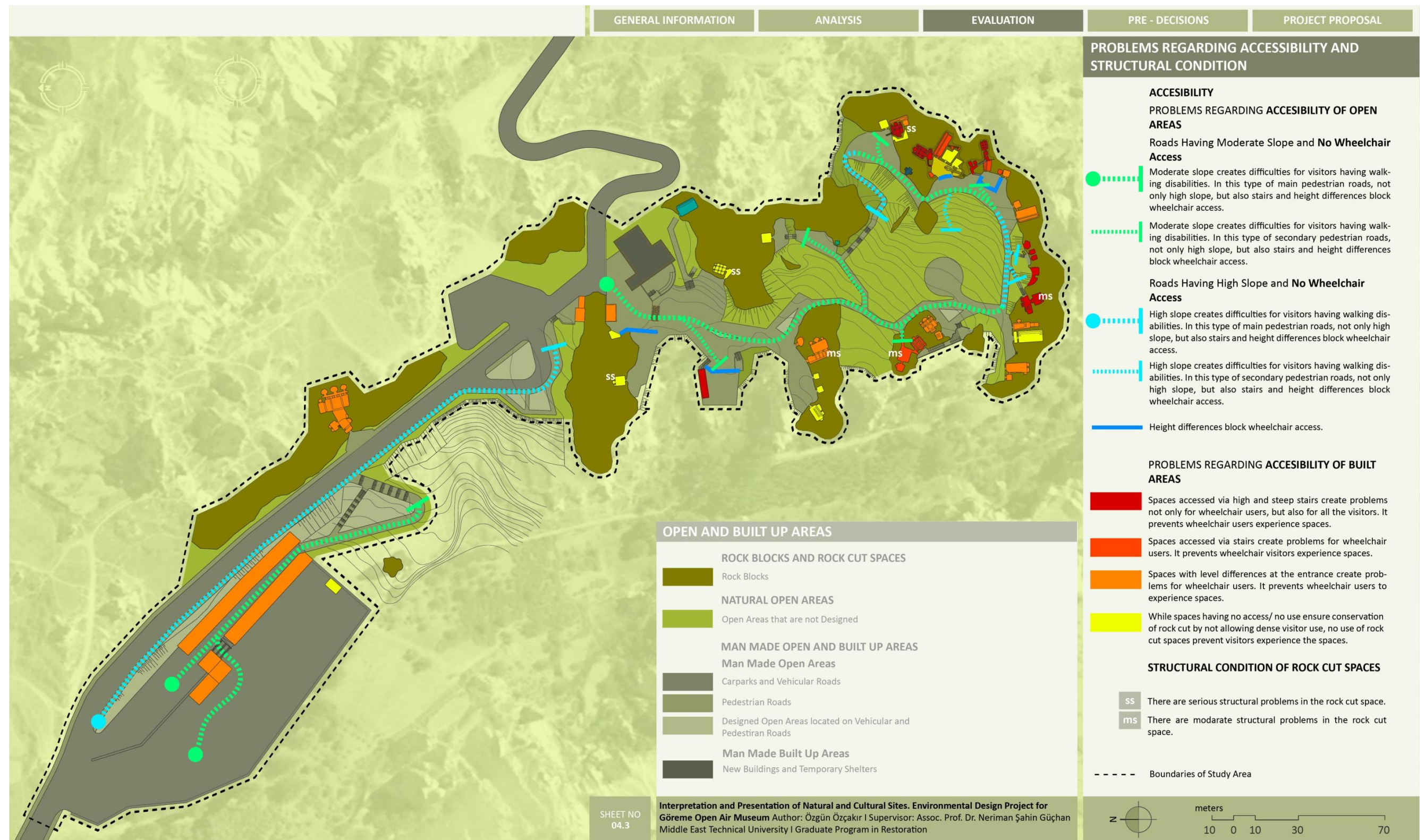


Figure 108 Problems Regarding Accessibility and Structural Condition in GOAM

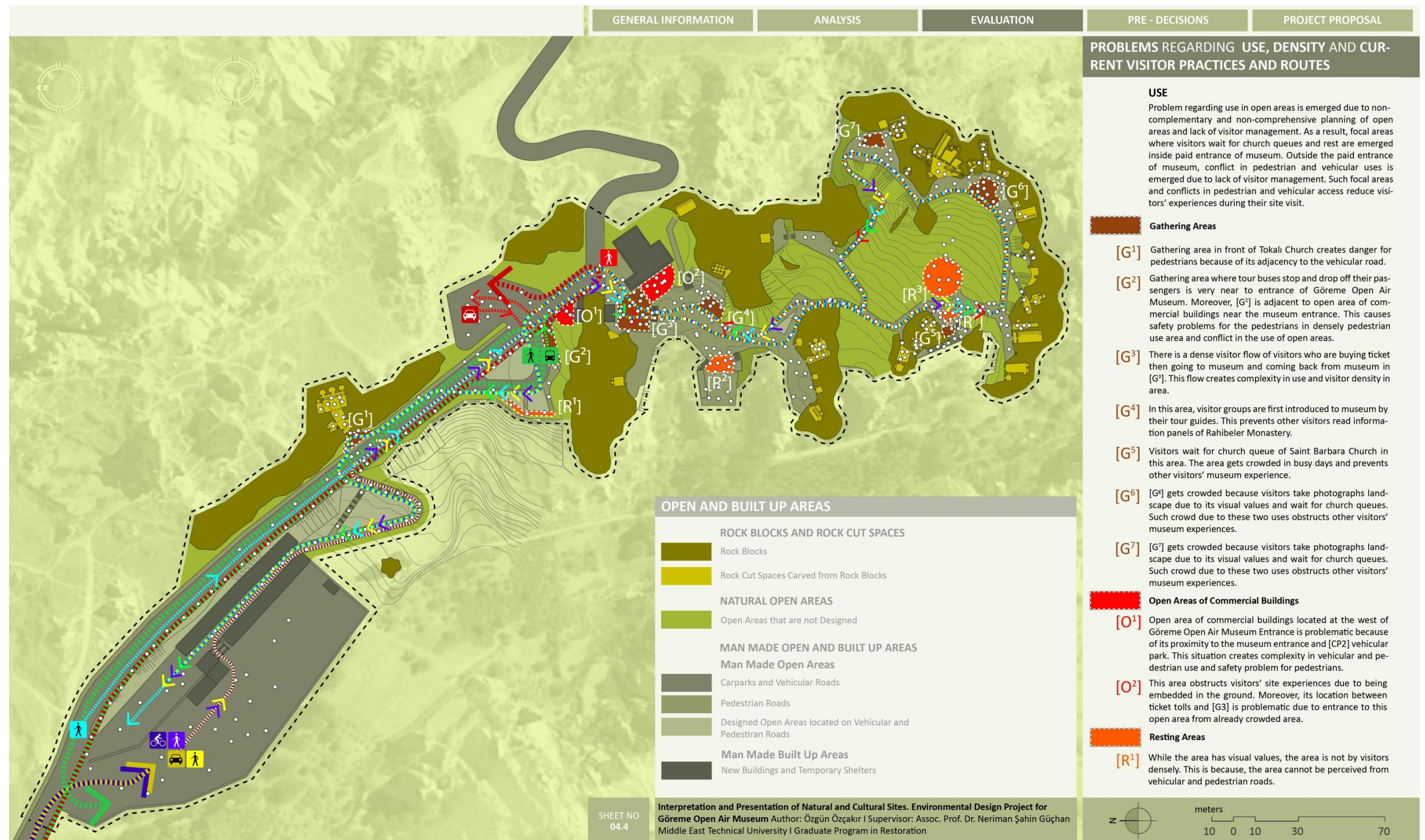


Figure 109 Problems Regarding Use, Density, Current Visitor Practices and Routes in GOAM

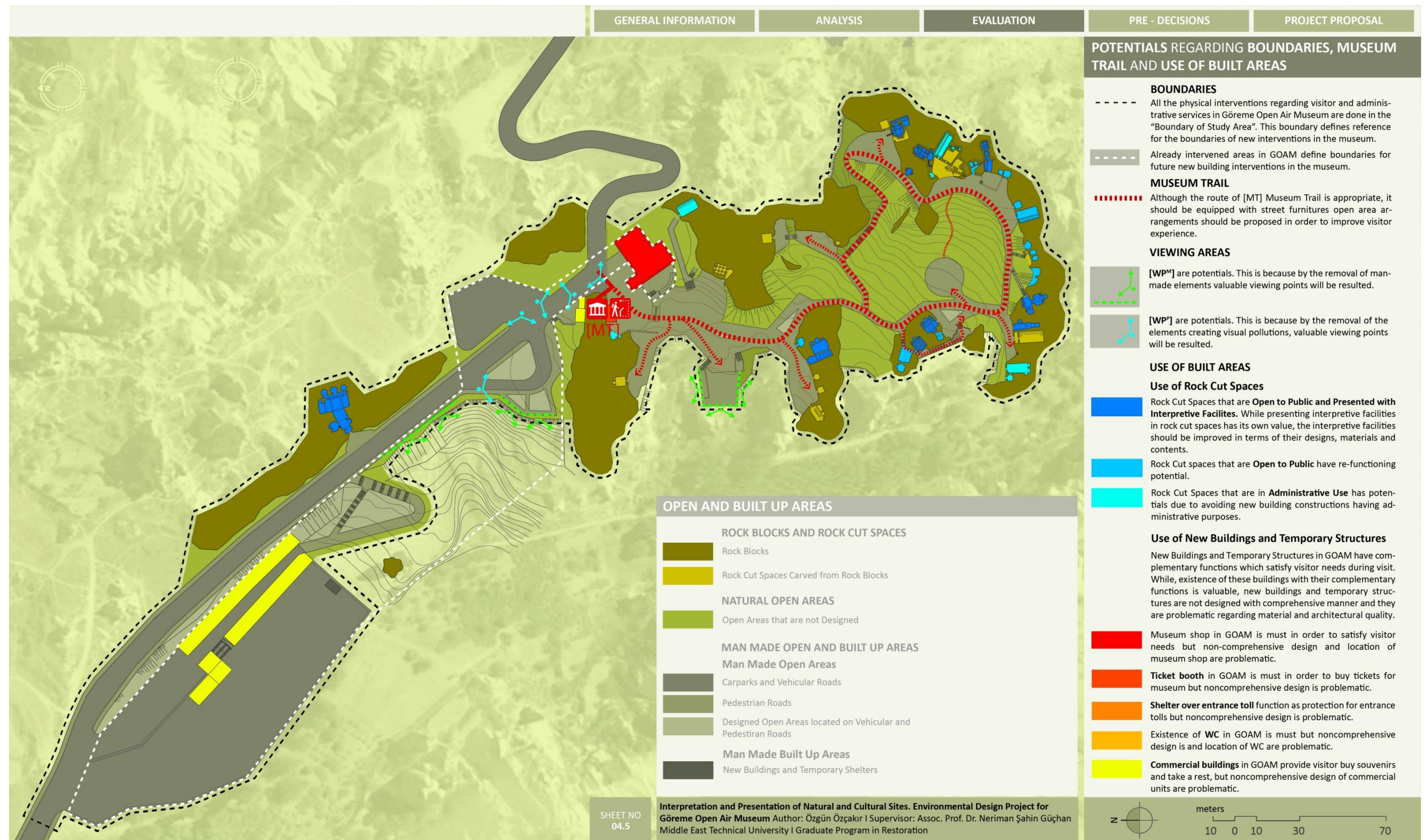


Figure 110 Potentials Regarding Boundaries, Museum Trail and Built Areas in GOAM

CHAPTER 5

PRELIMINARY DECISIONS AND “GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT” PROPOSAL

All these analysis and evaluations on general features and current state of Göreme Open Air Museum is prepared in order to propose comprehensive “Environmental Design Project” that consists of not only physical interventions, but also managerial regulations to increase interactions between visitors and heritage sources. In this part of the thesis, preliminary decisions are mentioned first to define guidelines for “GOAM Environmental Design Project” and then comprehensive decisions that define basis for new proposals of GOAM EDP. After that, physical interventions and new proposals in open and built areas are stated in project proposal phase. Finally, architectural drawings and 3D models of GOAM EDP are produced in order to present the project.

5.1. PRELIMINARY DECISIONS FOR THE PREPERATION OF “GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT”

In this part of the thesis, preliminary decisions are developed by giving references to analysis and evaluations regarding current state of GOAM. Main aim of defining preliminary decisions is declared as to constitute conceptual and contextual basis for “Environmental Design Project for GOAM”. In addition to main aim, other four aims of preliminary decisions are listed as follows.

- to present and interpret rock cut spaces and natural environment of GOAM by the use of new and emerging tools and methods
- to propose brand new visitor scenario that manages visitor flow and interprets GOAM to visitor in order to reduce decay in museum
- to organize visitors visit in the phases and under the themes in order to make visitors visit more comfortable and enjoyable

- to provide economic sustainability of GOAM by increasing visitation in controlled manner
- to encourage the participation of the local people in the economic activities conducted in the museum in order to gain them economical income and consequently provide their adoption to GOAM
- to develop and organizational structure for the museum administration, provide security and monitor the operation of environmental design project during and after its implementation

In the scope of the preliminary decisions, general design principles are defined in order to define design approach to “GOAM Environmental Design Project” firstly. After that an overall visitor scenario, that starts before visitors’ arrival to GOAM and includes interpretive strategies after visitor’s departure from museum, is mentioned. The reason behind starting preliminary decisions with visitor scenario is that, all the decisions regarding built areas; open areas; and management, monitoring and security are made based on visitor scenario in the content of environmental design project.

5.1.1. GENERAL DESIGN PRINCIPLES FOR “GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT”

Current state of GOAM is problematic today due to the lack of general design principles for the interventions to Göreme Open Air Museum. Consequently, many of these problems are occurred due to non-comprehensive and non-complementary design approach. In order to reduce current problems and eliminate them; general design principles, guidelines and must haves will be defined for the preparation of “**GOAM Environmental Design Project**”. The general design principles of **GOAM EDP** are defined according to fragile values of museum and international principles on interpretation and presentation as follows:

- Decisions regarding GOAM should be developed by considering their values and problems of this unique site and in a manner that they propose best experience possible for the visitors.
- All the new interventions in GOAM will be done in already intervened areas. Moreover, in the construction and application of new interventions, minimum excavation works will be proposed (Figure 111).

- New building interventions in the museum will be proposed in [CP¹] and [nb] areas. In addition, open area arrangements will be proposed in [oa¹], [oa²] and [oa³] areas (Figure 113).
- Height of the new buildings proposed in [CP¹] and [nb] areas will not exceed the level of Vehicular Road Between Göreme and Ortahisar [VR].
- New buildings will be designed according to architectural program with the minimum spatial requirements of the new buildings which are defined in 5.1.2. *Visitor Scenario of "Göreme Open Air Museum (GOAM) Environmental Design Project" and Physical Intervention Propositions* chapter of the thesis. Additionally, open air activity area will be designed and activities such as open air concerts will be proposed and programmed in the museum.
- All the interventions should be proposed in a way that it will not destruct natural and cultural values of GOAM and not cause visual pollution in museum. In addition, harmony of interventions to topography must be considered.
- Interventions ranging from street furniture to museum shop should be considered in comprehensive and complementary manner in GOAM. These interventions in GOAM should be implemented in site with durable and compatible materials. Details of all the interventions starting from street furniture to visitor center should be solved precisely.
- Göreme Open Air Museum should be made accessible to disabled visitors in all aspects.

5.1.2. VISITOR SCENARIO OF "GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT" AND PHYSICAL INTERVENTION PROPOSITIONS

Visitor scenario is a comprehensive phenomenon that includes visitors' arrival to heritage site, control of visitor flow inside museum and interpretive themes, strategies after visitors' departure from the site. All these features of visitor scenario cannot be considered by proposing decisions on physical environment of Göreme Open Air Museum. This is because; physical environment, which is composed of open and built areas and their elements in general, is subject matter of visitor scenario. In that respect, visitor scenario is defined by giving references to decisions on physical interventions in GOAM.

In order to propose comfortable, easygoing and enjoyable visitor scenario, strategies and guidelines are defined for visitor scenario. These strategies and guidelines are listed as follows,

- Visitor scenario should be designed in a way that cultural and natural values of GOAM are emphasized. Interpretive themes should be provided regarding significance of GOAM.
- Visitor scenario should be separated into stages which start before visitors' arrival to GOAM and does not end by the departure of visitors from museum in order to provide adaptation to visitors' to GOAM and offer systematic visit.
- Interpretive opportunities should be taken into account in the designation of each stage of visitor scenario so as to enrich museum experience of visitors by the help of personal and non-personal methods.
- Complex and juxtaposed pedestrian and vehicular pattern in GOAM should be rearranged to solve problems regarding their practices in the museum.
- GOAM is a wide area that lots of walk is required in order to complete museum visit. In that respect, dividing long walking distances into short parts will provide more comfortable and easygoing visit. Such division will be provided by distributing various activities in open and built areas of museum throughout visitors' museum visit.
- Visitor management should be provided in the scope of visitor scenario in order to control visitor flow inside museum and solve problems regarding dense visitor use.
- In planning of visitor scenario, variety of types rock cut spaces, dates of rock cut spaces, and variety of forms and figures and different techniques should be considered.

According to mentioned guidelines and strategies, visitor scenario is divided into four sections adhering to its content and these four sections are listed in sequence as: **“outreach and pre-arrival”, “orientation and access”, “on site exploration”, and “off-site programming and links”**. First, content of each section is briefly defined and then visitor scenario of “GOAM Environmental Design Project” is described in detail under these titles below.

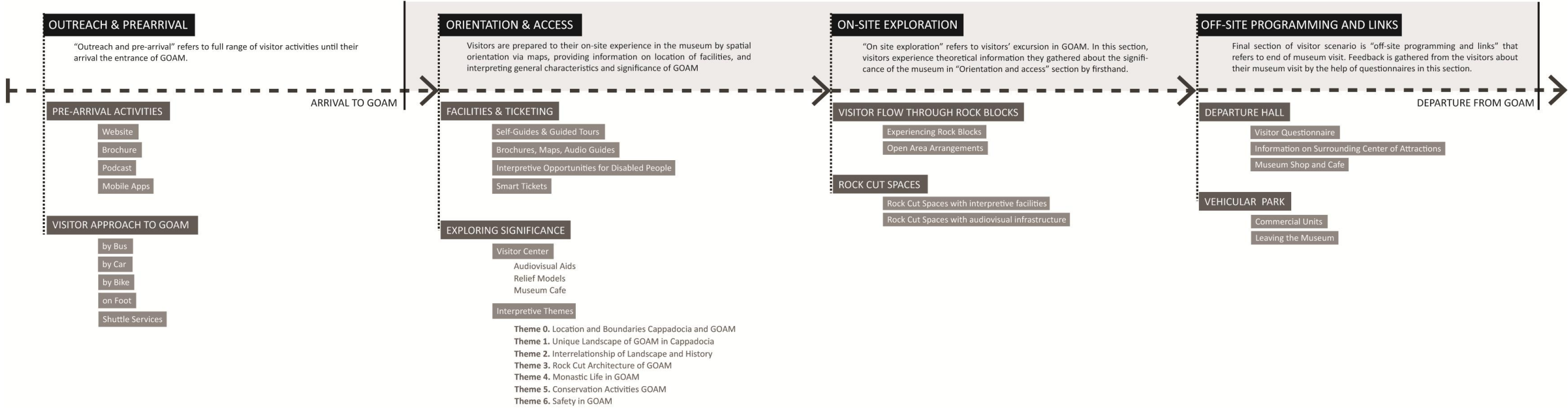
First section of the visit, **“Outreach and pre-arrival”** refers to full range of visitor activities until their arrival the entrance of GOAM. This section not only includes outreach activities such as checking website of museum and reading brochures etc., but also mode of transportation that visitor use while approaching the entrance of museum. **“Orientation and access”** is the preparatory stage that starts with the visitor’s first steps in GOAM. In this section, visitors are prepared to their on-site experience in the museum by spatial orientation via maps, providing information on location of facilities, and interpreting general characteristics and significance of GOAM in the boundaries of museum. **“On site exploration”** refers to visitors’ excursion in GOAM. In this section, visitors experience theoretical information they gathered about the significance of the museum in “Orientation and access” section by firsthand. Final section of visitor scenario is **“off-site programming and links”** that refers to end of museum visit. Feedback is gathered from the visitors about their museum visit by the help of questionnaires in this section. Moreover, visitors are informed about surrounding center of attraction and their visit to surrounding places are encouraged. Four stages of “Visitor Scenario of GOAM Environmental Design Project” are shown in Table 19 by uncovering various visitor practices throughout their museum visit.

Outreach and pre-arrival

This section of the visitor scenario is introductory phase that consists of visitors’ practices before their arrival to the site and their way of approach to GOAM. In that respect, **“outreach and pre-arrival”** section of visitor scenario is divided into two consecutive parts as *Pre-arrival Activities* and *Visitor Approach to GOAM*. *Pre-arrival Activities* refer to all type of interpretive opportunities that visitors get interaction prior to their arrival to GOAM. In addition to *Pre-arrival Activities*, *Visitor Approach to GOAM* refers to phase that visitors’ way of approach to museum.

Most visitors come to Göreme Open Air Museum first time as revealed in the interview conducted with the visitor in museum. Consequently, *Pre-arrival Activities* are visitors’ first contact with the site frequently. In that respect, *Pre-arrival Activities* are designed in a way that it will prepare visitors/ potential visitors for their visit in GOAM and inform

Table 19 Four Stages of "Visitor of GOAM Environmental Design Project"



visitors about facilities and opportunities provided in the museum. In the content of *Pre-arrival Activities*, first action is development of the website that orients visitors to GOAM and introduce them the significance of museum in various languages. A website will include directions to GOAM by giving references to maps, information on surrounding center of attraction, highlights of GOAM, description and fee structure of admissions and visitor facilities and opportunities, rules and regulations of museum visit, downloadable media such as maps, podcast, and desktop wallpaper. Second action is preparation and publication of brochures and booklets. These brochures and booklets will include maps, information on surrounding center of attractions, and descriptions regarding general features and characteristics of GOAM. Brochures and booklets will both be printed and published in a website. Moreover, printed brochures and booklets will be placed in locations where as many audiences as possible access to these sources such as surrounding center of attractions and local accommodation places. The last action planned in *Pre-arrival Activities* of visitor scenario is use of mobile media as podcasts and applications. Podcasts and mobile applications can be downloaded to mobile devices of visitors and accompany their visit throughout museum excursion. In the content of podcast and mobile applications; audio articles and documentaries about general features and architectural characteristics of GOAM will be prepared.

After visitors' experiences with distant interpretive opportunities as website, brochures and mobile applications prior to their arrival to site, they set off their way on Göreme Open Air Museum and reach the museum. This period until visitor's reach to the entrance of museum is defined as *Visitor Approach to GOAM* in "Outreach and pre-arrival" section of the visitor scenario. In the content of *Visitor Approach to GOAM*, decisions regarding vehicular and pedestrian approach to museum are updated and new modes of transportation are offered. Actions proposed for the *Visitor Approach to GOAM* part of the visitor scenario are listed as follows.

- Current Vehicular Road Between Göreme and Ortahisar [VR] that passes through Göreme Open Air Museum is closed to the vehicular traffic and new road is proposed between these towns (Figure 113). Vehicles which come GOAM are directed to the vehicular park of museum, and then visitors will get off their vehicles and continue their way as a pedestrian. As a result, present juxtaposed vehicular and pedestrian patterns in GOAM will be separated that confusion between these two uses will be eliminated.

- Despite the fact that Current Vehicular Road Between Göreme and Ortahisar [VR] is closed to the vehicular traffic, the road will be open to use of pedestrians and bikers for hiking activities. Moreover, the vehicular road will be used by ambulances, fire trucks etc. in case of emergencies.
- Visitors approach to GOAM is mostly by their cars today. Consequently, pressure of vehicles to vehicular park occurs today because of park's limited capacity. In order to reduce this pressure, in addition to entrance fee extra fee is paid for vehicular park and various modes of transportation are offered. GOAM's proximity to the Göreme town center makes going to museum by bike and on foot possible. Moreover, extra fee for vehicular park will encourage the use of alternative modes. Moreover shuttle services from Göreme town center to GOAM are programmed.
- In the new vehicular park, areas reserved for bikes, minibuses, and buses are designed in addition to personal cars. Moreover, drop off and pick up area will be designed in the vehicular park for minibuses, tour buses and shuttle services.

After visitor come to GOAM by one of the various transportation modes offered in the scope of visitor scenario, they continue their way to visitor center and complete "Outreach and pre-arrival" section of the visitor scenario. Second stage of visitor scenario, which is "**Orientation and access**", consists of visitors' take off from vehicular park, their experience in visitor center, and arrival to the entrance open area surrounded by rock blocks having different heights in which rock cut spaces with different characteristics are carved out.

Orientation and access

One of the aims of visitor scenario is directing visitor to museum and orienting them in GOAM. Moreover, providing information about how to access facilities and services offered in museum and reveal significance of GOAM by means of various interpretive opportunities have crucial importance in order to propose responsible and enjoyable visit.

In line with these objectives, the functional content of the "*Orientation and access*" section of visitor scenario is defined as introducing services and facilities presented in museum and ticketing; interpreting the significance of GOAM by giving references to themes; and finally proposing complementary uses that satisfy visitors' basic needs such as eating and resting. In order to provide these services, facilities and interpretive

opportunities; **Visitor Center** that consists of all these functional contents is proposed with its architectural program. The functioning of **GOAM Visitor Center** is structured in a sequence as follows. Firstly, visitors will decide whether they need tour guide or not and buy their entrance tickets regarding their decision. Afterwards, visitors continue their way in visitor center and they will explore Göreme Open Air Museum by the help of interpretive themes in various personal and non-personal interpretive opportunities. Subsequently, visitors will be prepared and equipped prior to their excursion in GOAM and leave visitor center to visit rock cut spaces. Accordingly, proposed visitor scenario of “*Orientation and access*” section is described in two consequent parts as *Introducing Facilities and Ticketing* and *Exploring Significance* by giving references to architectural necessities of each part.

Introducing Facilities and Ticketing

In this part of the “*Orientation and access*” section of the visit, visitors understand facilities and services provided in GOAM as guided tours and self-guided tours with their interpretive infrastructure. In addition to two types of tours, facilities and services offered to various age groups and various types of users will be introduced in this part. At the beginning of visitors’ excursion in museum, they will decide on how and by which means they will experience the open air museum. After that, visitors will buy their entrance ticket regarding their choices. On the other words, visitors’ choices of interpretive opportunities that accompany them during their museum excursion directly affect their ticketing admissions in GOAM. Accordingly; interpretive tours, facilities, and services is mentioned first and then their interrelationships between ticketing admissions are stated.

Once visitors enter **GOAM Visitor Center**, they are first informed on visitor services and facilities. There are two main options that form visitors’ choices of museum experiences: *guided tours* and *self-guided tours*. In addition to guided or self-guided tours, visitor will decide whether they want to visit Karanlık Church or not before buying their entrance ticket. Karanlık Church promises most preserved wall paintings in Cappadocia and it is very fragile in that respect. Accordingly, number of visitors in Karanlık Church should be controlled. So that, visitors who want to visit Karanlık Church will pay extra fee as it is today and their choices are indicated in their tickets. If visitors prefer guided tours, they will register for the tour in ticket admissions and GOAM’s official site guide will

accompany them throughout their visit until visitors leave the museum. On the other hand, if visitors prefer self-guided tours, audio guide prepared in various languages is presented. In addition to site guide or audio guide depending their choices, supplementary brochures giving information about general characteristics and architectural features of GOAM, map of GOAM with the plans and definitions of rock cut spaces indicating their significance, and duration of GOAM visit by giving references to proposed visitor scenarios will be given to visitors with entrance ticket. GOAM brochures, audio guide and maps will be prepared in various languages in addition to Turkish due to being international touristic attraction such as English, German, French, Italian, Spanish, Russian and Japanese. Moreover, visitors with disabilities are considered in the design of interpretive opportunities. For example, braille guides and audio guides are offered for sight-disabled visitors; tour transcripts are prepared for deaf visitors; and basic language audio tours and easy to understand brochures are proposed for visitors with learning difficulties.

In accordance with visitors' decisions regarding two modes of museum experiences offered in GOAM and their choices of visiting Karanlık Church or not, **"Smart Tickets"** that control number of visitors inside GOAM are proposed. Number of people visiting GOAM at the same time is restricted due to the limited capacity and fragile values of museum.¹²⁰ In visitor scenario, it is proposed that if number of visitors in GOAM exceeds the defined limit, visitors will not let go through the museum and they will wait in waiting hall which is spatially interrelated with ticketing area. On the contrary, if the visitor number in GOAM does not exceed the limit, visitors will let continue their way to explore significance of museum by giving reference to interpretive themes in **GOAM Visitor Center**.

Exploring Significance of GOAM

As the name suggests, this part of visitor scenario is developed in order to prepare visitors to their museum excursion. In the content of *"Exploring Significance of GOAM"*, information about general characteristics of GOAM and architectural features of GOAM, and rules and regulation of museum visit under specified interpretive themes are

¹²⁰ Visitor practices inside GOAM is mentioned by detailing restrictions in museum and limitations regarding number of visitors in "on-site exploration" section of visitor scenario

proposed. These themes of GOAM which are defined by giving references significance of museum are listed in the sequential order with their contents as follows:

Theme 0: Location and Boundaries of Cappadocia and GOAM

Under this theme, location and boundaries of Cappadocia will be introduced to visitors by the use of maps in various scales. Moreover, World Heritage Status of Cappadocia, conservation sites boundaries and importance of these boundaries in the protection of the fragile environment of Cappadocia and GOAM will be explained.

Theme 1: Unique Landscape of GOAM in Cappadocia

Formation of Cappadocia's extraordinary landscape through the erosion of lava erupted from volcanoes by the natural forces such as wind, rain, snow, daily climatic differences, floods and rivers is explained in this theme by the use of documentaries, graphic illustrations and maps.

Theme 2: Interrelationship of Landscape and History in GOAM

In this theme, interrelationships between landscape and history in Cappadocia and role of such interrelationship in the production of architecture of Cappadocia are stated. Christians escaping from the Arab attacks settled in Cappadocia due to Cappadocia's geographical formations which allow people to hide. Consequently, Christians in Cappadocia have excavated spaces such as dwellings, church, monasteries, chapels and depots in easily carved rock blocks starting from the 4th century.

Theme 3: Rock Cut Architecture of GOAM

Under this theme, techniques of how to carve out rock cut space from rock block and depict wall paintings on the wall surfaces will be introduced first. After that, types of rock cut spaces in GOAM will be stated as churches, chapels, monasteries, depots, kitchens and refectories, then their features such as nave, narthex, apse and architectural elements such as arch, niche, vault and dome will be explained. Consequently, general characteristics of all the rock cut spaces will be defined by stating their significance.

Theme 4: Monastic Life in GOAM

As stated in '*Theme 3: Rock Cut Architecture of GOAM*', there are various types of rock cut spaces constructed for different purposes. In this theme; daily life pattern of monastic community living in GOAM will be revealed by mentioning how they live, cook, and worship.

Theme 5: Conservation Activities GOAM

Göreme Open Air Museum has been subject of various projects and interventions in order to improve its facilities and provide safe and enjoyable visit for visitors. Under this theme, all the conservation and interpretation activities conducted in the museum since GOAM opened its doors to the public will be stated.

Theme 6: Safety in GOAM

Natural and cultural values that constitute the significance of GOAM are very fragile. In that respect, understanding museum rules and regulation for safe and responsible visit is so essential. Under this theme, rules and regulations that are set in order to protect museum sources and provide safe visit for visitors in their GOAM excursion will be stated. These rules and regulations are listed as follows:

- Taking photographs and touching wall painting inside rock cut spaces is forbidden
- Instruction and guidance of tour guides and church guards should be followed during the museum visit
- In busy days, time limit for the museum visit is rapidly updated. In that respect, visitors should obey the time limit defined for their excursion
- GOAM is open to public visit between 8 o'clock in the morning and 5 o'clock in the evening in winter, between eight 8 o'clock in the morning and 8 o'clock in the evening in the evening in the summer. Visitors should pay attention to opening and closing times of the museum before starting their visit

These interpretive themes, which are presented in 'interpretation and exhibition halls' of GOAM **Visitor Center**, will be enriched with various interpretive opportunities such as audiovisual aids, computer exhibits and kiosks, and relief models to provide enjoyable experience for visitors. In addition to interpretation and exhibition halls, all spatial requirements of "Orientation and Access" section of visitor scenario will be met in GOAM Visitor Center. Moreover, program elements that satisfy basic human needs as a café and

WC are also considered. Architectural program of GOAM Visitor Center which is prepared by giving references to investigated visitor center examples in the 2.2. Case Studies part of the thesis is shown in Table 20 with minimum space requirements.

On-site exploration

Point of interest of Open Air Museums is rock blocks formed by natural forces throughout centuries, and rock cut spaces carved in rock blocks having cultural and natural values. All the preliminary phases such as “outreach and pre-arrival” and “orientation and access” prepare visitors for the best experience on rock blocks and rock cut spaces, on the other words, “on-site exploration”. On site exploration starts from visitors’ entrance to open area surrounded by high rock blocks where rock cut spaces are densely located, continues through their firsthand experiences with the rock cut spaces and ends by their leave from the area. *On-site exploration* is the most brittle part of visitor scenario due to direct contact of visitors to fragile rock blocks and rock cut spaces. Consequently, this section of the visit should be carefully organized.

“On-site exploration” section of visitor scenario has multifaceted content that comprise controlling visitor flow in museum, improving museum trail by reconsidering open areas and developing interpretive strategies for publicly used rock cut spaces. Accordingly, pre-decisions of the “on-site exploration” section of visitor scenario is pointed out as follows,

- Visitor flow inside the museum will be organized by not only restricting number of visitors but also defining visitors’ practices inside museum in order to provide easygoing and comfortable visit and reduce rapid deterioration caused by uncontrolled use.
- Check point will be proposed at the entrance of museum trail in order to control number of visitors experiencing rock cut spaces throughout museum trail by the help of “Smart Tickets”.

Table 20 Architectural Program of GOAM Visitor Center

ARCHITECTURAL PROGRAM OF GOAM VISITOR CENTER	
Ticketing Area with Foyer and Waiting Hall	700 m ²
Visitors will buy their entrance tickets and wait before they continue their way in visitor center in this area which is equipped with digital screens giving information about GOAM by audiovisual media	
Interpretation and Exhibition Halls	1000 m ²
Significance of GOAM will be presented in <i>Interpretation and Exhibition Halls</i> by giving references to interpretive themes by the use of various interpretive media as relief models, audio-visual aids, interactive computer exhibits	
Audiovisual Rooms	400 m ²
Non-personal interpretive activities such as documentary screening about GOAM, and personal activities such as live interpretations and demonstrations will be conducted in <i>Audiovisual Rooms</i>	
Research and Education Rooms	250 m ²
Research and Education rooms are proposed for researches work on Cappadocia and GOAM and school children	
Café	250 m ²
Resting and eating area is proposed for people in <i>GOAM Visitor Center</i>	
WCs	175 m ²
WCs are must in each and every visitor center in order to satisfy visitor's basic needs	
Administrative Office	250 m ²
Office for GOAM Manager, office for tour guides, security staff, bedroom for guards and service spaces as WC and shower	
Technical Services	100 m ²
Boiler room, water storage, cleaning room, mechanical and electrical installation room etc.	
TOTAL	2625 m²

- Visitors will spend three minutes in each rock cut spaces in busy days. In addition, maximum twenty visitors will be allowed to enter each rock cut spaces per three minutes. It means that, twenty visitors will enter rock cut spaces twenty times. Consequently, 400 visitors will enter and leave Museum Trail [MT] in one hour. As museum visit will be offered between 8 o'clock in the morning and 5 o'clock in the evening, 3200 visitors will visit GOAM in one day and 96000 visitors in one month.
- Museum trail will stay as it is but will be improved by new open area arrangements at the points that values of GOAM are best experienced. In addition to experience of values, existence of enough open areas for new arrangements is important criteria.
- Street furniture as information, advertisement and interpretive panels; sitting units; and trash bins will be redesigned with compatible and durable materials in a comprehensive manner. Moreover, locations of these elements will be reevaluated.
- Necessary infrastructure will be equipped to the open to public and not used rock cut spaces in which there is no wall painting for audiovisual interpretive activities and workshops.
- Interpretive opportunities will be improved in rock cut spaces that are open to public and new opportunities with emerging technologies will be proposed.

In the scope of the “on-site exploration” section, decisions are stated under three titles according to multifaceted content of the section: *rock cut spaces*, *visitor flow throughout museum trail*, and *open areas*.

Management of visitors and control of visitor in GOAM starts in “orientation and access” section of the visitor scenario. In “orientation and access”, it is stated that limit regarding number of visitors situated in GOAM at the same time is defined and when the limit is exceeded, upcoming visitors will wait after they buy their entrance tickets. The limit of visitor number is defined according to capacity of rock cut spaces and their interpretive facilities.

Rock cut spaces are point of interest in GOAM and visitors come to visit these spaces. Over visitation and uncontrolled use in rock cut spaces will reduce visitors’ experiences during their visit and cause rapid decay of the values. Capacity of rock cut spaces define

limit for visitor number, and interpretive strategies proposed for each rock cut spaces define visitors' practices in GOAM. Accordingly, juxtaposition of these two decisions will provide basis for definition of *visitor flow throughout museum trail* in GOAM. In that respect, first decisions regarding interpretation and presentation of each *rock cut spaces* and their visitation capacity are indicated. After that, visitor management in GOAM is mentioned regarding capacity of GOAM in *visitor flow throughout the museum trail* part of "on-site exploration" section of the visitor scenario. Finally decisions on *open areas*, which are reconsidered in order to provide resting and gathering areas for visitors during their GOAM excursion, are pointed out.

As indicated in the Analysis of Built Areas, there are 24 *rock cut spaces* in different architectural types as churches, monasteries, chapels, refectories and depots in GOAM. To repeat, eleven of rock cut spaces are open to public and presented with interpretive facilities as audio guides and interpretive panels, three rock cut spaces are open to public, three rock cut spaces are in administrative use, there is no access to seven rock cut spaces. Decisions regarding interpretation and use of rock cut spaces are stated by giving references to four types of use mentioned above. Interpretive opportunities in "rock cut spaces are open to public and presented with interpretive facilities" will be improved in a way that redesign of interpretive panels with compatible and durable materials. Moreover, wheelchair accessibility to these spaces will be considered. Three rock cut spaces which are open to public will be equipped with audiovisual interpretive opportunities in order to provide documentary screenings and workshops for visitors of all age groups. Three rock cut spaces with administrative use will remain its function in order to provide space for church guards, officers and medical doctors in case of emergencies. Finally, rock cut spaces with no access will be reevaluated and they will open to public use and presented with interpretive facilities in respect to their values. In case of not opening rock cut spaces with no access to public use, these spaces will remain closed and limited access in exceptional on-site activities will be provided. All the decisions regarding proposed uses each of rock cut spaces are shown in Table 21.

In addition to proposing new uses to rock cut spaces, number of visitors and duration of visit in each rock cut space are defined. Number of visitor in each rock cut spaces in one-time is determined as 20 visitors according to capacity of these spaces. Moreover, duration of visit in rock cut spaces are defined differently regarding their uses. Duration of visit of rock cut spaces which are presented with interpretive facilities is defined as

three minutes. In addition, duration of visit of rock cut spaces with audiovisual facilities will be determined by museum directorate according to the length of audiovisual shows and workshops. Church guides are responsible for controlling visitors inside rock cut spaces and directing them in museum trail.

All these decisions on use and interpretive capacity of *rock cut spaces* established the base for description of *visitor flow throughout the museum trail*, which refers to visitors'

Table 21 Proposed Uses of Rock Cut Spaces

PROPOSED USES OF ROCK CUT SPACES	
Rock cut spaces of which interpretive facilities are improved	[01] Tokalı Church, [04] Saint Basil Chapel, [05] Elmalı Church, [06] Saint Barbara Church, [09] Yılanlı Church, [10] Pontokrator Church, [13] Depot and Kitchen, [15] Refectory, [17] Karanlık Church, [18] Chapel Church and [19] Çarıklı Church
Rock cut spaces that audiovisual infrastructure is installed	[11] Unnamed Rock Cut Spaces, [12] Refectory and Depot and [20] Refectory and Depots
Rock cut spaces with administrative use to provide space for officers	[07] Refectory and Depots, [16] Refectory and Depots and [24] Refectory
Rock cut spaces that will open to public access. If not, limited access will be provided in exceptional on-site activities	[02] Erkekler Monastery, [03] Unnamed rock cut spaces, [08] Refectory, [14] Unnamed Church, [21] Unnamed Rock Cut Space, [22] Unnamed Rock Cut Space and [23] Rahibeler Monastery

practices inside and outside of rock cut spaces throughout their visit in GOAM. As the name suggests, *visitor flow throughout the museum trail* starts by visitors' arrival to museum trail and carries on by their walk in the museum. Visitors show their "Smart Tickets" in the checkpoint so as to keep count of visitor number in museum trail, before entering the trail. There are two scenarios for visitors in GOAM which change their flow throughout the museum trail: regular museum visit and short museum visit. Regular museum visit refers to visiting all of the rock cut spaces that are open to public in

museum trail. On the contrary, short visit refers to visiting one example from each type of rock cut spaces with different characteristics in GOAM.

In regular museum visit, visitors will first visit [4] Saint Basil Chapel after their entrance to museum trail. After that, visitors will track rock cut spaces in sequential order as, [5] Elmalı Church, [6] Saint Barbara Church, [9] Yılanlı Church, [10] Pantokrator Church, [11] Unnamed Rock Cut spaces, [12] Refectory and Depots, [13] Depot and Kitchen, [14] Unnamed Church, [15] Refectory, [17] Karanlık Church¹²¹, [18] Şapel Church, [19] Çarıklı Church, [20] Refectory and Depots and finally [01] Tokalı Church. As already stated, visitors' experiences in these rock cut spaces will be enriched by various interpretive opportunities as interpretive panels, audio guides and audiovisual aids on their way through museum trail. In regular museum visit, visitors will spend three minutes in each rock cut spaces presented with interpretive facilities and stay approximately ten minutes in rock cut spaces with audiovisual displays. Accordingly, visitors spend one hour to visit all of the rock cut spaces. In addition, visitors spend one hour more to walk between these spaces and have a rest and take photographs in GOAM. As a result, regular "on site experience" takes two hours.

If visitors have limited time for their GOAM excursion, short museum visit is provided. In the short museum visit; [4] Saint Basil Chapel, [6] Saint Barbara Church, [9] Yılanlı Church, [15] Refectory and [01] Tokalı Church will be visited. The reasons behind the selection of these five rock cut spaces in short visit are explained as follows: [4] Saint Basil Chapel included to the list due to being one and only chapel in GOAM; [6] Saint Barbara Church is significant in GOAM because of its abstract and geometric wall paintings which are distinctive from all other rock cut spaces in the area; architecture of [9] Yılanlı Church is different than other churches in GOAM because of its long and narrow rectangular form; [15] Refectory is visited in order to show one of the examples of service spaces in GOAM and their interrelationships between churches; and finally, Tokalı Church will be visited in short visit because of not only being biggest church in the area but also church's phase by phase construction which is still observed today.¹²² In short museum visit, visitors will spend three minutes in each rock cut spaces presented with interpretive facilities as

¹²¹ If visitors declared that they want to visit Karanlık Church during their ticket admissions and bought their tickets in this way, they will be allowed to enter Karanlık Church by the church guards. On the contrary, they will not have a chance to visit Karanlık Church.

¹²² Tuna, T., & Demirdurak, B. (2010). Adım Adım Kapadokya. *Kapadokya* (p. 45). İstanbul: BKG Yayınları.

same in regular visit. However, they will spend 15 minutes to visit all the five rock cut spaces. In addition, visitors spend 45 minutes to walk between these spaces and have a rest and take photographs in GOAM. Consequently, short “on site experience” takes one hour.

Visitors’ experience in GOAM is enriched with the *open area* arrangements on museum trail. In the open areas, resting and gathering areas which are equipped with street furniture and natural landscape elements are designed. Locations of these open areas are defined regarding their visual values and whether having enough area for new arrangements or not. Accordingly, three areas, on which open area arrangements are proposed, are defined as; area at the west of Rahibeler Monastery and adjacent to fountain, area having circular form at the east of Saint Barbara Church and finally area at the west of Çarıklı Church.

Off-site Programming and Links

After visitors’ completion “on-site exploration” by visiting Tokalı Church, they get through the last section of the visitor scenario: “off-site programming and links”. In the “off-site programming and links”, smart ticket of visitors, who completed their museum excursion, will be taken back and their numbers will be discounted from the total number of visitors inside GOAM. Therefore, overall control in number of visitors will be achieved in GOAM. After taking visitors tickets back, questionnaire forms and brochure/maps about surrounding center of attractions and points of interest in Cappadocia will be distributed to them. In the questionnaire forms, they will be requested to answer the questions regarding their satisfaction of services presented in GOAM and their ideas about improvement of facilities. Consequently, services and facilities presented in museum will be updated and revised according to the feedback from visitor questionnaires. Brochure and maps given to visitors with questionnaire forms will promote and encourage visitation of surrounding center of attractions.

In the content of the “off-site programming and links” section of visitor scenario, museum shop administrated by museum directorate to sell publications, souvenirs etc. about GOAM and privately owned commercial units are proposed in addition to preparatory area that visitors give their smart tickets and fill out questionnaire forms. Museum shop and new commercial units will be designed with the same amount of area as it is same in current state in order to protect legal rights of the owner of the

commercial units. In that respect, architectural program of “off-site programming and links” section of visitor scenario is shown in Table 00 with the minimum space requirements.

After spending time in museum shop and commercial units, visitors leave Göreme Open Air Museum by going through vehicular park and complete their museum experience.

Table 22 Architectural Program "Off-site Programming and Links"

ARCHITECTURAL PROGRAM OF “OFF-SITE PROGRAMMING AND LINKS”	
Preparatory Area and Checkpoint	
“Smart Tickets” of visitors are checked and Fill Out Questionnaire Forms in this Preparatory Area	100 m ²
Museum Shop	
Guidebooks, Brochures, Maps, Books, Souvenirs etc. are sold in Museum Shop which is directed by Museum Directorate	500 m ²
Café and Restaurant	
Foods, snacks and drinks will be served and visitors will have a chance to rest in the Café and Restaurant	250 m ²
Commercial Units	
Various facilities such as café, restaurant, souvenir shops etc. are presented in these Privately Owned Commercial Units	1500 m ²

As mentioned before, new services are offered in addition to current facilities in GOAM so as to ensure that visitor spend more time in the museum in an easygoing and enjoyable manner (Table 23). For instance, Interpretation Hall is proposed in the scope of environmental design project due to the need for effective presentation of GOAM to the visitors by means of various opportunities such as documentary screening and relief models.

As a result of spending more time in the heritage site, not only local people but also GOAM will gain economic benefit. Consequently, local people will anticipate the heritage site and needs of GOAM will be fulfilled.

Table 23 Comparison of the Areas of Old and New Facilities

COMPARISON OF THE AREAS OF OLD AND NEW FACILITIES			
OLD/ CURRENT FACILITIES		NEW/ PROPOSED FACILITIES	
Commercial Units	1500 m ²	Commercial Units	1500 m ²
Souvenir Shops	50 m ²	Ticket + Foyer	700 m ²
Ticket Office	350 m ²	Waiting Hall	500 m ²
Museum Shop	450 m ²	Interpretation Hall	1000 m ²
WC	45 m ²	Audiovisual Halls	400 m ²
		Research and Education	200 m ²
		Café	175 m ²
		Administration	250 m ²
		Checkpoint	100 m ²
		Museum Shop	500 m ²
		Restaurant	250 m ²
		Technical Room	100 m ²
TOTAL	2395 m²	TOTAL	5675 m²

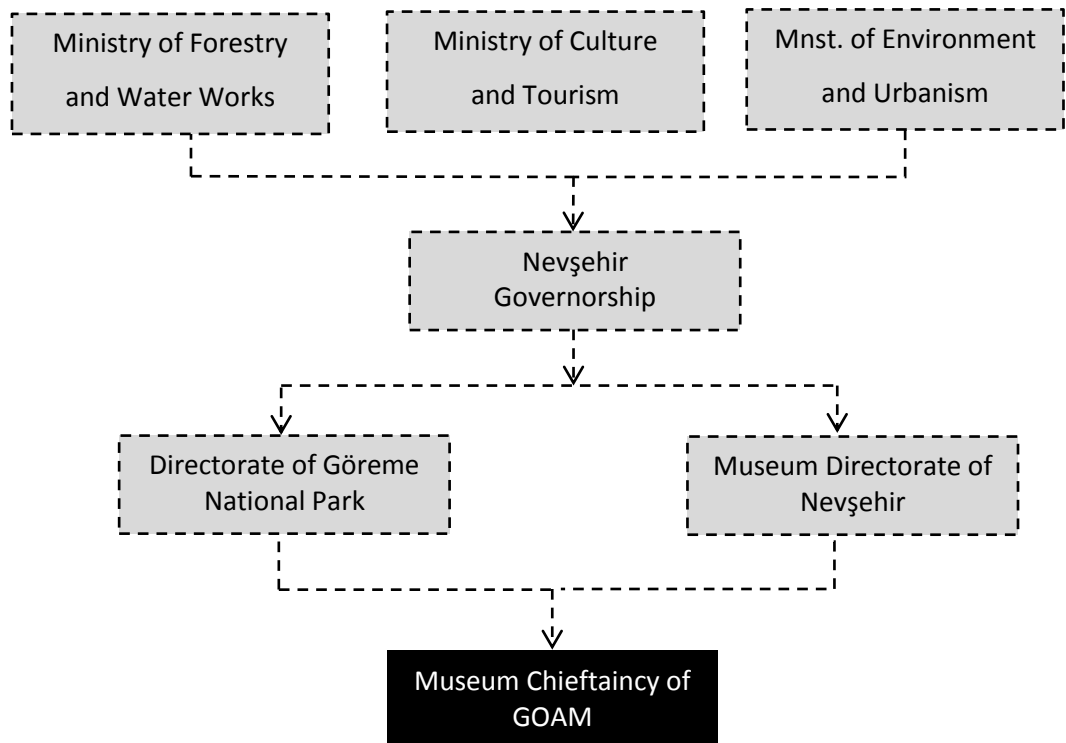
5.1.3. MANAGEMENT, SECURITY AND MONITORING IN “GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT”

In the scope of the GOAM EDP, decisions regarding management, security and monitoring of the museum is stated In order to facilitate the proper functioning of services regarding presentation, interpretation, use, safeguarding of the museum values, and security of visitors inside the museum and provide coordination between services in GOAM. According to new services offered in Göreme Open Air Museum, museum’s organization structure will be reconsidered (Table 24). GOAM Chief, who is the head of GOAM Museum Chieftaincy organized under the authority of Nevşehir Museum, will be responsible for controlling all the services presented in the museum. In addition to Museum Chief and his/her assistant, employees – who are whether state officers or workers of private enterprises – will be hired in order to provide security in the museum, guidance throughout museum visit, on-site and off-site interpretive activities, eating –

drinking and shopping facilities, cleaning and maintenance of the museum, monitoring and technical support.

“Museum Chieftaincy of GOAM” will be under control of Ministry of Forestry and Water Works, Ministry of Culture and Tourism, Ministry of Environment and Urbanism in national scale. In regional scale, Museum Directorate of Nevşehir which is branch of Nevşehir Governorship will control the “Museum Chieftaincy of GOAM”. Museum Chieftaincy of GOAM will be located at the museum with all of its personnel, so that problems of the museum will be intervened by the first hand and the needs of museum will be answered in direct manner. While alike administrative structure is proposed for GOAM in the thesis, main difference between current and proposed GOAM administrative structures is separation of GOAM museum management from the Nevşehir Museum Directorate and setting new chieftaincy only responsible for GOAM but under responsibility of Nevşehir Museum Directorate in the museum site. In addition, all the facilities and services presented in the museum will be managed in GOAM Museum Chieftaincy under the control of Museum Director.

Table 24 Proposed Organization Scheme in GOAM



Facilities and services offered by Museum Directorate in GOAM are divided into six branches in the scope of GOAM EDP: Administration, Security and Control, On Site and Off-Site Interpretation, Café and Shop, Cleaning and Maintenance, and Monitoring (Table 25). First two of these branches, Administration and Monitoring in GOAM will be conducted by officers commissioned by government. The other branches; security and control, on-site and off-site interpretation, cafeteria and shop, and cleaning and maintenance will be offered by private enterprises under the control of museum directorate.

Administrative structure of the museum will be composed of Museum Chief with Secretary, Museum Chief Assistant and Accountant who are state officers assigned by Museum Directorate of Nevşehir. Profession of GOAM Chief will be archaeology or architecture. This is because; the museum chief should understand the significance of the GOAM and also must be aware of the values of the museum. There must be one GOAM Museum Chief and GOAM Museum Chief Assistant. Same as Museum Chief, profession of GOAM Museum Chief Assistant must be archaeology or architecture due to same reason.

In addition to museum chief, his/ her assistant, his/ her secretary and accountant, a specialist who evaluates feedback from monitoring activities will be employed as a state officer. Specialist who is responsible for monitoring activity control the destruction of the museum values by visitor use.

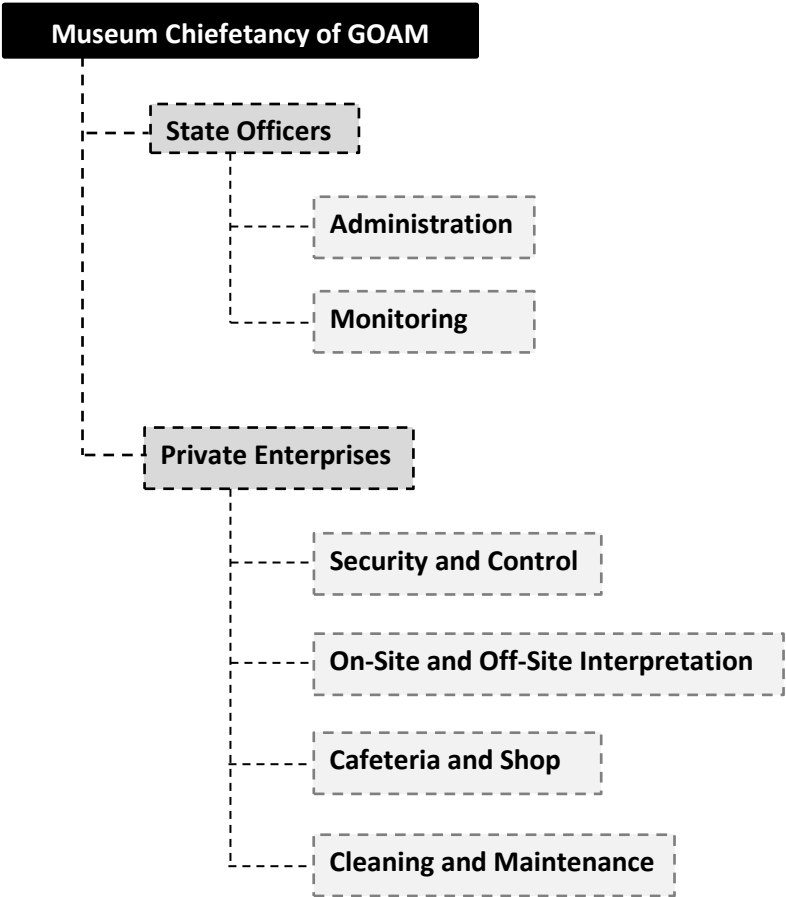
On the contrary to services provided by state officers, “security and control” will be provided by the private enterprises as mentioned earlier. Security guards will be employed in order to ensure safeguarding of rock blocks and rock cut spaces and safe visit for visitors. In addition to security guards, church guards will be employed for each rock cut spaces which are open to public who control visitors inside rock cut spaces and direct visitor flow in museum trail. There are 14 churches that are open to public and need church guards. The museum is open between eight o’clock in the morning and five o’clock in the evening and seven days a week in winter and between eight o’clock in the morning and eight o’clock in the evening in the summer. In such a long work hours, church guards should work by shifts. Consequently, 28 church guards are needed in order to provide effective guarding. Security guards and church guides will be trained not

also about protection and conservation of cultural heritage but also rules and regulations of GOAM.

“On-site and Off-site Interpretation Activities” will be provided in the consent of Interpretation Activities Director who is employee of private enterprise responsible for the interpretation activities in GOAM. These on-site and off-site interpretive opportunities such as websites, brochures, and guided trails will be constantly revised and updated according to feedback from the visitors by interpretive activities director. According to constant revisions of on-site activities, repeated visitation will be promoted. Moreover, if necessary security measures and lighting of museum is taken into account, GOAM will be open to visit at night also in special days and night activities by paying extra fees such as concerts and full moon tours will be suggested. Site guides, who are local residents of surrounding towns, will be trained in order to accompany visitors and interpret the museum throughout their museum visit. In addition, technicians will be hires in order to maintain the interpretive infrastructure. There are two “Café and Restaurant” in GOAM: the one is in Visitor Center and the other is at the end of museum excursion. In addition to Café and Restaurants, souvenir shops are located in GOAM. In order to provide these facilities in enjoyable environment; cook, waiters, cleaners and shop assistants are employed by the private enterprises that operate these services. “Cleaning and Maintenance” is important in order to provide healthy environment and safe visit for visitor. In order to clean the physical environment of the museum and maintain the technical infrastructure in GOAM, cleaners and technician are employed.

In accordance with these preliminary decisions on visitor scenarios; physical interventions and management, security and monitoring of GOAM; Environmental Design Project is realized. In the content of “GOAM Environmental Design Project”, new buildings and open areas are designed in order to improve visitor facilities and present enjoyable and easygoing museum visit. In addition, street furnitures are designed in order to enrich visitors’ museum experience. Authors’ proposition for GOAM Environmental Arrangement Project is mentioned and illustrated by the drawings and 3D in the upcoming chapter.

Table 25 Facilities and Services Proposed in GOAM



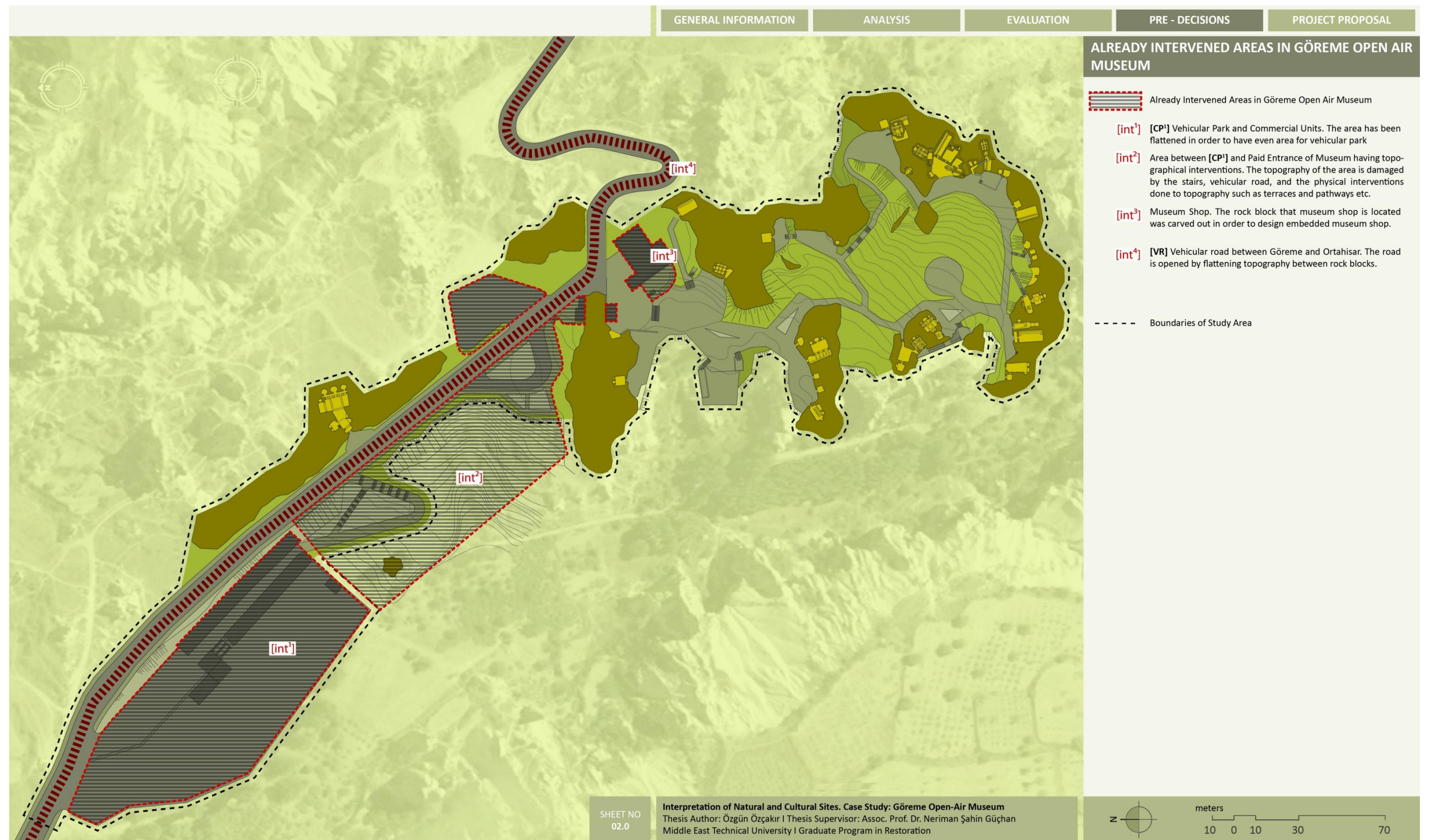


Figure 111 Already Intervened Areas in Göreme Open Air Museum

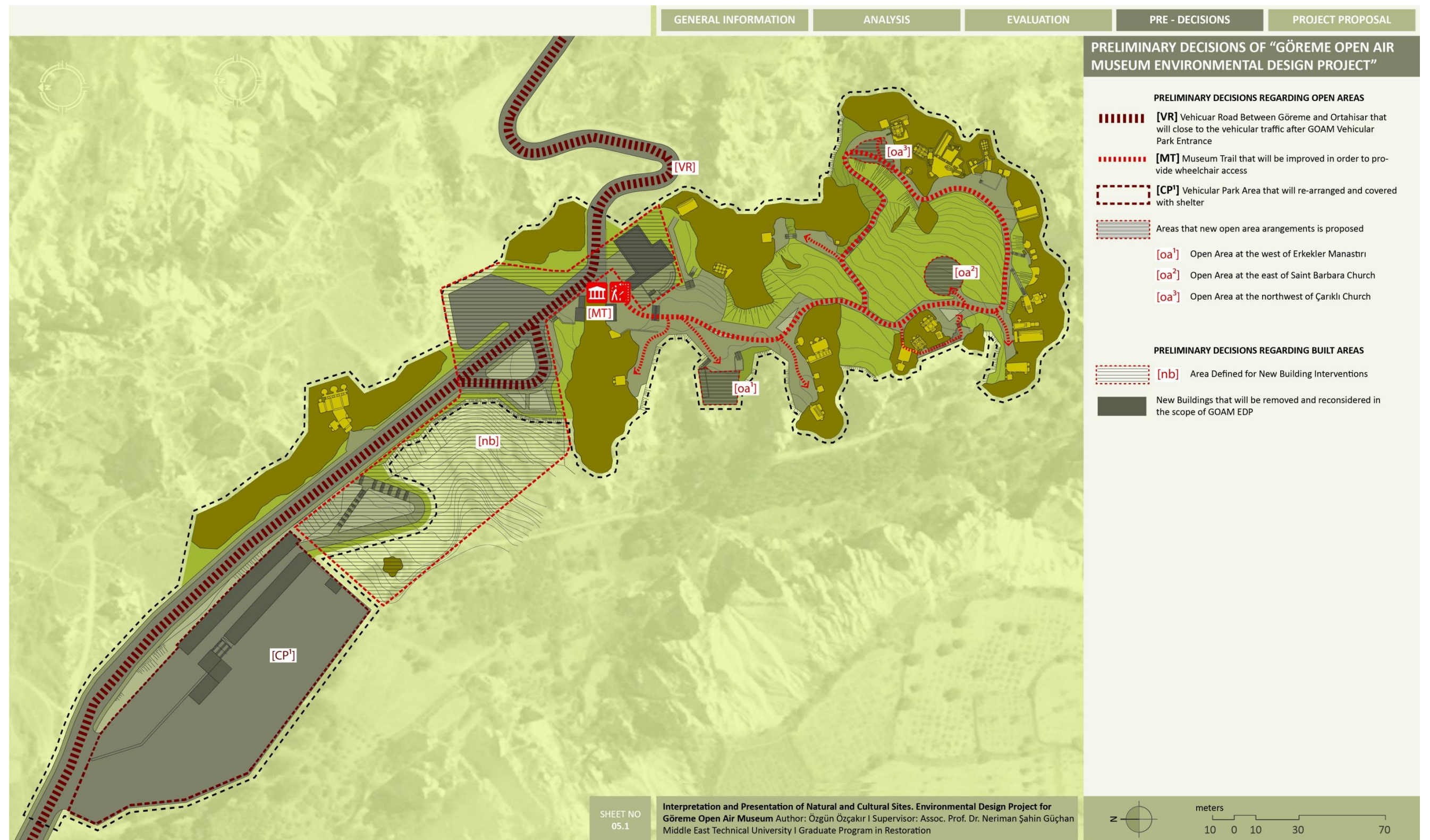


Figure 112 Preliminary Decisions of "Göreme Open Air Museum" Environmental Design Project

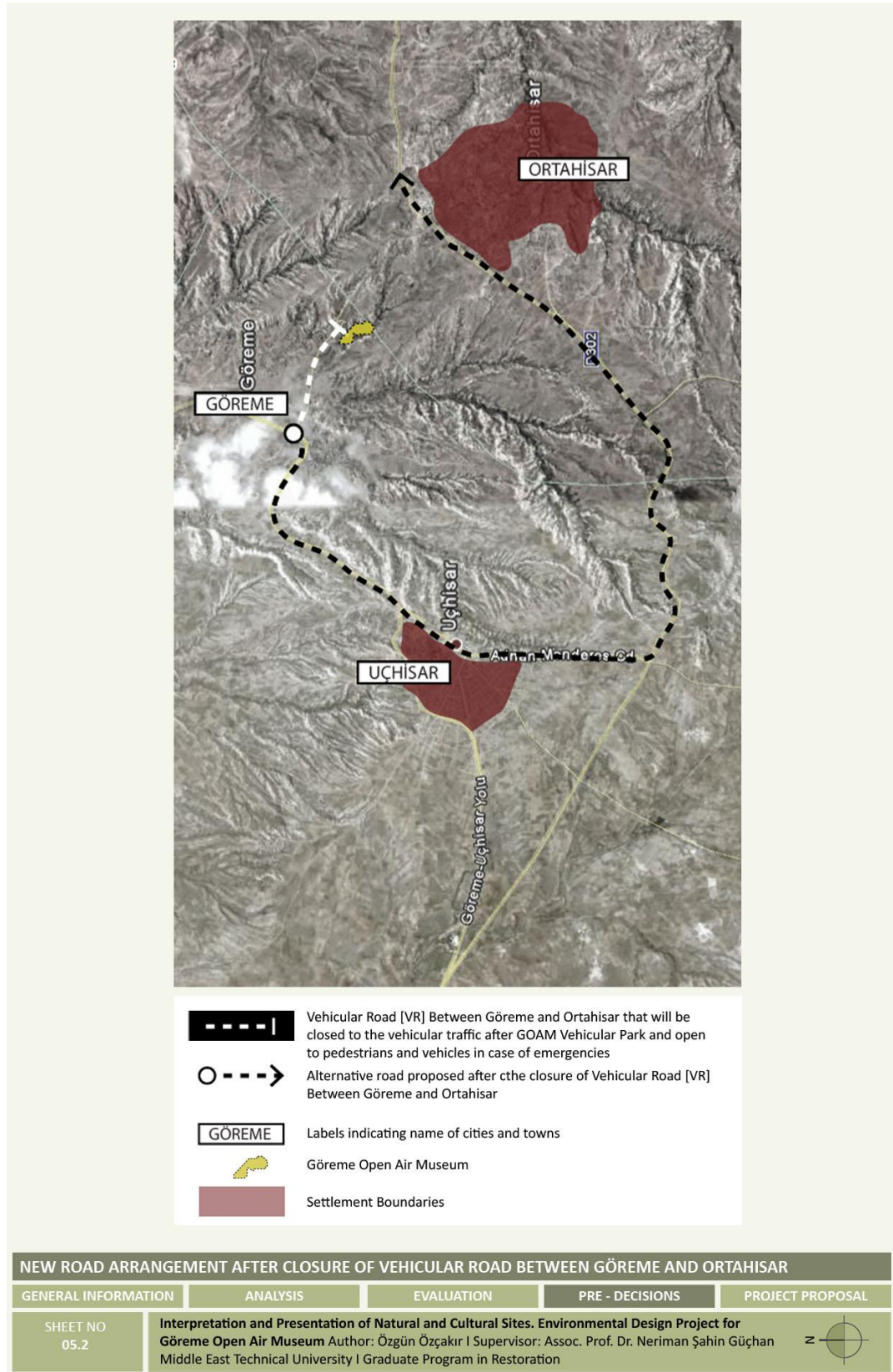


Figure 113 New Road Arrangement After Closure of Vehicular Road Between Göreme and Ortahisar

5.2. PROPOSAL: GÖREME OPEN AIR MUSEUM (GOAM) ENVIRONMENTAL DESIGN PROJECT

Environmental Design Project is an instrument that enriches visitors' experiences during their site excursion through providing effective presentation of the site with various interpretive opportunities, controlling visitor use and offering supplementary services such as restrooms, shops and cafés via physical and administrative interventions. In order to constitute intervention decisions, analysis and evaluation of the heritage site should be done precisely and preliminary decisions must be carefully declared. Afterwards, Environmental Design Project based on preliminary decisions should be prepared and presented by the help of architectural drawings and 3D models. In this part of the thesis, "Göreme Open Air Museum Environmental Design Project" is proposed by giving references to preliminary decisions stated in previous chapter.

Visitors' experience during their Göreme Open Air Museum is the source of inspiration of the environmental arrangement project. In GOAM, visitors walk through rock blocks and enter rock cut spaces carved into rock blocks throughout the museum trail. Consequently, visitors both experience spectacular landscape of GOAM outside rock cut spaces and cultural values of GOAM inside rock cut spaces together. Such an integrated museum experience during visitors' museum excursion promises unique site visit. In that respect, open areas and built areas are considered in a holistic manner in the designation of GOAM Environmental Design Project in order to present visitor experience in the most impressive way. In accordance with all of these strategies, visitors' integrated museum experiences consisting of spectacular landscape and cultural values of rock cut spaces in museum trail are reinterpreted in the open area arrangements and new building designs. Thus, interventions on open areas and built areas are considered as interconnected to each other.

In GOEM EDP, current Museum Trail [MT] is designed as a part of new pedestrian loop which is considered as a spine for new open area arrangements and constructions. A new pedestrian loop – in the other word "the spine" – starts in the vehicular park, continues through the visitor facilities and open air museum, then finally finishes in the vehicular park again which is main arrival and departure point of "the spine" in proposed GOAM EDP (Figure 114). In the following part of the thesis, first proposed GOAM EDP will be

described generally; afterwards visitors' practices throughout "the spine" are detailed by giving references to architectural drawings and 3D models of the project.

As mentioned in the preliminary decisions, Vehicular Road Between Göreme and Ortahisar [VR] will be closed to the vehicular traffic and vehicles are directed to [CP¹] vehicular park. In the scope of GOAM EDP, a part of [CP¹] will be re-arranged for the use of various types of vehicles such as personal cars, tour buses, bikes, and motorcycles and covered with shelter in order to prevent visual pollution caused by vehicles. The remaining part of the vehicular park is designed as a gathering area where is equipped with street furniture.

According to GOAM EDP, all of the manmade landscape elements throughout the [MT] Museum Trail are removed due to not being designed comprehensively except fountain on museum trail and they will be re-designed. Pedestrian loop "the spine", which starts from vehicular park, goes through visitor center, and returns back to vehicular park again, is proposed in two different levels for visitors going to and coming back from museum trail. The line having 1,5 meters with covered with TARMAC material and equipped with apparatuses that provide easygoing visit for wheelchair users is designed. Pedestrian loop goes through embedded to the ground from visitor center to museum trail in order to emphasize perspectives of rock blocks at the entrance of museum trail and provide dramatic transitions by the help of tension between bounded/narrow and open/wide areas.

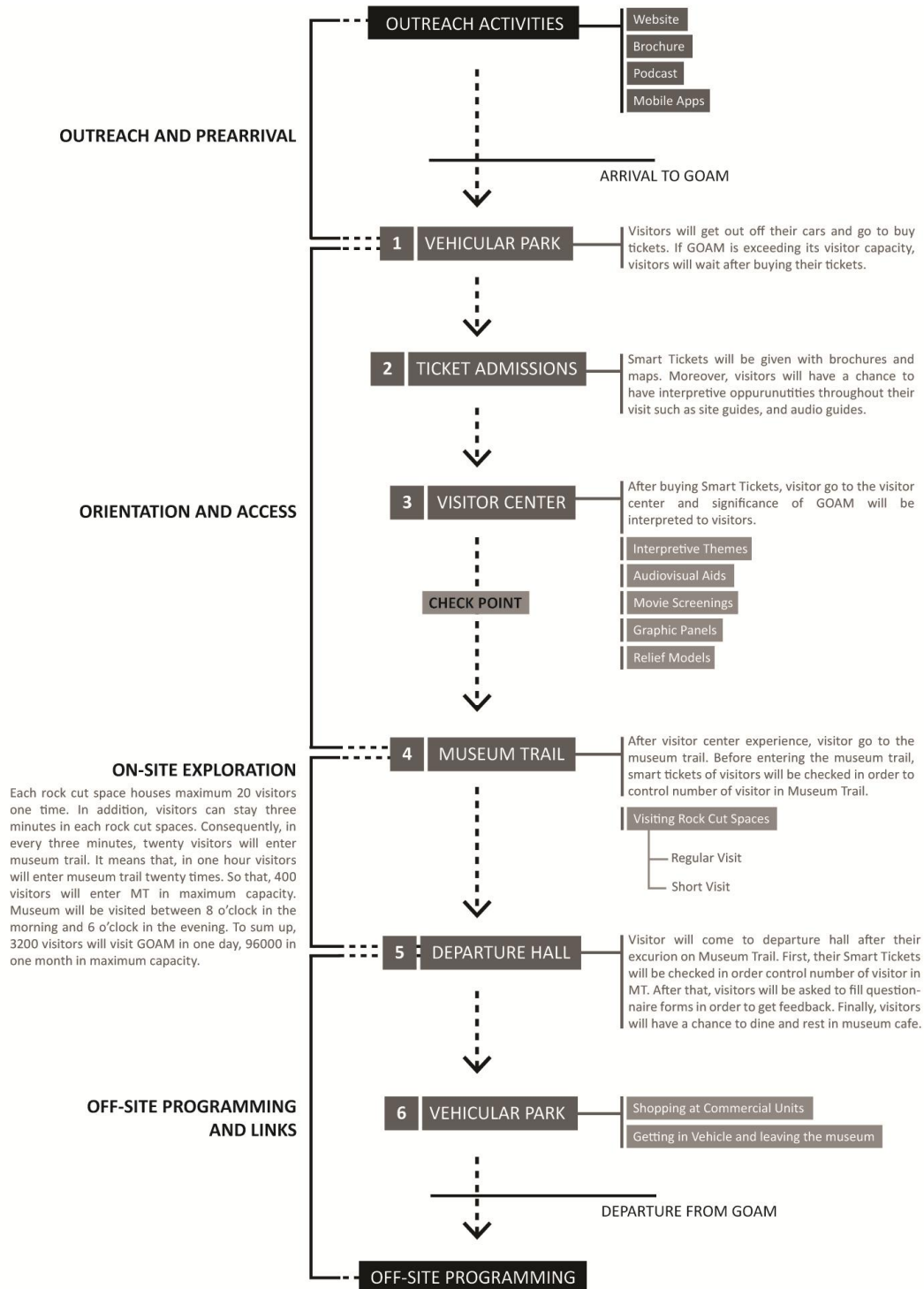
In addition, all the new buildings and temporary shelters is removed except [F] WC located in the museum trail because of not only constructing embedded to the ground and not obstructing values of GOAM but also need for resting area on Museum Trail because of the long distance of other resting areas. Entire of the new buildings, which are designed as an integral part of pedestrian loop "the spine", are proposed in the inclined area between vehicular park and museum trail entrance and designed as a part of the landscape.

Under the light of these general descriptions about proposed GOAM EDP, visitors' museum experience throughout "the spine" by giving references to their practices in both open and built areas are mentioned below (Figure 115). As indicated before, visitors' museum excursion starts at the vehicular park in GOAM EDP (Table 26). After they leave their vehicles at the park, they go to the gathering area equipped with street

furniture where long rock block formations are located. Afterwards, they climb stairs going through ticket office by looking to exhibition displays at the left and Cappadocia landscape at the right (Figure 116). Exhibition displays located at the left gives brief information on the significance of Cappadocia and Göreme Open Air Museum by the help of audio visual materials. Then, they reach ticket office where they buy their tickets and choose the interpretive opportunity that will accompany throughout their visit. After that, they leave ticket office and go to audiovisual rooms located at the right in order to see documentaries, and movies about GOAM. Afterwards, they climb stairs on “the spine” which is embedded in the ground through the visitor center where interpretive themes are introduced to the visitors by the use of various interpretive opportunities such as audiovisual aids and graphic panels. During their visitor center visit, visitors have a chance to rest and have snacks in the cafeteria having panoramic Cappadocia view located in the visitor center. Then, visitors see audiovisual show in visitor center and go to see 3D relief model of Göreme Open Air Museum (Figure 117). Consequently, visitors continue their way in “the spine” and go to the check point before entering the museum trail. In the checkpoint, they show their tickets to the guards and they reach to museum trail. Throughout the museum trail, visitors experience rock cut church as in the mentioned sequence in the preliminary decisions and they complete their loop inside the museum. Next, visitors continue their way on “the spine” at the upper level and they go to Tokalı Church. After visiting Tokalı Church, they go to building where they show their smart tickets to the museum officers in order to control total number of visitors inside the museum. After that, visitor goes to the museum restaurant and shop with panoramic Cappadocia view. Subsequently, visitors leave museum restaurant and shop and go through commercial units adjacent to “the spine”. Then, they reach vehicular park and leave the museum.

3D computer generated model of proposed new buildings and open areas between outreach and pre-arrival and on-site exploration sections of visitors’ GOAM excursion is shown in Figure 118.

Table 26 Proposed Visitor Scenario for GOAM EDP



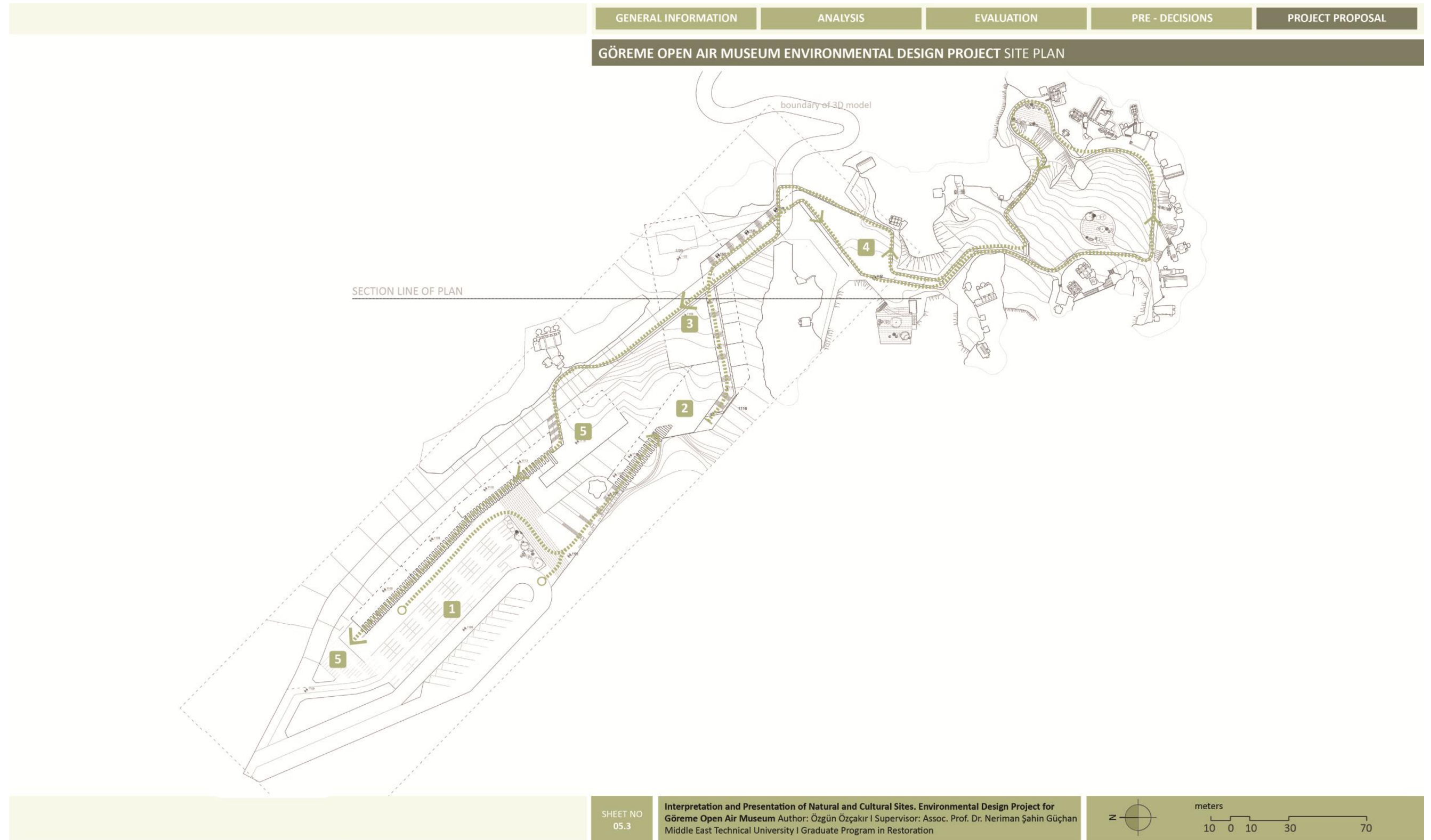


Figure 114 Göreme Open Air Museum Environmental Design Project: Site Plan

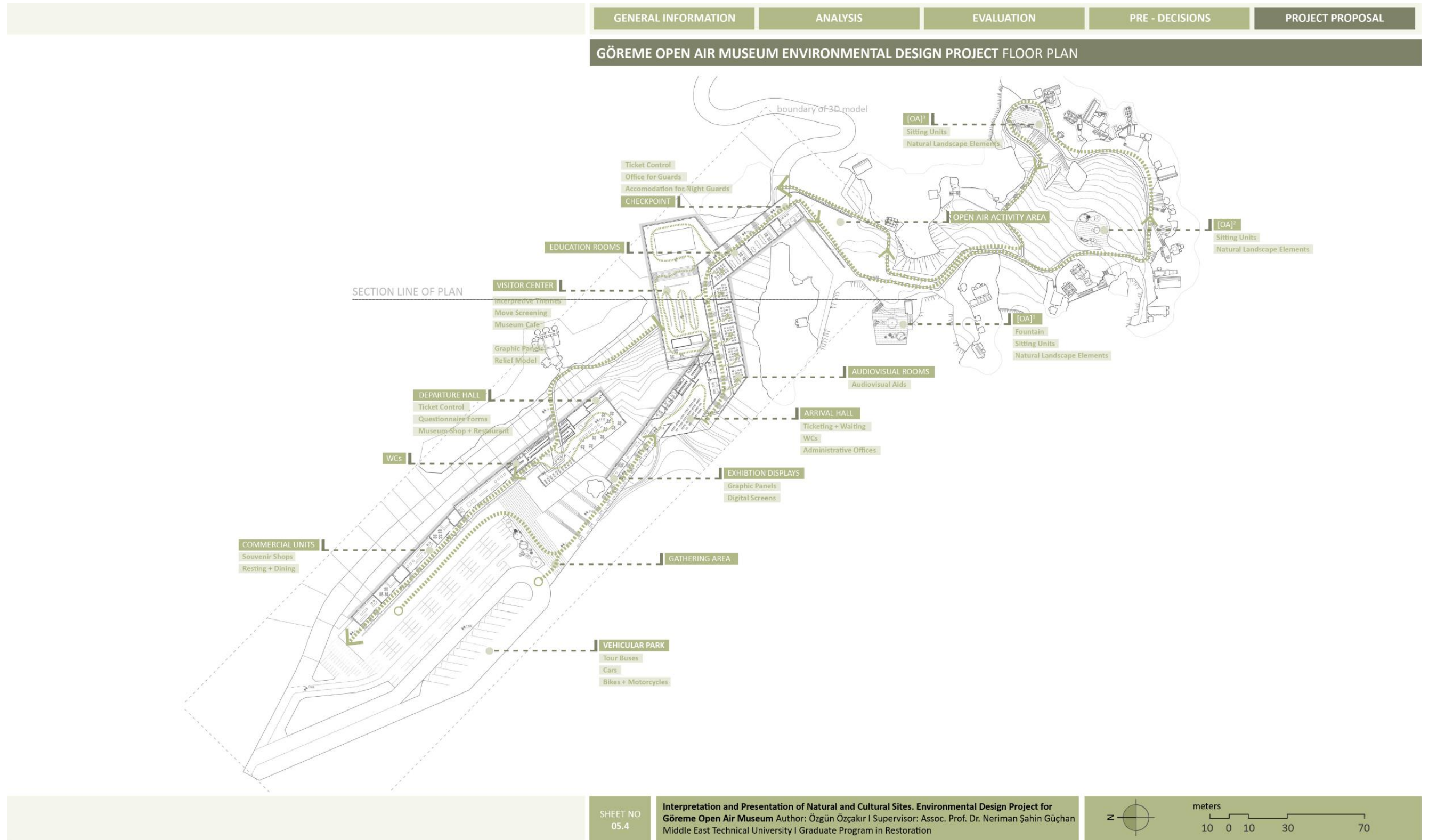
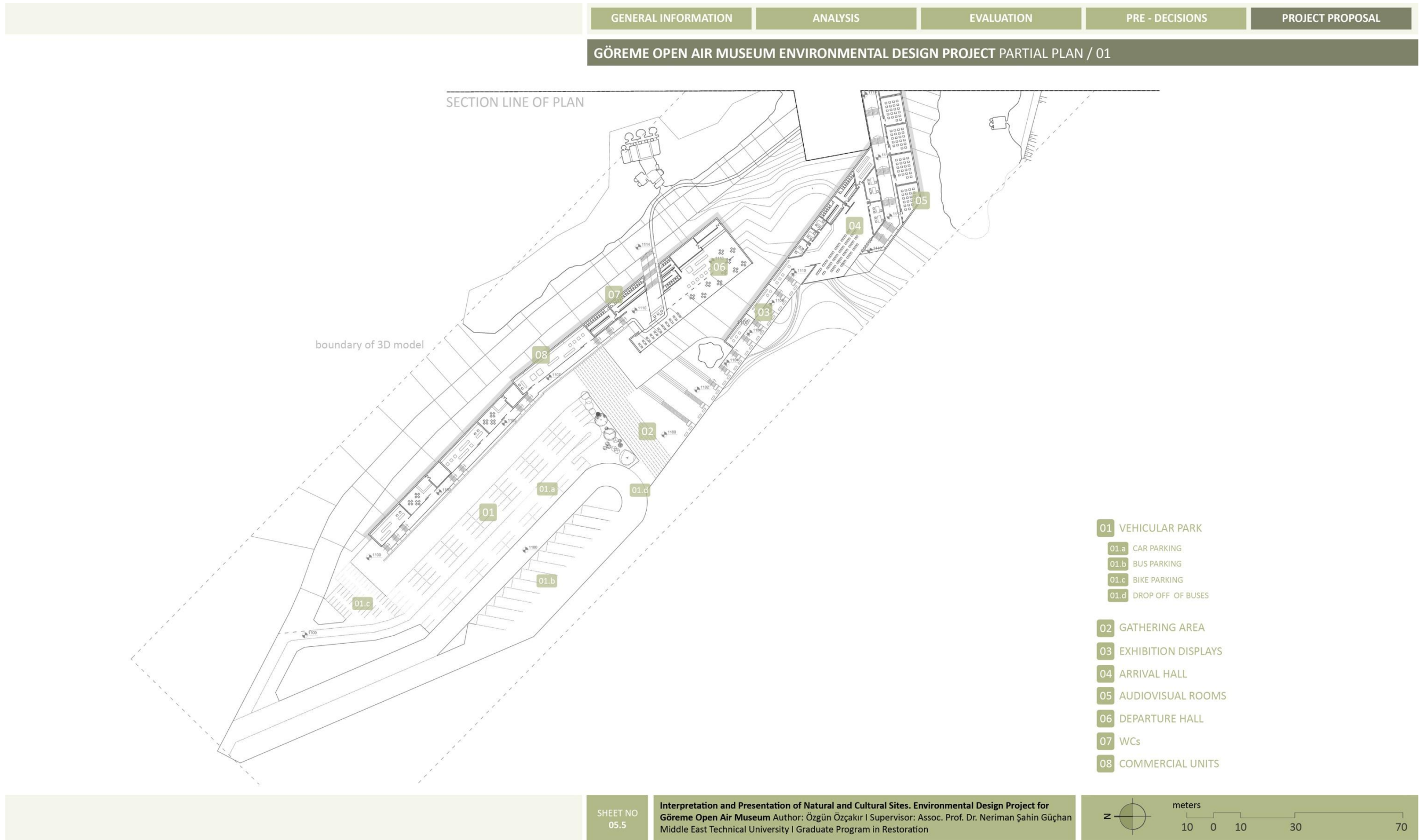


Figure 115 Göreme Open Air Museum Environmental Design Project: Floor Plan



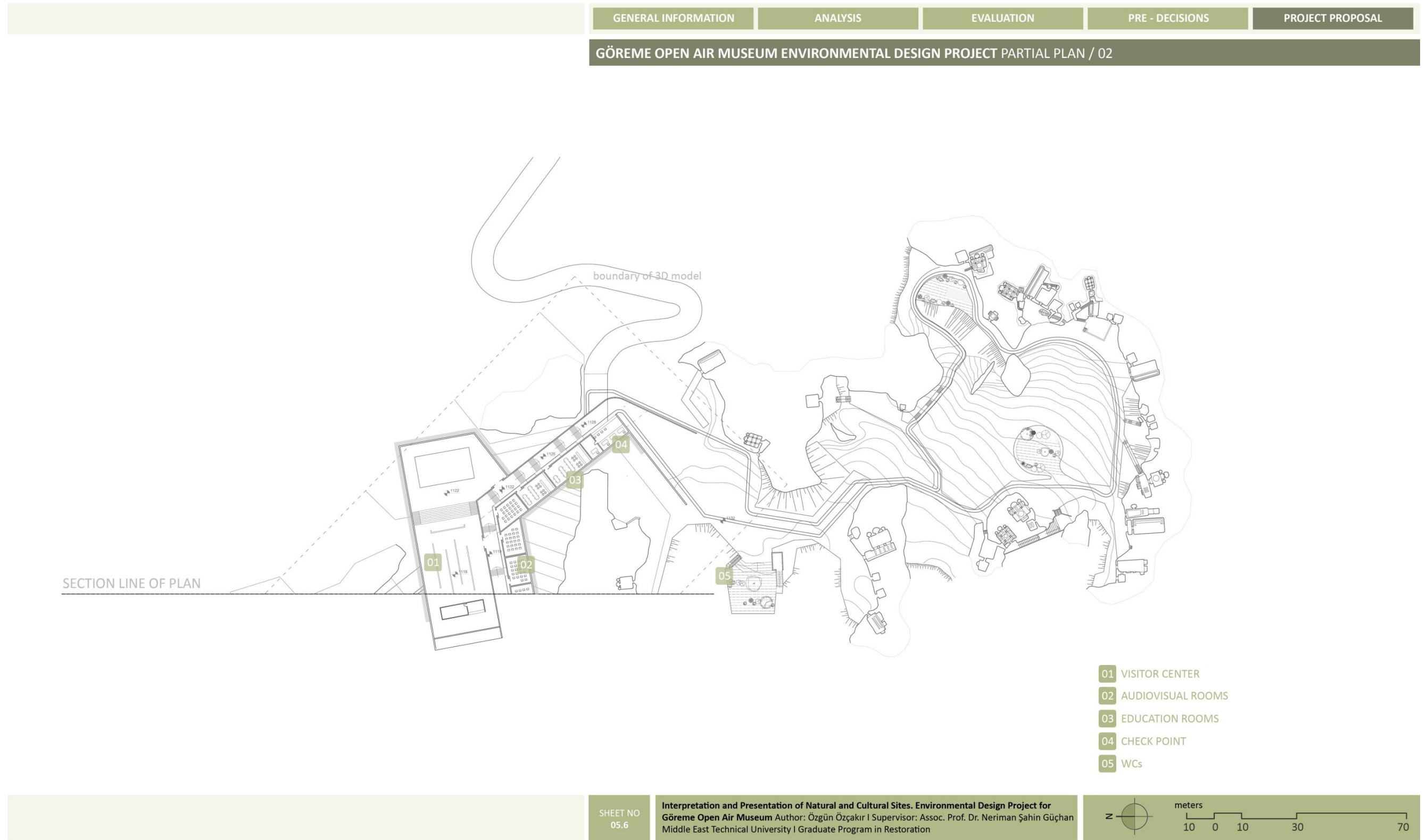


Figure 117 Göreme Open Air Museum Environmental Design Project: Partial Plan / 02

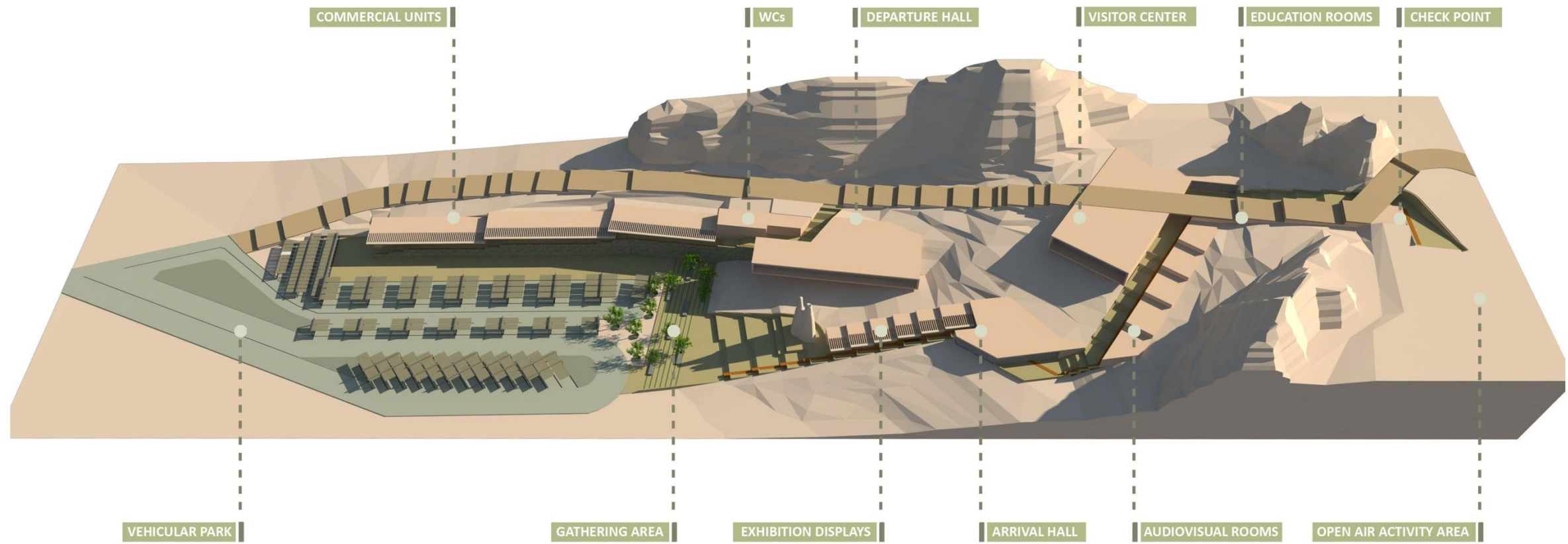


Figure 118 Göreme Open Air Museum Environmental Design Project: 3D Rendering / 01



Figure 119 Göreme Open Air Museum Environmental Design Project: Before and After Interventions

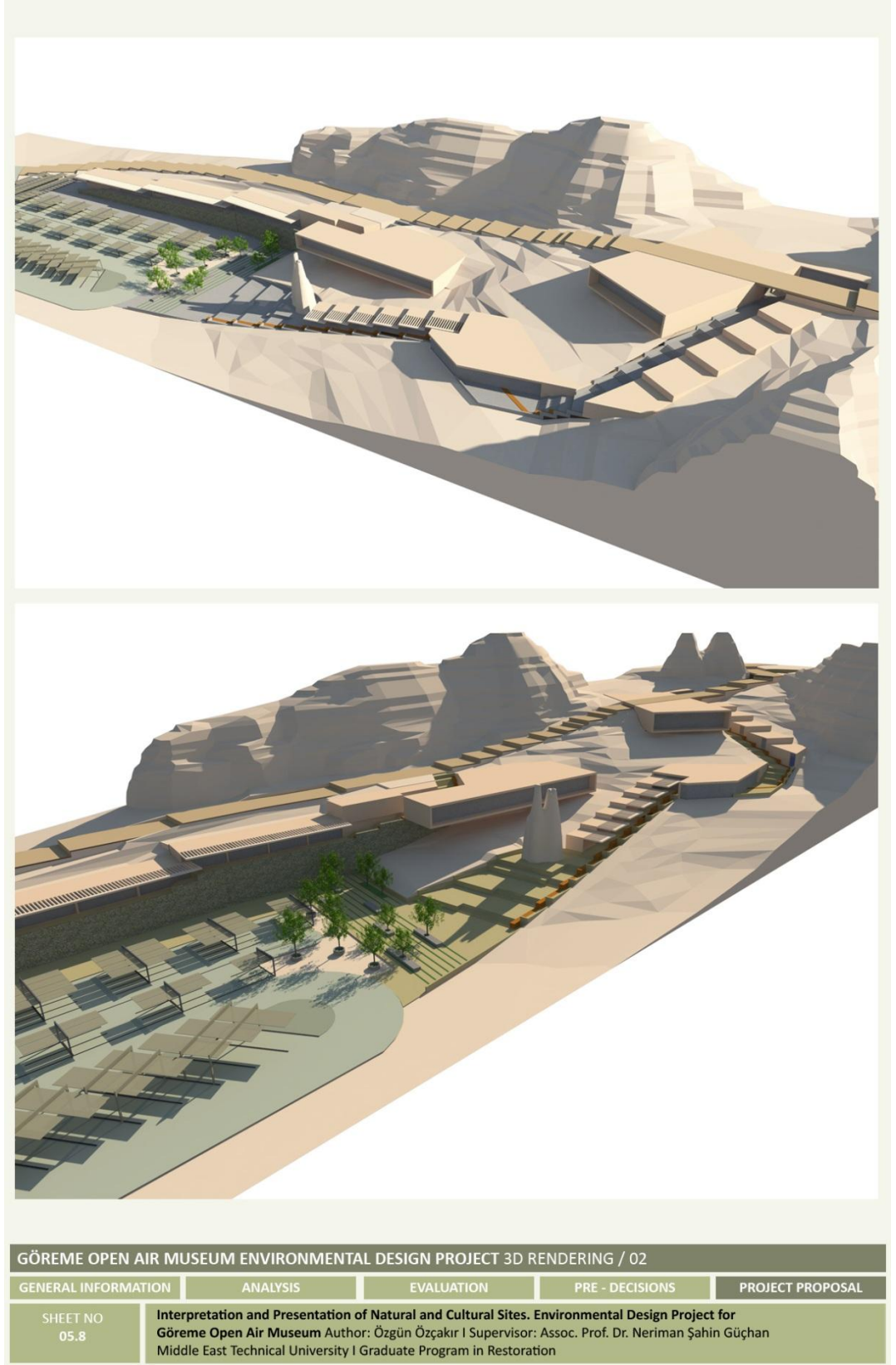
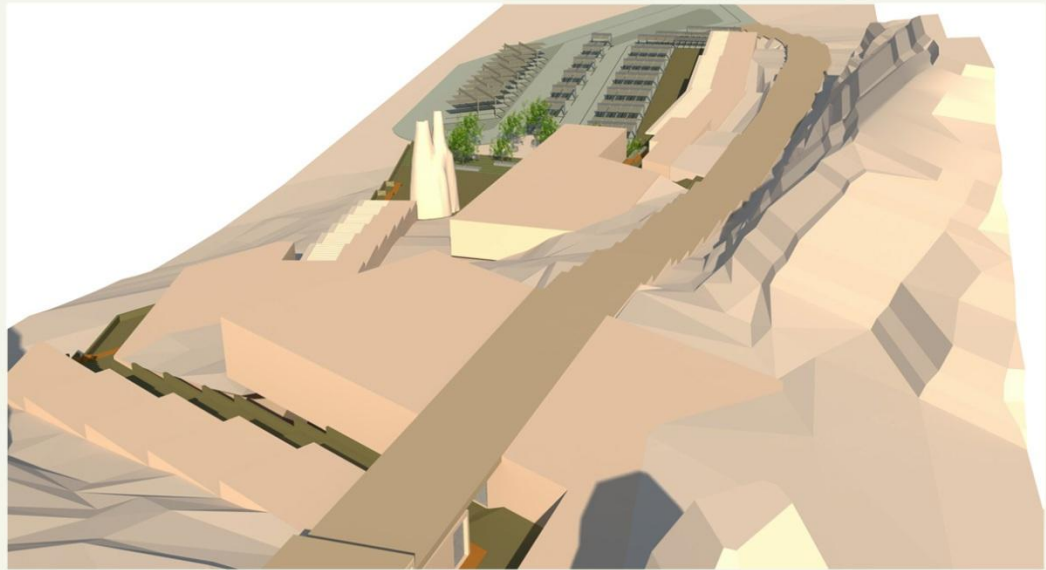
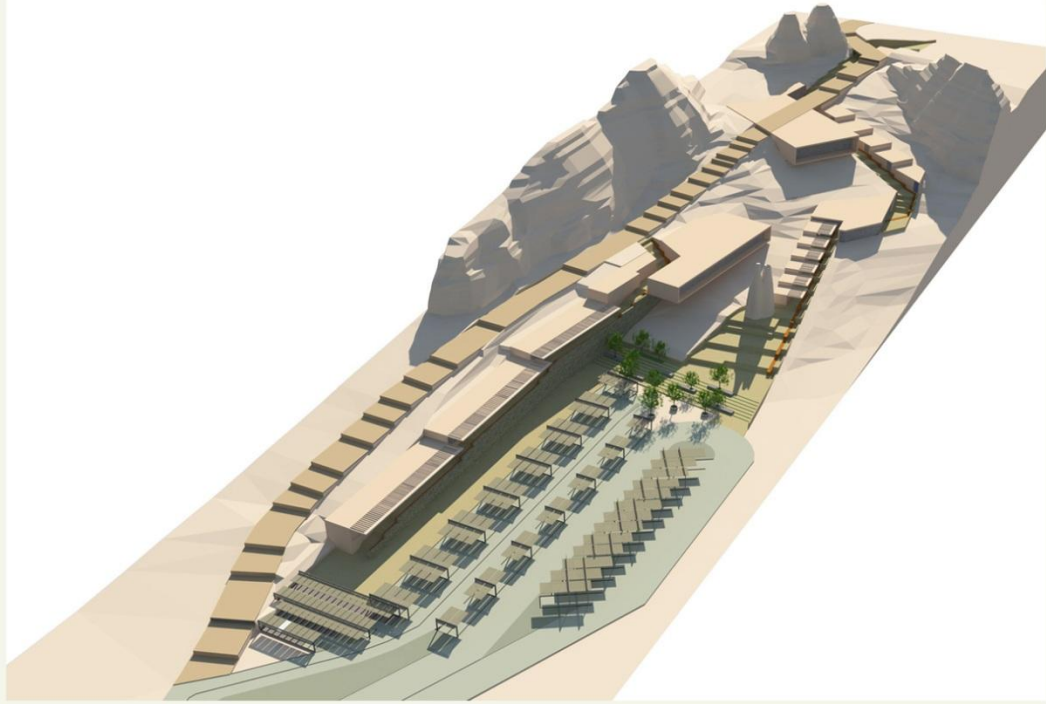


Figure 120 Göreme Open Air Museum Environmental Design Project: 3D Rendering / 02



GÖREME OPEN AIR MUSEUM ENVIRONMENTAL DESIGN PROJECT 3D RENDERING / 03

GENERAL INFORMATION	ANALYSIS	EVALUATION	PRE - DECISIONS	PROJECT PROPOSAL
SHEET NO 05.8	Interpretation and Presentation of Natural and Cultural Sites. Environmental Design Project for Göreme Open Air Museum Author: Özgün Özçakır Supervisor: Assoc. Prof. Dr. Neriman Şahin Güçhan Middle East Technical University Graduate Program in Restoration			

Figure 121 Göreme Open Air Museum Environmental Design Project: 3D Rendering / 03

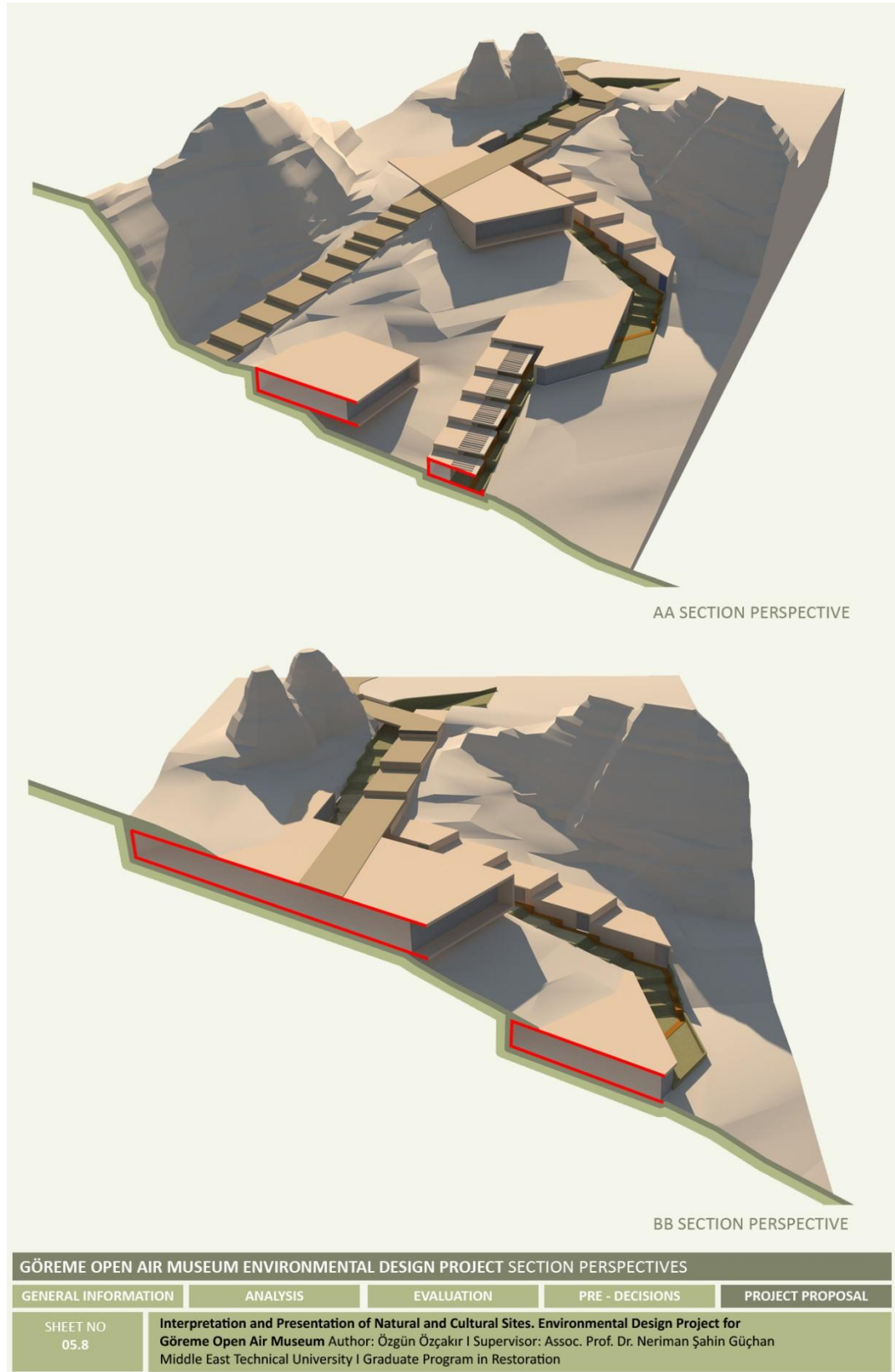


Figure 122 Open Air Museum Environmental Design Project: Section Perspectives

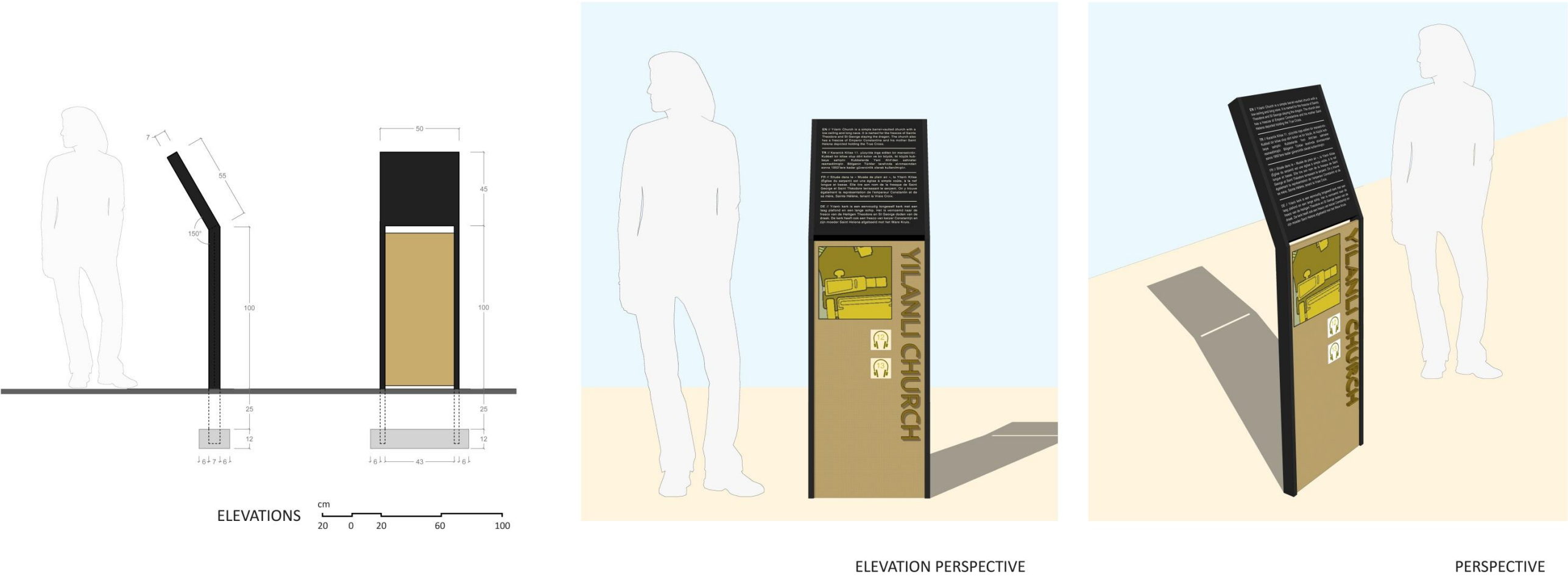


Figure 123 Interpretive Panels Proposed in the Scope of GOAM EDP

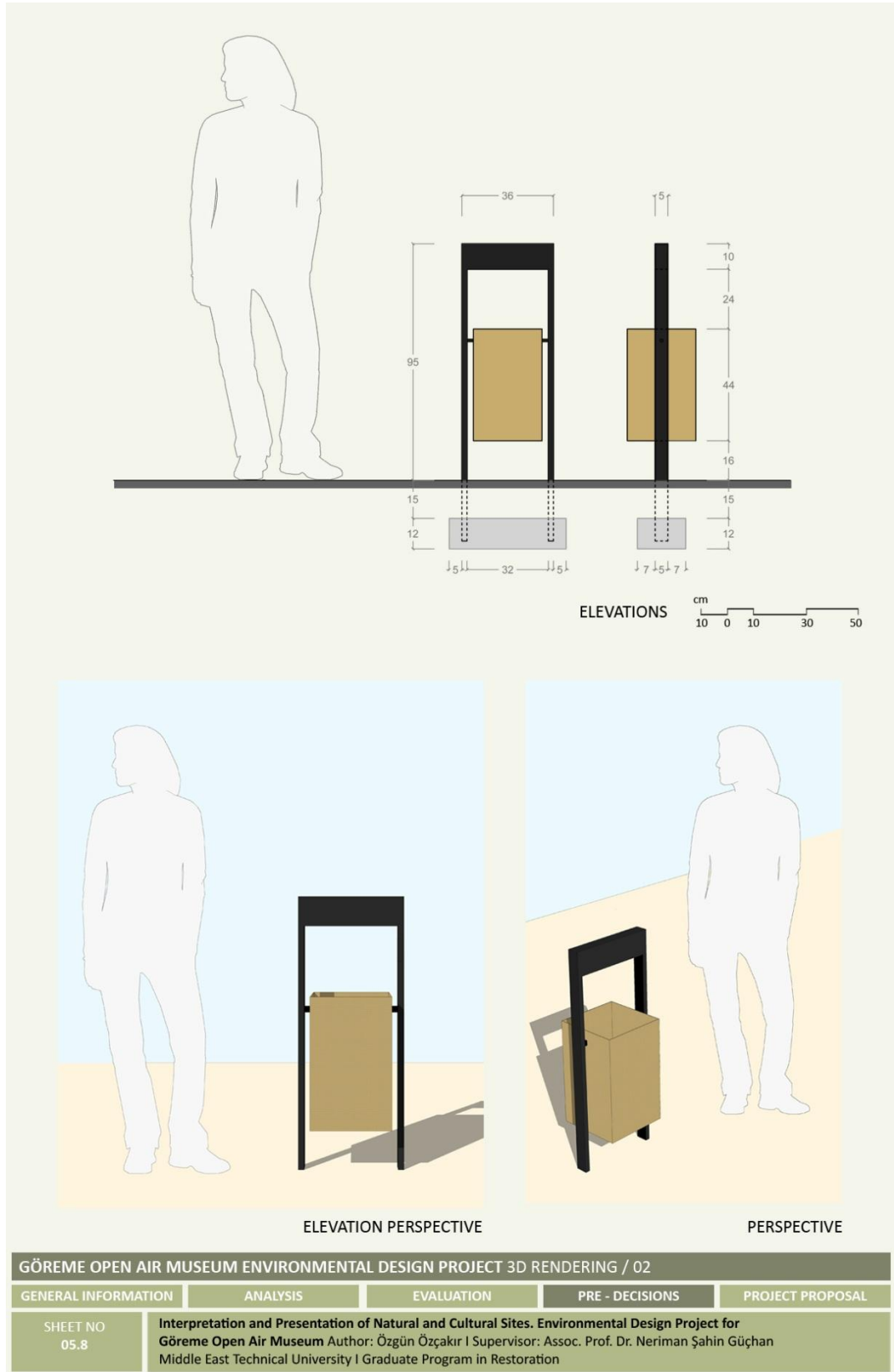


Figure 124 Trash Bins Proposed in the Scope of GOAM EDP

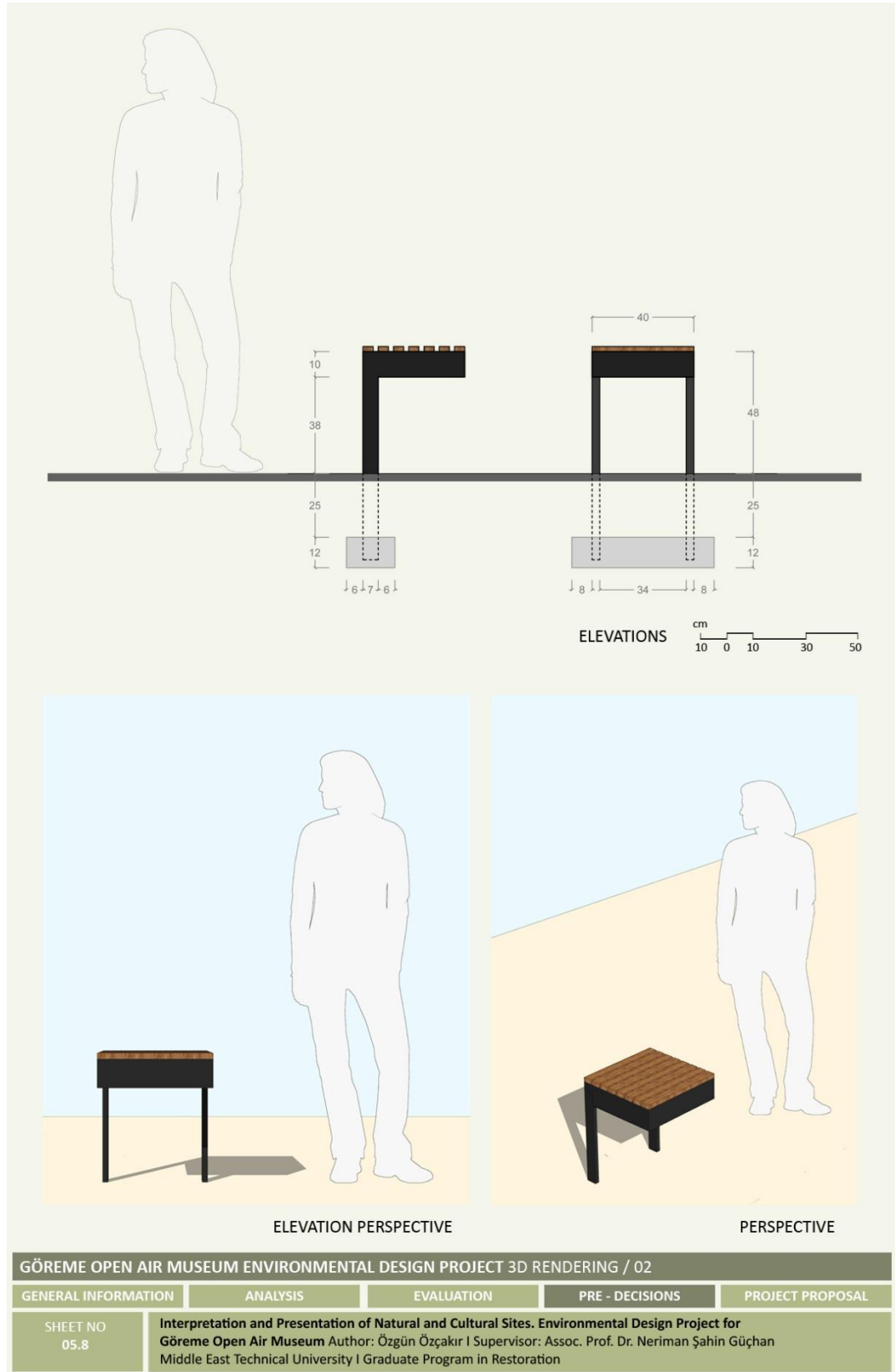


Figure 125 Sitting Units for Church Guides Proposed in the Scope of GOAM EDP

CHAPTER 6

CONCLUSION

The problem of “interpretation” and “presentation” in addition to preparation of environmental design projects is discussed in this thesis.

In the thesis, Göreme Open Air Museum in Cappadocia is chosen as a case study for the proposition of environmental design project. GOAM has been subject to many interventions regarding interpretation and presentation since it has opened its gates to the public in 1956. On the contrary to many interventions, problem of interpretation is not completely solved in the museum. In that respect, problems regarding interpretation and visitor facilities are aimed to solve with the aid of comprehensive and complementary GOAM EDP in the scope of this thesis.

The proposition of Environmental Design Project for natural and cultural heritage sites require comprehensive analysis of current state of the heritage sites under the titles such as access and traffic, natural and manmade landscape elements, viewing points, building types, and visitor use etc. in order to deeply understand the heritage site. After comprehending general characteristics of GOAM, current state of the museum should be evaluated in a precise manner by giving references to analysis. Consequently, environmental design project should be proposed according to evaluations to emphasize the values of the museum and solve problems regarding visitor use, interpretive services etc.

This thesis has a manifold content consisting of conceptual background of interpretation/ presentation in the world and in Turkey, analysis and evaluation of current state of GOAM and finally preliminary decisions and GOAM EDP proposal.

Following brief introduction of the thesis in the first chapter, conceptual background of interpretation/ presentation in international context is mentioned in the second chapter. Afterwards, environmental design project and its interrelationship between heritage

interpretation/ presentation are described as stated in Turkish legislations by keeping in mind that EDP is an integral part of heritage management in the same chapter. In the third chapter, after mentioning location, history and geography of GOAM and Cappadocia, comprehensive analysis of current state of the museum is conducted by considering natural, historical, physical and administrative aspect of the museum. Subsequently, current state of GOAM is evaluated according to values, problems and potentials of the museum in the fourth chapter. Finally, preliminary decisions are developed according to evaluations in order to solve problems of the museum and emphasize its values. Consequently, GOAM EDP is proposed under the light of defined principles.

These preliminary decisions for appropriate environmental design project are suggested in order to interpret GOAM to visitors in proper manner by considering its values and enrich visitor experiences in the museum by the proper designation of open and built areas and visitor management. As a result of proper environmental design project, the deterioration caused by the uncontrolled visitor use is reduced, the effective time that visitors spent in the museum is increased, economical sustainability of the museum is provided by the repeated visitation and safeguarding of the museum values is obtained.

Since attitudes of architects and designers to the question of GOAM EDP vary from one to another, the proposed preliminary decisions and principles for effective GOAM EDP do not aim to offer prototype to the problem of GOAM EDP. Instead, these principles must be taken into account as criteria that guide architects and designers in the preparation of GOAM EDP. In a similar manner, GOAM EDP proposed in the scope of the thesis is not considered as one and only project which is imposed to the site. GOAM EDP proposal should be seen as an alternative produced by applying preliminary decisions and design principles.

To conclude, GOAM EDP which is proposed in the thesis should be considered as a part of a comprehensive and complementary long term development and conservation management plan of Cappadocia to be prepared in the future. In such an action, GOAM EDP should be integrated to long term development and management plan with its administrative structure and interpretive activities.

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APPENDIX A

VISITOR INTERVIEW SHEETS

GÖREME AÇIKHAVA MÜZESİ ZİYARETÇİ ANKETİ				
Anketi dolduranın;				
Eğitimi:	Mesleği:	Nerede Yaşadığı:	Yaşı:	Tarih: .. / 12 / 2011
1. Kapadokya bölgesini ilk kez mi ziyaret ediyorsunuz? <input type="radio"/> Evet <input type="radio"/> Hayır				
2. Kapadokya bölgesindeki başka hangi açık hava müzeleri/ müzeleri ziyaret ettiniz? <input type="radio"/> İhlara Vadisi <input type="radio"/> Kaymaklı Yeraltı Şehri <input type="radio"/> Özkonak Yeraltı Şehri <input type="radio"/> Derinkuyu Yeraltı Şehri <input type="radio"/> Zelve Açık hava Müzesi <input type="radio"/> Tatların Yeraltı Şehri <input type="radio"/> Nevşehir Müzesi <input type="radio"/> Ürgüp Müzesi <input type="radio"/> Diğer (Lütfen belirtiniz)				
3. Kapadokya bölgesindeki başka hangi yerleşimleri ziyaret ettiniz? <input type="radio"/> Çavuşin <input type="radio"/> Göreme <input type="radio"/> Ortahisar <input type="radio"/> Avanos <input type="radio"/> Diğer (Lütfen belirtiniz)				
4. Müzeye girişte Müze Kart mı kullandınız? <input type="radio"/> Evet <input type="radio"/> Hayır				
5. Göreme Açık hava Müzesi'ni ilk kez mi ziyaret ediyorsunuz? <input type="radio"/> Evet <input type="radio"/> Hayır (Bu kaçınıcı ziyaretiniz?)				
6. Göreme Açık hava Müzesi'ne nasıl geldiniz? <input type="radio"/> Özel Araç <input type="radio"/> Otobüs/ Minibüs <input type="radio"/> Bisiklet <input type="radio"/> Yürüyerek <input type="radio"/> Diğer (.....)				
7. Göreme Açık hava Müzesi'ne ulaşımın rahat ve kolay olduğunu düşünüyor musunuz? <input type="radio"/> Evet <input type="radio"/> Hayır, nedeni ...				
8. Göreme Açık hava Müzesi'ne tur kapsamında mı geldiniz? <input type="radio"/> Evet <input type="radio"/> Hayır				
9. Göreme Açık hava Müzesi'ni ziyaret amacınız nedir? <input type="radio"/> Turistik <input type="radio"/> Akademik <input type="radio"/> Diğer (.....)				
10. Göreme Açık hava Müzesi'nde ne kadar süreyle kaldınız? <input type="radio"/> 30 dakika <input type="radio"/> 1 Saat <input type="radio"/> 1 – 2 Saat <input type="radio"/> 2 – 4 Saat <input type="radio"/> 4 Saatten fazla				
11. Göreme Açık hava Müzesi neden ziyaret etmek istediniz? (Birden fazla işaretleyebilirsiniz) <input type="radio"/> Tarihi ve doğal önemi <input type="radio"/> Kiliseler ve duvar resimleri <input type="radio"/> Diğer (.....) <input type="radio"/> Nedenim yok				
12. Göreme Açık hava Müzesi'nin varlığından nasıl haberdar oldunuz? <input type="radio"/> Yol üstünden geçerken <input type="radio"/> İnternet üzerinden <input type="radio"/> Rehber Kitap <input type="radio"/> Gazete, dergi gibi yazılı yayınlardan <input type="radio"/> Yol üzerindeki yönlendirici tabelalardan <input type="radio"/> Tur programı dahilinde <input type="radio"/> Diğer (.....)				
13. Göreme Açık hava Müzesi'ni gezerken alan hakkında bilgi almak için aşağıdakilerden hangisini/hangilerini kullandınız? <input type="radio"/> Bilgilendirme Panoları <input type="radio"/> Rehber Kitap <input type="radio"/> Audio Guide (Sesli Rehber) <input type="radio"/> Rehber <input type="radio"/> Diğer (.....) <input type="radio"/> Alan hakkında bilgi almak için bir araç kullanmadım				
14. Göreme Açık hava Müzesi'ni gezerken alan hakkında bilgi almak için kullandığınız araçları yeterli buldunuz mu? Bilgi almak için kullandığınız araçları, yeterlilik derecesine göre puanlayabilir misiniz? (5 en yeterli – 1 en yetersiz) Bilgilendirme Panoları (Puan: ...) <input type="radio"/> Rehber Kitap (Puan: ...) <input type="radio"/> Audio Guide (Sesli Rehber) (Puan: ...) <input type="radio"/> Rehber (Puan: ...) <input type="radio"/> Broşürler (Puan: ...) <input type="radio"/>				
15. Göreme Açık hava Müzesi'ni gezerken bütün kaya oyma mekanları ziyaret ettiniz mi? <input type="radio"/> Evet <input type="radio"/> Hayır <input type="radio"/> Bilmiyorum				
16. Göreme Açık hava Müzesi'nde hangi kaya oyma mekanları ziyaret ettiniz? <input type="radio"/> Kızlar ve Erkekler Manastırı <input type="radio"/> Aziz Basil Kilisesi <input type="radio"/> Elmalı Kilise <input type="radio"/> Aziz Barbara Kilisesi <input type="radio"/> Yılanlı Kilise <input type="radio"/> Karanlık Kilise <input type="radio"/> Çankılı Kilise <input type="radio"/> Tokalı Kilise				
17. Göreme Açık hava Müzesi'nde bütün kaya oyma mekanları gezmediyseniz, nedeni nedir? <input type="radio"/> Giriş için fazladan ücret isteniyordu <input type="radio"/> Çok basamaklı merdivenlerden çıkmak gerekiyordu <input type="radio"/> Merdivenler güvenli değildi <input type="radio"/> Bazı kiliselerin varlığından haberim yoktu <input type="radio"/> Kiliselerin hepsi ilgi çekmedi <input type="radio"/> Zamanım yoktu Diğer				
18. Göreme Açık hava Müzesi'nde ilginizi en çok çeken ve en çok vakit geçirdiğiniz kaya oyma mekan hangisidir? Neden?				
19. Göreme Açık hava Müzesi'nde sunulan hizmetleri yeterli buldunuz mu? (Müze mağazası, tuvalet, sesli rehber, bilgilendirme panoları ve diğerleri) <input type="radio"/> Evet <input type="radio"/> Hayır				
20. Göreme Açık hava Müzesi'nde sunulan hizmetleri memnuniyet durumunuza göre puanlayabilir misiniz? (5 en çok - 1 en az) Gezi güzergahı (Puan: ...) <input type="radio"/> Müze mağazası ve kafeteryası (Puan: ...) <input type="radio"/> Tuvalet (Puan: ...) <input type="radio"/> Çöp kutuları (Puan: ...) <input type="radio"/> Oturma birimleri (Puan: ...) <input type="radio"/> Otopark (Puan: ...) <input type="radio"/>				
21. Göreme Açık hava Müzesi'nde sunulan hizmetleri geliştirmek için tavsiyeleriniz var mı? 				
22. Göreme Açık hava Müzesi'ni tekrar ziyaret etmek ister misiniz? <input type="radio"/> Evet <input type="radio"/> Hayır				
* Bu anket Ortadoğu Teknik Üniversitesi Mimarlık Bölümü Mimarlık Anabilim Dalı Restorasyon Bölümü kapsamında, Doç. Dr. Neriman Şahin Güçhan danışmanlığında, Araştırma Görevlisi Özgün Özçakır tarafından yürütülen Yüksek Lisans tezi kapsamında yapılmaktadır.				

Figure 126 Visitor Interview Sheets

APPENDIX B

SECURITY OFFICERS INTERVIEW SHEET


		
GÖREME AÇIKHAVA MÜZESİ GÜVENLİK GÖREVLİSİ ANKETİ		
Anketi dolduranın; Adı/ Soyadı:	Eğitimi:	Görev Tanımı:
Kaç Yıldır Çalıştığı?:	Yaşı:	Tarih: .. / 12 / 2011
1. Alanın güvenliği nasıl sağlanıyor?		
2. Alanda gece güvenlik nasıl sağlanıyor?		
3. Alanda güvenlik sorunu var mı?		
4. Alana ziyaretçiler zarar veriyor mu?		
5. Alanda nasıl sorunlarla karşılaşıyorsunuz?		
6. Bir sorun olduğunda kime haber veriyorsunuz? Sizden sonraki bir üst yetkili kişi kim?		
7. Çalışma koşulları nasıl? Günde kaç saat, haftada kaç gün çalışıyorsunuz?		
8. Göreme Açık hava Müzesi'nde güvenliğin sağlanması konusundaki görüş ve önerileriniz nelerdir?		
NOTLAR		
* Bu anket Ortadoğu Teknik Üniversitesi Mimarlık Bölümü Mimarlık Anabilim Dalı Restorasyon Bölümü kapsamında, Doç. Dr. Neriman Şahin Güçhan danışmanlığında, Araştırma Görevlisi Özgün Özçakır tarafından yürütülen Yüksek Lisans tezi kapsamında yapılmaktadır.		

Figure 127 Security Officers Interview Sheet

APPENDIX C

TICKET OFFICERS INTERVIEW SHEET


		
Anketi dolduranın;		
Adı/ Soyadı:	Eğitimi:	
Kaç Yıldır Çalıştığı?:	Yaşı:	Tarih: .. / 12 / 2011
1. Günde kaç saat, haftada kaç gün çalışıyorsunuz?		
2. Tokalı Kilise/ Karanlık Kilise'ye girişler nasıl oluyor? Yoğun ziyaretçi oluyor mu?		
3. Yabancılar ile yerliler arasında giriş ücretleri arasında fark var mı?		
4. Yoğun dönemlerde gişelerde sıra oluyor mu?		
5. Şu andaki gişe yapıları size yeterli geliyor mu?		
6. Göreme Açık hava Müzesi'ndeki gişelerin ve biletleme sisteminin geliştirilmesi için sizin öneri ve düşünceleriniz nelerdir?		
7. Alan hakkında en çok hangi sorular soruluyor?		
NOTLAR		
* Bu anket Ortadoğu Teknik Üniversitesi Mimarlık Bölümü Mimarlık Anabilim Dalı Restorasyon Bölümü kapsamında, Doç. Dr. Neriman Şahin Güçhan danışmanlığında, Araştırma Görevlisi Özgün Özçakır tarafından yürütülen Yüksek Lisans tezi kapsamında yapılmaktadır.		

Figure 128 Ticket Officers Interview Sheet

APPENDIX D

TOUR GUIDE INTERVIEW SHEET


		
GÖREME AÇIKHAVA MÜZESİ TUR REHBERİ ANKETİ		
Anketi dolduranın;		
Adı/ Soyadı:	Eğitimi:	
Kaç Yıldır Çalıştığı?:	Yaşı:	Tarih: .. / 12 / 2011
1. Yerel tur rehberi olarak, ziyaretçilerin size talebi nasıl?		
2. En çok hangi milletten turistler müze ziyaretleri sırasında sizi tercih ediyor?		
3. Alanı turistlere nasıl gezdiriyorsunuz? Gezi programının süresi ne kadar?		
4. Tur kapsamında hangi kiliseler ziyaret ediliyor? Alan hakkında nasıl bilgiler veriyorsunuz?		
5. Alan hakkında bilgi verirken kullandığınız kaynaklar var mı?		
6. Alan hakkında en çok hangi sorular soruluyor?		
7. Ziyaretçiler rehberli turdan memnun kalıyorlar mı?		
8. Ziyaretçilerin Göreme Açık hava Müzesi hakkındaki görüşleri neler oluyor?		
9. Göreme Açık hava Müzesi'ndeki sunum programının geliştirilmesi için sizin öneri ve düşünceleriniz nelerdir?		
NOTLAR		
* Bu anket Ortadoğu Teknik Üniversitesi Mimarlık Bölümü Mimarlık Anabilim Dalı Restorasyon Bölümü kapsamında, Doç. Dr. Neriman Şahin Güçhan danışmanlığında, Araştırma Görevlisi Özgün Özçakır tarafından yürütülen Yüksek Lisans tezi kapsamında yapılmaktadır.		

Figure 129 Tour Guide Interview Sheet