

For the Love of Ruins:  
The Landscapes that made me

by

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# For the Love of Ruins: The Landscapes that made me

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## Abstract

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This document is an investigation of the History of Mycenae, the stories that formed the landscape, and the stories that the landscape has created. Identifying the uniqueness of the archaeological site of Mycenae and exploring possible integration of near excavation sites to the main archaeological site.

The goal is to demonstrate how landscape architectural interventions could improve visitor experience at Mycenae. This leads to the development of a set of guidelines for future archaeological conservation, restoration and sustainable development for the site, as well as improving the experience of the site for visitors, through a proposed design for the integration of the excavation site of “Petsas House” to the main archaeological site.

To achieve this goal, in addition to carrying out research specific to the Mycenae site, the study examines the comparable archaeological sites of Nemea and Knossos which are both located in Greece, and the Orongo Ceremonial Village, Easter Island, Chile.

The archaeological site of Mycenae in the Peloponnese peninsula is a UNESCO designated World Heritage Site (1999). According to UNESCO, it is

“...One the of the greatest cities of the Mycenaean civilization, which dominated the eastern Mediterranean world from the 15th to the 12th century B.C. and played a vital role in the development of the Greek culture. It is linked to the Homeric epics of the Iliad and the Odyssey, which have influenced European art and literature for more than three millennia.”

(UNESCO, 2004)

The method used for my research is mainly interpretive-historical. Qualitative research, in particular ethnography and interpretivism, are of key importance for the understanding of the archaeological sites and the significance of site conservation and presentation. Case studies are reviewed in order to determine the effectiveness of past and present methods of conservation and site presentation.

- An introduction to the concept and intentions.
- A validation of the resource.
- A critique of the way it is currently made accessible to the public.
- An examination of other heritage sites and how their resources are protected and presented. A review of how lessons from these examples could be applied in Mycenae.
- A sustainable design for the conservation and presentation of Mycenae.

## Acknowledgements

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To my parents, **Yannis** and **Mireille**, and my sister, **Konstantina**. Thank you for everything I have and everything I am. Words are simply not enough. You are my A and  $\Omega$ .



για τον μπαμπά

you taught me to love fiercely  
everything that matters.

my greatest inspiration,  
this endeavour is for you.



[Fig 0.0] Mycenae Village. View from the balcony of my house, during a rainy spring afternoon, looking south west. The site is in the village of Mycenae (see p. 14)

*“At every stage bear Ithaca in mind.  
The arrival there is your appointed lot.  
But hurry not the voyage in the least:  
'twere better if you travelled many years  
and reached your island home in your old age,  
being rich in riches gathered on the way,  
and not expecting more from Ithaca.*

*Ithaca gave you the delightful voyage:  
without her you would never have set out:  
and she has nothing else to give you now.*

*And though you should find her wanting, Ithaca  
will not surprise you; for you will arrive  
wise and experienced, having long since  
perceived  
the unapparent sense in Ithacas.”*

(Poems by C. P. Cavafy.  
Translated, from Greek, by J. C. Cavafy. Ikaros, 2003)

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## Definitions

*“Character-defining Element: The materials, forms, location, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of a historic place, which must be retained to preserve its heritage value.”<sup>1</sup>*

*“Heritage value: The aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations. The heritage value of an historic place is embodied in its character-defining materials, forms, location, spatial configurations, uses and cultural associations or meanings.”<sup>2</sup>*

*“Heritage value: The aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations. The heritage value of an historic place is embodied in its character-defining materials, forms, location, spatial configurations, uses and cultural associations or meanings.”<sup>2</sup>*

*“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. It can be conveyed through a variety of technical means, including, yet not requiring, such elements as informational panels, museum-type displays, formalized walking tours, lectures and guided tours, and multimedia applications and websites.”<sup>3</sup>*

*“Interpretive infrastructure refers to physical installations, facilities, and areas at, or connected with a cultural heritage site that may be specifically utilised for the purposes of interpretation and presentation including those supporting interpretation via new and existing technologies.”<sup>3</sup>*

*“Conservation is the means by which the true nature of an object is preserved. The true nature of an object includes evidence of its origins, its original construction and the material of which it was composed(…)”<sup>4</sup>*

*“Anastylosis: The archeological reassembly of ruined monuments from fallen or decayed fragments (incorporating new materials when necessary)”<sup>5</sup>*

1: Standards and Guidelines for the Conservation of Historic Places in Canada: A Federal, Provincial and Territorial Collaboration, 2010, p.5

2: Standards and Guidelines for the Conservation of Historic Places in Canada: A Federal, Provincial and Territorial Collaboration, 2010, p.254

3: Source: ICOMOS,. (2015). The ICOMOS charter for the interpretation and presentation of cultural heritage sites. Retrieved 5 March 2015, from [http://www.international.icomos.org/charters/interpretation\\_e.pdf](http://www.international.icomos.org/charters/interpretation_e.pdf) (Appendix 2)

4: Caple, C. (2000). Conservation skills (p. Ch3: The nature of conservation). London: Routledge

5: anastylosis. (n.d.) WordNet 3.0, Farlex clipart collection. (2003-2008). Retrieved March 31 2015 from <http://www.thefreedictionary.com/anastylosis>





[Fig 0.1] Cyclopean Wall. Located on the left side of the Lion Gate.(see Fig 2.1 and #4 on Fig 2.2) This monolithic structure is one of the character-defining elements of the site. You can see the stones resting on the bedrock, perfectly balanced for over three thousand years. (see character-defining elements definition)





[Fig 0.2] Cyclopean Wall and olive tree

## Prologue

---

I close my eyes and I am taken back to my first memory of the palace.

Seeing the Lion Gate for the first time as a child and feeling a sense of awe never experienced before. I am standing in front of a gate to a magical world, with my father first teaching me the history like a fairy tale. A world that existed four thousand years ago, built by giant Cyclopes, with stones that weighed “as much as a house”! A world guarded by lions with golden heads, and kings wearing golden masks, ruling over the whole valley. A world where people lived proudly and died magnificently; where tombs were built like giant beehives and filled with gold to the brim! Touching the enormous stones and feeling the heat of the sun they had collected during the day. Heat radiating through my hand and into my body like an energy charging my entire being with a sense of wonder and magic. What would it have been like to live in that place, at that fantastical time?

I am sitting with my father and his friends on one of the hundreds of scattered stones on (what I now know was) the northwest side of the archaeological site, under an olive tree waiting for the Rally Acropolis to race by the ancient road between Mycenae and Prosymna. The dust from the racing cars, the smell of wild oregano and thyme, the rough texture of the stones we sat on and the hot rays of the sun peeking through the canopy, are all I knew at that time.



*...“I have seen in the night  
the sharp peak of the mountain.  
Seen the plain beyond flooded  
With the light of an invisible moon,  
Seen turning my head  
Black stones huddled  
And my life taut as a chord  
Beginning and end  
The final moment:  
My hands*

*Sinks whoever raises the great stones:  
I’ve raised these stones as long as I was able  
I’ve loved these stones as long as I was able  
These stones, my fate.  
Wounded by my own soil  
Tortured by my own shirt  
Condemned by my own gods,  
These stones”...  
October 1935*

(Seferis, Sherrard & Keeley, 1967)

Snippets of memory cross my mind like the scenes of a movie I may have once watched, hard to believe they belong in my past. At that age, I never considered how precious those moments were, and how deeply that place would be rooted in my soul and my whole existence.

This place that I took for granted while I was there, is now the anchor that has me bound, and no matter where I am or what I do, I keep going back. This place is not only in my memory but also in my blood. It is that same bond that my grandpa and my father felt spending most of their adult lives working in the ruins. It is the same love as many Mycenaeans and non-Mycenaeans felt over the centuries, from the time of Homer in the Iliad and Odyssey, to the more modern literature of G. Seferis and K. P. Cavafy.

Growing up in the little village of Mycenae, I was forged by the spirit of the place and the values of the people. From a very young age, raised in the safety of the familiar people and places, I had the freedom to be curious, to run, to fall, to build and demolish, with the entire village as my playground. Ruins were a common sight, whether those of abandoned buildings within the village, or those of the archaeological site at the acropolis of Mycenae. As a child, I could not imagine a better place to play.



[Fig 0.3] House of the Merchant



[Fig 0.4] Grandpa Konstantinos at excavation



[Fig 0.5] Grandpa Konstantinos at excavation



[Fig 0.6] Grandpa Konstantinos at excavation



[Fig 0.7] Grandpa Konstantinos at excavation

My grandfather, a jack-of-all trades, master of all the things that he poured his heart into, was my childhood hero, and his workshop, filled with most crafting tools imaginable, was my favourite place to be. Watching him carve elaborate handles with dragons, wolves, lions and people, on hand-crafted shepherd canes, and listening to him talk proudly about the different sculpting projects he had done around the village, made me admire him and want to be like him. My love for design and building, as well as my love for the outdoors, were inevitable.

In high school I decided that the only thing I could do in the future that would make me happy, was to become an architect. The conditions required to do that in Greece were less than ideal, but I would not let that become an obstacle. I was prepared to cross the Atlantic and leave everything behind, if that meant I could realize my dream; and so I did.

Before I started the program of Environmental Design at the University of Manitoba, I had never heard of landscape architecture, but in the first class of Introduction to Environmental Design, when Professor Charlie Thomsen talked about landscape architecture, I knew that this is what I wanted to do all along.

After my first year of Environmental Design, when I went back to Greece for the summer, I had the opportunity to join an archaeological excavation, directed by Dr Kim Shelton, with the University of California, Berkeley. For four consecutive summers, I catalogued and illustrated excavation finds, did site surveying, and architectural measurements and drawings at the sites of Nemea, and Mycenae. Working with a team of exceptional archaeologists and anthropologists, who were so passionate to share their knowledge with me, rekindled my love for ruins, and made





[Fig 0.8] Roadway to the citadel of Mycenae

me see archaeological sites from a different perspective.

I could see that this subject was not only significant to me for psychological reasons, but it had a true potential to be studied further. In consultation with my Advisor, Dr. Alan Tate, I realized there is a way to bring this passion of mine into my work, by studying archaeological sites as landscapes, and how, with the involvement of landscape architects, archaeological sites can be better displayed to the public.

This endeavour is an expression of my two greatest passions, of archaeology and landscape architecture. It is the most exciting, and most terrifying work, I ever attempted to accomplish, and a struggle to reinforce my biased opinion of the place I love the most, with sources that support my arguments. It is a project that knew what it wanted to be, but could not find the right way to be expressed.

This practicum is written as a story of the place seen through the eyes of local girl who got the chance to know the place while growing up. Her great grandparents herded their sheep among the ruins, before Heinrich Schliemann identified them as the Homeric well-founded citadel of “Gold-rich Mycenae”. Her grandfather took part in the excavations of the citadel, and told her stories of golden swords, crowns and pendants found with the bones of kings and queens. When she was only a baby, her father took part in the excavation of the site, that twenty-three years later she got to measure stone by stone, and draw every room, every step and every well. One could say that Mycenae runs through her blood. I am that girl.

---





[Fig 0.9] Mycenae local Vegetation, with predominant species being wild laurels, wild almonds, olive trees, fig trees, myrrh trees, wild celery fennel, mint, oregano, thyme and other wild flowers and grasses.





[Fig 1.0] South site of citadel. View from the top of the “megaron”, looking out to the Argolid valley in the background as well as the Gulf of Nauplion in the Aegean on the horizon.

## Chapter 1: Introduction

---

How can one describe a place with words, when the thought of that place floods one’s mind with memories, one’s heart with love, and one’s entire being with an overwhelming sense of identity? Mycenae is so much more than a place. It is a place that has been, for thousands of years. All those thousands of years are visible in beautifully preserved layers of soil and stone. Throughout these layers, mythology often becomes historic evidence, and the people who have existed in that place can be seen as not just characters in a story, but real persons whose lives can be traced back. Their places of dwelling, their ways of recording their life, the objects they created and eventually their graves and the things they chose to take with them, not only enrich our information about the place, but help present-day society have a more personal relationship with that place.

The document addresses first the archaeological site of Mycenae, its history, and description as a World Heritage site. Second, it includes case studies, based on the archaeological sites of Nemea and Knossos which are both located in Greece, although developed in different time periods, as well as the site of the Orongo Ceremonial Village located at Rapa Nui National Park, on Easter Island. Then, it critiques the current layout of the archaeological site of Mycenae and the way it is made accessible to the public. It will be compared with the case studies, reviewing those that present their



resources more effectively, and examining how lessons from these examples could be applied in Mycenae.

Finally, it will present the excavation site of Petsas House, which is not currently included in the main archaeological site available for viewing by visitors. After a description of the site and its topographical, historical, and environmental properties, I will be making design proposals that will allow for the excavation site of Petsas House to be included in the main site available for viewing, while excavations can continue uninterrupted, secure from illicit trade in antiquities or vandalism. In that way, visitors would learn more about the process of uncovering history, as well

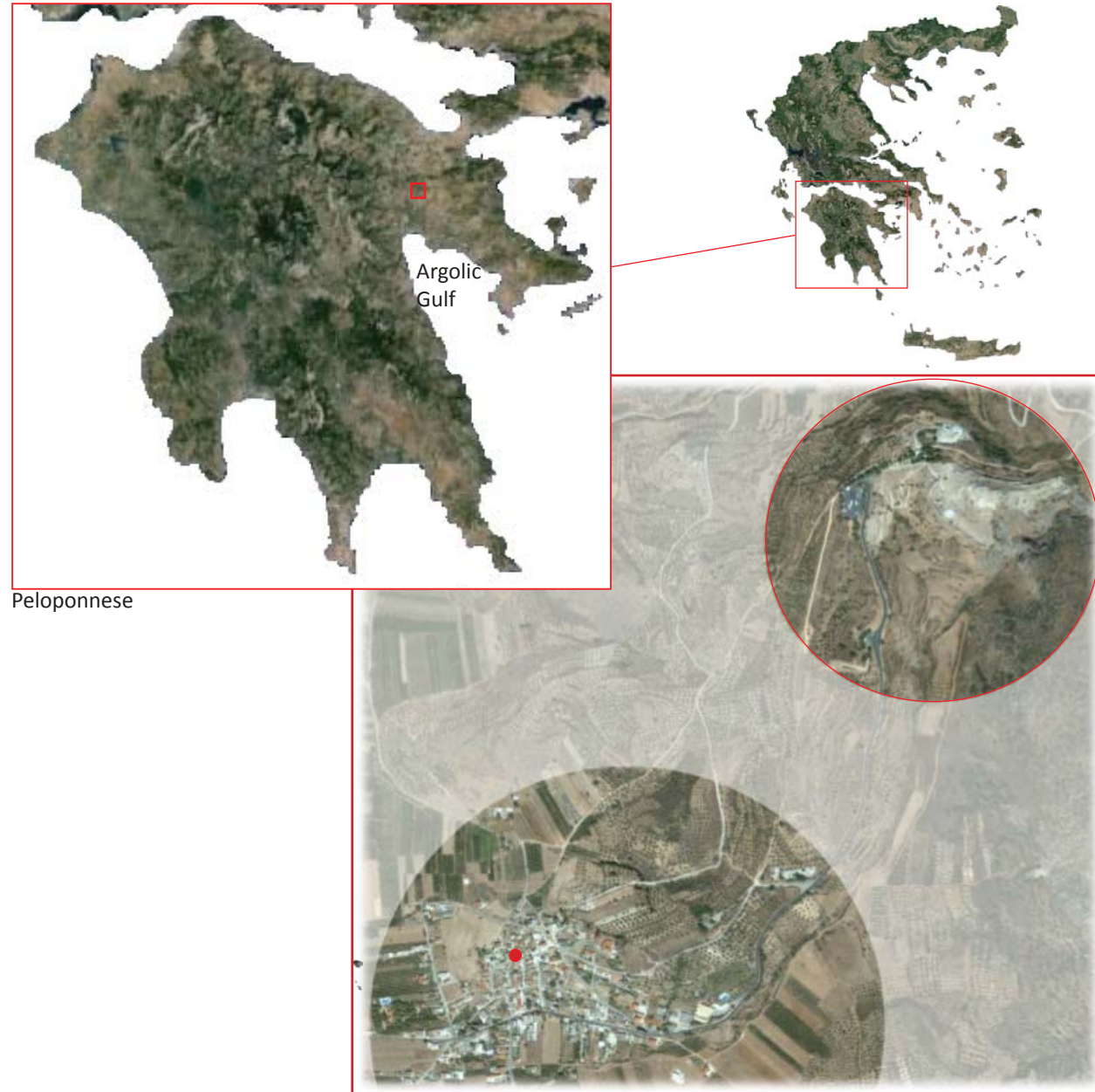
as gaining an understanding about the history and evolution of the place and people who lived in it.

During the study I will examine existing guidelines for future archaeological conservation, restoration and sustainable development for the site. In addition, in order to improve the experience of the site for visitors, through a proposed design for the integration of the excavation site of Petsas House to the main archaeological site, a redevelopment of parts of the site such as the refreshment cantina, the post office, the main entrance and ticket office will also be proposed.

---



[Fig 1.1] Petsas House. For location see Fig 2.2 #3 and 4.0 #6. Excavation site is currently under excavation and research, and is not available for public visits.



[Fig 2.0] Mycenae Overview  
 ● My house  
 ○ Archaeological Site of Mycenae

## Chapter 2: Mycenae - Site Description

Mycenae is a small village on the northeast part of the Peloponnese in the Argolic Peninsula (see map 2.0). It is mainly known for the archaeological site, which is located approximately one kilometre north from the main inhabited area, with acres of olive, citrus and grapevine fields scattered around and between them. The archaeological site is nestled between the mountains of Prophitis Ilias and Zara, two of the highest peaks of the Arachnaion range (French, 2002). The fortified walls of the citadel stand on a small hill surrounded by the deep gorge of Chavos to the southeast and smaller gorge of Kokoretsa to the north (French, 2002). The site is defined not only by the archaeological artefacts, but also the natural characteristics surrounding it. The terrain is dry and rocky, with the main vegetation, other than farmed orchards, being small to large trees, shrubs, herbs, wildflowers and grasses that grow wild in the mountains, fields or roadsides. These include wild laurels, wild almonds, eucalyptus trees, cypress, pine trees, fig trees, myrrh trees, asphodels, wild celery, fennel, mint, oregano and thyme. The climate of the area, especially during the summer months, is hot and dry. The smell of all these aromatic plants saturates the air, and on clear windy days, the Levant wind carries the smell of the sea from the Argolic Gulf.

Elizabeth French, indicates that Pausanias, one of the best known antiquities travel writers, visited Mycenae himself, in the second century AD, and was guided to see the fortification walls and the Lion Gate that remained partially uncovered at that time (French, 2002).





[Fig 2.1] Mycenae Citadel from the west of the archaeological site on the side of the main access road. The character-defining elements of the site, such as colour, views, vegetation, archaeological ruins, the cyclopean walls and the topography, are all visible in this photograph. See Fig 2.3.





[Fig 2.2] Lion Gate. This is the most iconic character-defining element of the site. See Fig 2.3, #4

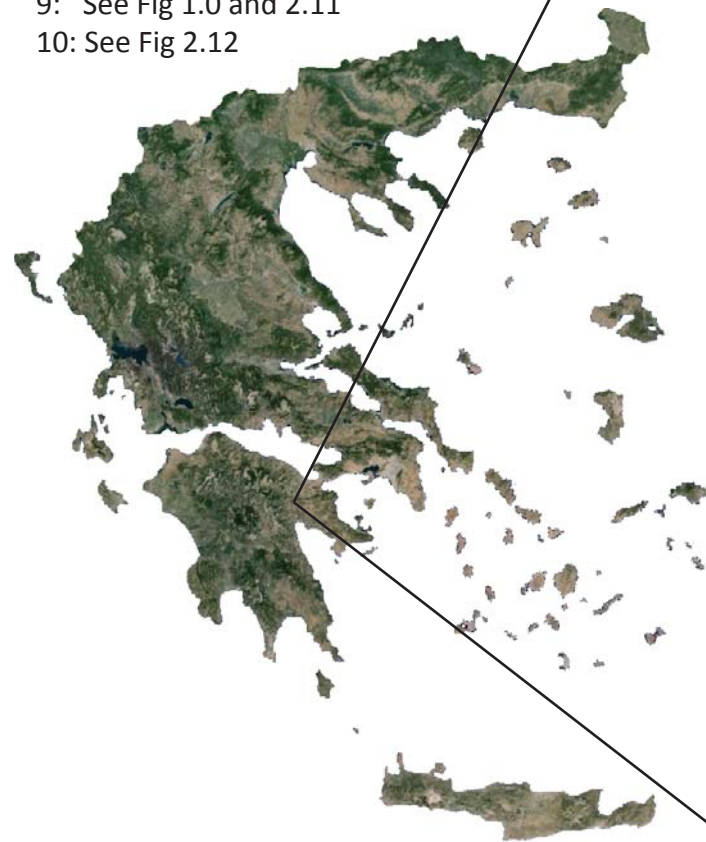
During the 23rd session of the United Nations World Heritage Committee, in 1999, the archaeological site of Mycenae, as well as the archaeological site of Tiryns (a Mycenaean fort, located about 10 kilometres south of Mycenae) were inscribed in the World Heritage List based on the criteria given here.

- (i) The architecture and design of Mycenae and Tiryns, such as the Lion Gate, the treasury of Atreus and the Walls of Tiryns, are outstanding examples of human creative genius.
  - (ii) The Mycenaean civilization, as exemplified by Mycenae and Tiryns, had a profound effect on the development of classical Greek architecture and urban design, and consequently also on contemporary cultural forms.
  - (iii) And (iv) Mycenae and Tiryns represent the apogee of the Mycenaean Civilization, which laid the foundations for the evolution of later European cultures.
  - (iv) Mycenae and Tiryns are indissolubly linked with the Homeric epics, The Iliad and The Odyssey, the influence of which upon European literature and the arts has been profound for more than three millennia.
- (UNESCO, 2014, see Appendix 3 p 126)



For Images referring to numbers on map 2.3:

- 1: See Fig 2.1 and 2.4
- 2: See Fig 2.5
- 3: See Fig 1.1
- 4: See Fig 2.2 and 2.6
- 5: See Fig 2.7
- 6: See Fig 2.8
- 7: See Fig 2.9
- 8: See Fig 2.19
- 9: See Fig 1.0 and 2.11
- 10: See Fig 2.12



[Fig 2.3] Mycenae Archaeological Site Existing Plan





[Fig 2.4] View of the palace of ancient Mycenae looking east from the exterior of the site. Grave Circle A is in the foreground. Visitors experience this view, upon arrival.





[Fig 2.5] View of the surrounding fields. Olive, orange and apricot groves, as well as fields of grape vines.



[Fig 2.6] The Lion Gate. The most iconic and world known view of the archaeological site of Mycenae.

“Within the archaeological site of Mycenae lies the well preserved remains of one of the most famous cultures of humankind, distinguished not only by its technical and artistic achievements but also by the fact that it contributed to its spiritual and intellectual richness, being the home of the Atreides so present in Homeric epics and the classical tragedies, but also, through the centuries, in our present culture.” (UNESCO, 2014)

“The hill has been occupied since Neolithic times (about 4000 BC) but the remains from this period are scanty. During the Middle Helladic a cemetery extended on its south slopes which included, at the end of the period, the Grave Circle B (17th century) and the Grave Circle A5 (16th century). At the beginning of the Late Bronze Age (Mycenaean period) a palace occupied the top of the hill, later extended and surrounded with massive cyclopean walls, built in three stages (at about 1350, 1250 and 1225 BC).” (UNESCO, 2014)

“During the last stage, an underground reservoir was reinforced. During the Mycenaean period, a series of tholos tombs were built on the south and southwest slopes of the hill of which the ‘Tomb of Aegisthos’ is the earlier of them (about 1500 BC). A second tomb, the ‘Lion Tholos Tomb’, was built about 1350 BC and a third, the ‘Tomb of Clytemnestra’ about 1220 BC. The type culminated in the so-called ‘Treasury of Atreus’ which was built at some distance from the others, about 1250 BC. In the area of the ‘Circle B’ were also built during the 13th century, four buildings, most probably royal workshops, called ‘the House of Shields’, the ‘House of the Oil Merchant, the ‘House of the Sphinxes’ and the ‘West House’.” (UNESCO, 2014)





[Fig 2.7] Panoramic view from the interior of the archaeological site. Visible from this point are, the access road to the site and the parking lot in the background. In the foreground is the Grave Circle A in the middle, and the interior (back side) of the Lion Gate.

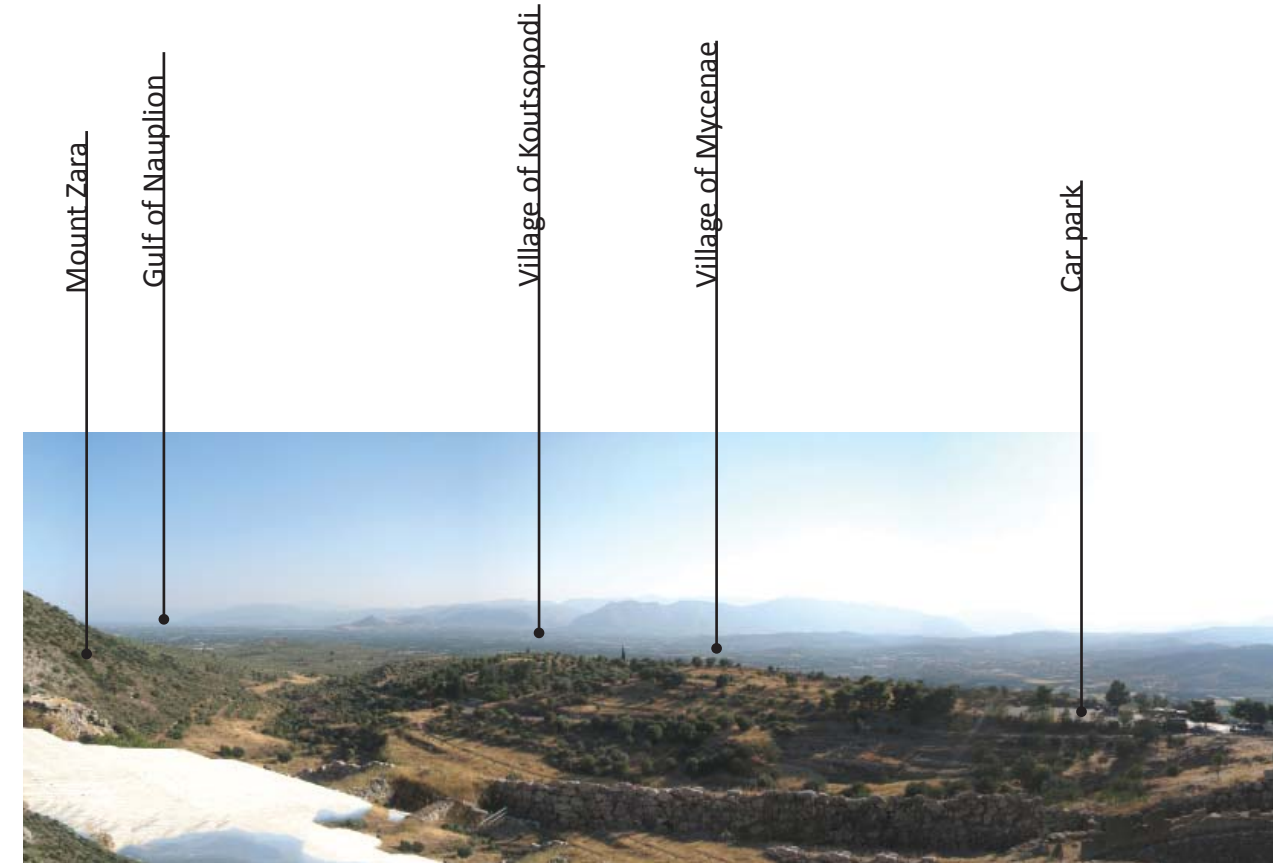
“At the end of the 12th century, the Palace was abandoned and suffered some destruction by fire as well as did the buildings in its vicinity. But the site itself was occupied without interruption until 498 BC when it was conquered by Argos and its population deported. During that time, the top of the hill had been partly levelled for the construction of an archaic temple. From a short reoccupation during the Hellenistic period we have the remains of another temple on the top of the hill as well as of a theater built over the ‘Tomb of Clytemnestra.’” (UNESCO, 2014)

“For the last ten years the attendance of the visitors at the site has been quite regular, ranging between 500,000 visitors and 700,000. “(UNESCO, 2014)

“Since the beginning of the Program of Restoration and Conservation of the monuments of the site, the architectural remains are regularly checked for their stability by the specialists in charge of the works. “(UNESCO, 2014)



[Fig 2.8] View towards the palace, located at the top of the archaeological site. In the foreground is the dry rocky terrain of the site. In the background the site is framed by Mount Prophitis Ilias to the left, and Mount Zara to the right.



[Fig 2.9] View towards the southwest side of the site. Mount Zara is on the left, and on the horizon one can see the Gulf of Nauplion in the Aegean Sea, the surrounding villages, including the village of Mycenae, and the car park for the archaeological site.





[Fig 2.10] View looking west, from what would have been the interior “Megaron” and throne room. Walls would have originally been covered by frescoes.



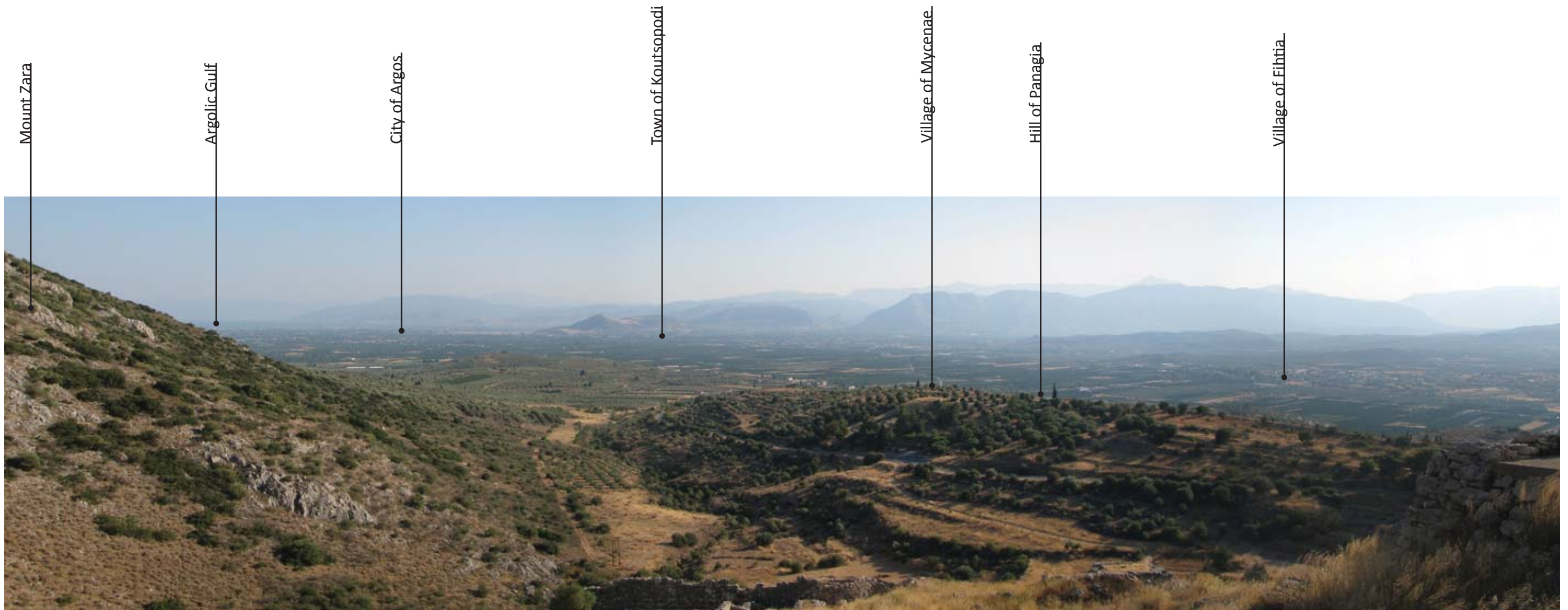
[Fig 2.11] Panoramic photograph looking southwest at the main palace, throne room and surrounding rooms. In the foreground, Mount Zara on the left and Mount Prophitis Ilias on the right, the surrounding villages and mountains in the background as well as the Gulf of Nauplion in the Aegean on the horizon.





[Fig 2.12] Panoramic view looking north. Visible are the existing pathways, the parking lot, the museum (bottom mid-photo), and the surrounding hills covered with olive, citrus and grape fields.





[Fig 2.13] Panoramic view looking south towards the Argolic Valley and Gulf.

## Chapter 3: Case Studies

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[Fig 3.0] Orongo Ceremonial Village



[Fig 3.1] Palace of Knossos



[Fig 3.2] Temple of Zeus in Nemea

In order to understand how one should be looking at an archaeological site, specifically Mycenae, it is helpful first to examine some examples of other restored archaeological sites.

I follow the documents of Eduardo Villafranca and Nicholas Hall, who worked on the conservation of Orongo, as an example of a detailed site analysis, when I select case studies.

This chapter, will examine three different archaeological sites: the Orongo Ceremonial Village, Nemea, and Knossos. These archaeological sites are examined in terms of site use, visitor experience, safety of the visitors, interpretation of the history and ruins, site maintenance, the site redevelopment plans that are currently occurring, that happened recently or were completed many decades ago.

*“Archaeological sites have long been a part of heritage and its display, certainly before the use of the term ‘heritage’ and the formal study of tourism” (Metero, 2013)*

Each case study was selected because of the different approach adopted to conservation of the site. The first two case studies, Orongo and Knossos, are World Heritage sites, whereas the third, Nemea, is not.

Through these observations, it is possible to understand the similarities and differences between the sites and the requirements of the sites.

According to UNESCO, for a site to be included in the World Heritage List, it must be of “Outstanding Universal Value” and meet at least one of the ten selection criteria.

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

- (vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- (viii) to be outstanding examples representing major stages of earth’s history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
- (ix) to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
- (x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation” (Centre, 2014)

*“The need to display archaeological sites has sometimes resulted in confused and discordant landscapes that deny the entire story of the site and the natural and sublime state of fragmentation all ruin sites possess” (De la Torre, 1997)*



## 2A: Orongo Ceremonial Village, Rapa Nui National Park, Easter Island, Chile

The Orongo Ceremonial Village is located in Rapa Nui National Park, at the southern part of the Easter Island. In 1995, Rapa Nui National Park was inscribed on the World Heritage List, based on the following criteria:

- “(i) *The World Heritage Committee concluded that the RNNP “contains one of the most remarkable cultural phenomena in the world. An artistic and architectural tradition of great power and imagination was developed by a society that was completely isolated from external cultural influences of any kind for over a millennium. The substantial remains of this culture blend with their natural surroundings to create an unparalleled cultural landscape.*
- (iii) *After its original settlement before the ninth century AD and up to the early eighteenth century, Easter Island did not receive new flows of immigrants. It developed its complex culture, unique in Polynesia, independently, being a unique example of civilization in this region. Its testimony to ecological crisis in premodern times also confers exceptionality to this site.*
- (v) *The RNNP is a testament to the undeniably unique character of a culture that suffered a debacle as a result of an ecological crisis followed by the irruption of the outside world.”*  
(Centre, 2014, see Appendix 4 p.136)



[Fig 3.3] Ceremonial Centre of Mata Ngarau



[Fig 3.4] Ceremonial Centre of Mata Ngarau



[Fig 3.5] Petroglyphs at Mata Ngarau



[Fig 3.6] New trail construction



[Fig 3.7] View of Motus from Mata Ngarau

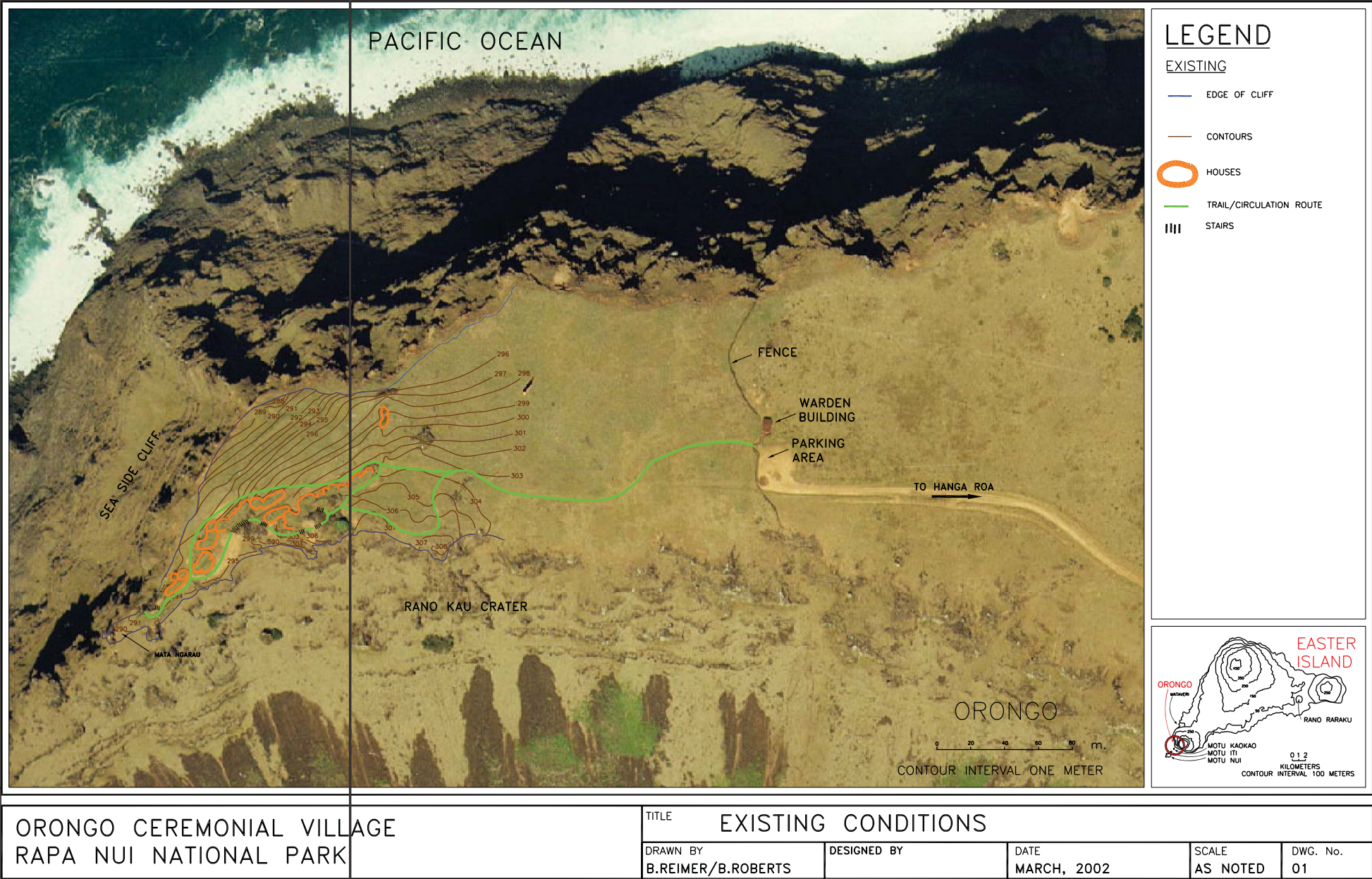


[Fig 3.8] New trail along edge of Rano Kao volcano



“The most prominent attributes of Rapa Nui are the archaeological sites, and the island has a high concentration of them, most of which are found in the National Park. It is estimated that there are about 900 statues, more than 300 ceremonial platforms and thousands of structures related to agriculture, funeral rites, housing and production, and other types of activities.” (Centre, 2014).

One of the primary issues of the Orongo site before the redevelopment plan, was the progressive destruction of the cultural resources of the site due to increased visitation and overuse. Orongo, is one of the most visited sites on the island, however the hours of operation were short and the site remained unguarded for the majority of time.



[Fig 3.9] Plan of Orongo Ceremonial Village, Existing in 2002 prior to redevelopment. Drawing by: B Reimer/B Roberts





[Fig 3.10] Orongo Visitor Centre

Bicycle and pedestrian circulation can be harmful to the site's natural as well as its heritage resources. As a result, the site was being damaged by vandalism, theft and lack of control. Another significant issue was the number of horses that grazed the site, and caused damage to the native grasses, as well as to the restored and non-restored structures by walking on them. (Villafranca & Hall, 2002).

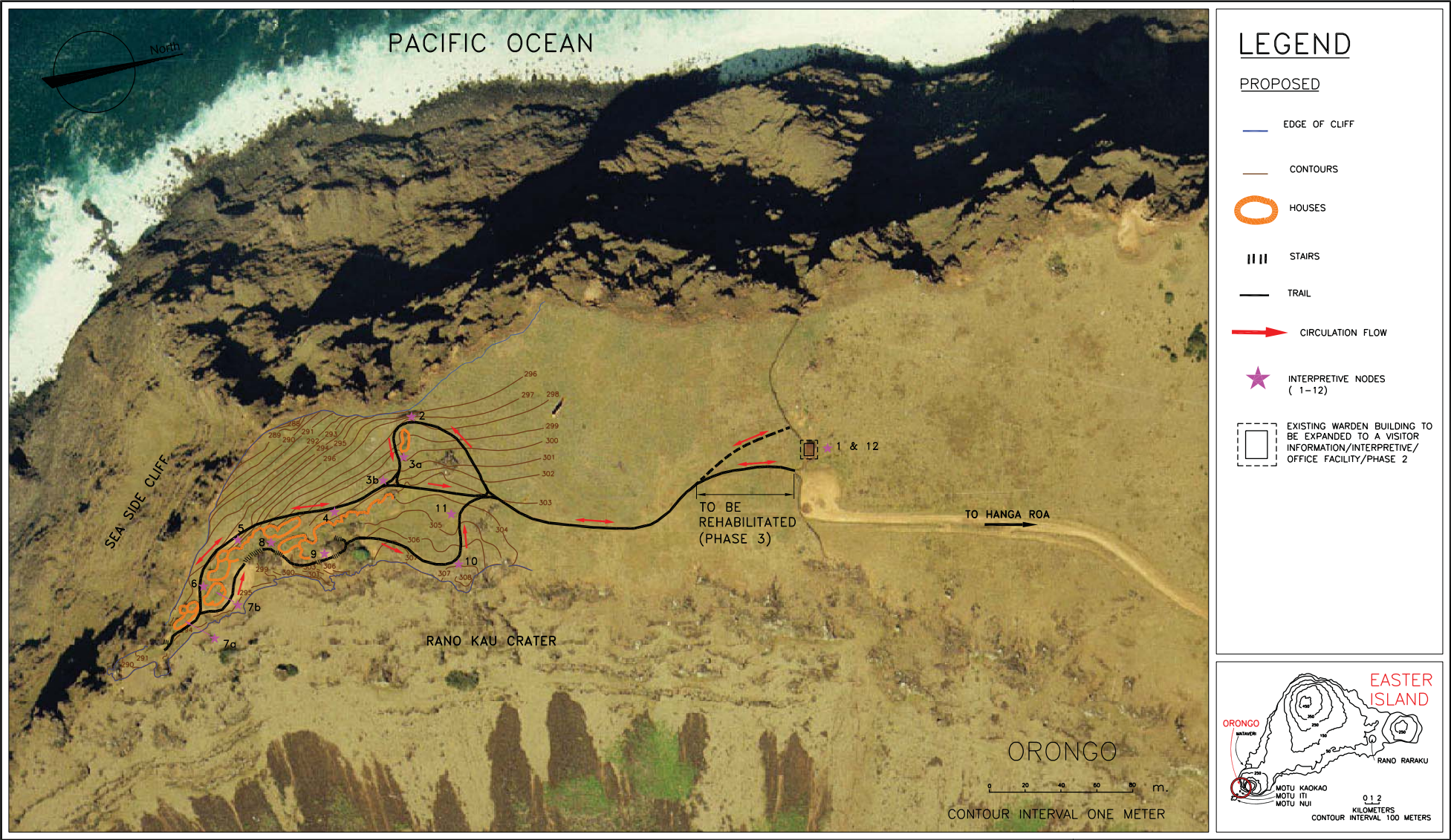
As recorded in September 2001, between two and twenty eight people per day visited the site, during a low tourism season, usually accompanied by a local guide and following designated routes. The site was always in danger of erosion, vandalism and theft, that could be caused by disorganized visitation and visitor flow (Villafranca & Hall, 2002).

When the document was written, in 2002, there were several safety concerns present on site, some of which had to do with the health and safety of visitors, and others with the security of the actual artefacts. Some of the dirt paths, were on unstable grounds which could be slippery and therefore a safety hazard. Some of the circulation existed on top of the houses.

There was an imminent risk of collapse in some areas and injury to visitors. Some of the amenities of the site such as the public washrooms and the wardens' building were in bad condition, either due to vandalism, or lack of maintenance, becoming a health concern for the employees of the site and for visitors (Villafranca & Hall, 2002).

A set of principles for conservation and sustainable redevelopment was defined during the planning process. These principles were observed and applied during the design and various implementation phases:





[Fig 3.11] Proposed plan of Orongo Ceremonial Village, Drawing by: B Reimer/B Roberts

- “
- Respect and protection of the cultural resources, their heritage values and meaning
  - Interpretation based on knowledge and understanding of the cultural resources of the site
  - Faithful representation of the past
  - Protect the character-defining elements of the site
  - Physical interventions to be reversible
  - Site to be protected for the benefit of public use
  - Apply the principle of minimum intervention
  - Maximum utilization of already disturbed areas for new interventions
  - Excavation to be avoided or should occur where absolutely necessary
  - Community participation in decision-making is paramount”.
- (Eduardo A. Villafranca, 2003)

The conservation plan for Orongo Ceremonial Village was implemented in stages. During the first stage, the project participants conducted public consultation, site inventory, and analyses of the use and management of the site as well as the interpretive system of the village. (Eduardo A. Villafranca, 2003)





[Fig 3.12] Orongo Visitor Centre

The results after the first stage of conservation were:

- “ • *Completed data collection, general inventory of the cultural and natural resources of the site.*
- *Completed analysis of site constraints and opportunities and defined improvement measures for the management of the site*
- *Acquired detailed knowledge of the site*
- *Prepared the Preliminary Site Redevelopment Plan”*(see Fig 3.11)

(Eduardo A. Villafranca, 2003)

The Site Redevelopment Plan of 2002 defined the location, context and messaging for 12 interpretive stations. These stations provided information on the views from that location.

(Eduardo A. Villafranca, 2003).

During the Second Stage, in 2003, the conservation team confirmed and validated the Site Redevelopment Plan, constructed or reconstructed the trail for the protection of the site and better public use, prepared the trail for the future incorporation of the interpretive program, trained personnel to perform conservation construction and restoration, contributed to the design of measures for the protection and sustainable use of the village, and defined work to be implemented during the next phase according to the Plan.

During the validation of the Site Redevelopment Plan of 2002, a two-day workshop was held in order to present the project to different interest groups, and to receive recommendations from them on the implementation of the next stage.

The conservation project was beneficial to the site in the following ways:



“ • *There exist a better control of the use of the site*

- *Human impact on the cultural resources has been reduced and neutralized*
- *Greater protection of the cultural and natural resources of the site*
- *Interpretive stations can be added with no construction and minimal impact*
- *Exists an opportunity to give visitors the most significant messages related to the site*
- *Local personnel is now trained on the technology of low impact and reversible trail construction*
- *Visits to the site are more organized and safer for the visitor*
- *It is easier to stagger/schedule tours to avoid conflicts of use and improve quality of the visitor experience*
- *Exists more control and it is easier to maintain visitation statistics which can be related to carrying capacity of the site*
- *Exists a possibility to implement a system of cyclical maintenance and a monitoring program for the sustainable use of the site*
- *It is possible to establish a rotation system of use within the total trail system or within sections of it to prevent deterioration or erosion*
- *Public participation and validation of conservation or development proposals by local interest groups is imperative to ensure a successful implementation of the project”*

(Eduardo A. Villafranca, 2003)

As I was informed by Eduardo Villafranca, work was implemented between 2003 and 2011,

ending with the completion of the visitor reception centre.

The conservation project at Orongo Ceremonial Village has been one of the most inspirational conservation case studies I looked at. Its process was well planned and organized, with ample informative reports to present it better. Taking into consideration the protection of the historical, cultural and environmental aspects of the site, the redevelopment was also planned for the improvement of the safety and educational experience of visitors. These guidelines, due to the care and diligence with which they were developed, greatly inspired me to look at archaeological sites with a closer attention to details; they encouraged me to examine all aspects of a place, including character-defining elements, issues, people, historical as well as physical context, and became a basis for the development of the plan of the archaeological site of Mycenae.



## 2B: Knossos, Heraklion, Crete, Greece

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Knossos is located in the northern part of the island of Crete, in the Heraklion region. It stands on a hill west of the River Kairatos. According to UNESCO (Centre, 2014), Knossos, is the most important centre of the Minoan civilization. It precedes Mycenae, and the Mycenaean civilization, and was highly influential on its evolution.

The palace is dated in the second millenium BC and was originally uncovered by Minos Kalokairinos in 1878, and was then excavated and restored by Sir Arthur Evans in the first three decades of the 20th century (UNESCO). Sir Arthur Evans named the civilization “Minoan“, when, inspired by Heinrich Schleiman and his pursuit to find the palace of Agamemnon, the centre of the Mycenaean civilization, he believed he found the palace of the legendary King Minos.

Due to the rapid deterioration of the frescoes found in the throne room, caused by the harsh weather conditions (Castleden, 1990), Evans began conservation of the site, including some drastic interventions such as the addition of a roof and strengthening of the walls. Some of the conservation interventions Sir Arthur instructed were justifiable. However, the reconstruction of additional features, the painting of walls, columns and frescoes, and naming the rooms according to speculated functions are highly criticized according to today’s standards. Evans has been accused of destroying and reinventing Knossos, as a result of guessing the uses of the excavated areas according to lifestyles at his time, and altering the appearances of the finds.

(Hamilakis, 2002)

According to the United Kingdom Institute of Conservation (1983),

“This definition does not apply to Evans’ project, and his reconstruction is flawed because it restricts the viewers and visitors from imagining other possible stories that formed the site.”  
(Hamilakis, 2002)

Regardless of the criticism of Knossos, the site remains one of the most widely visited archaeological sites of the Mediterranean. While it bears many cultural and topographical similarities with Mycenae, the style of the palace is unique to the Minoan Civilization (UNESCO, 2014). Unlike the archaeological site of Mycenae, the World Heritage status of Knossos has not yet been established. Knossos, along with Phaistos, Malia, Zakros and Kydonia is part of the Minoan Palatial centres that are on the Tentative List for World Heritage status (UNESCO, 2014). In January 2014, it was nominated to become a World Heritage site, based on the following criteria:

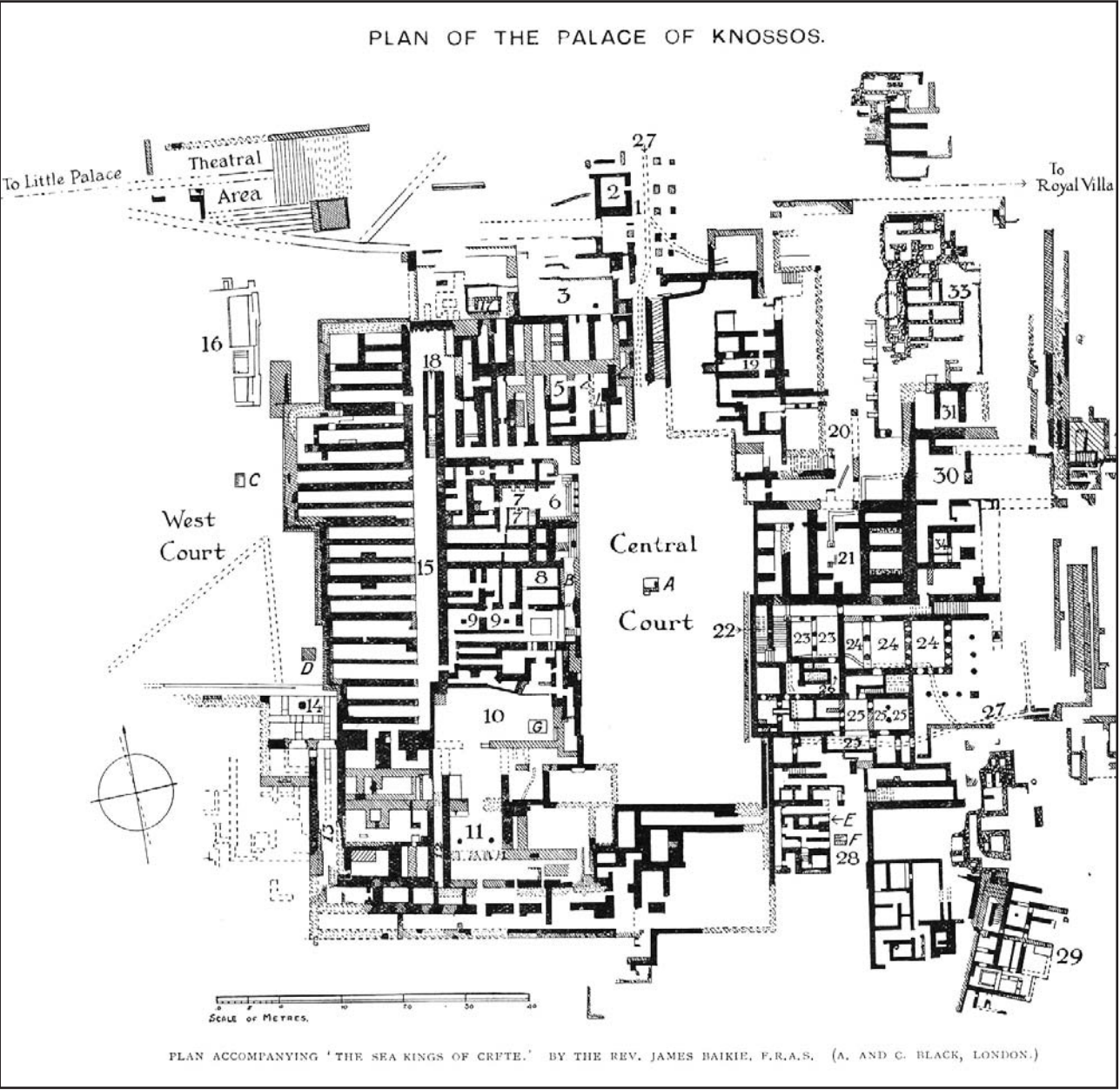


[Fig 3.13] Restored North Entrance and landscape



KEY TO NUMBERS

1. Northern Entrance and Portico.
2. Bastion and Guard-House.
3. Northern Piazza.
4. Room of the Flower Gatherer.
5. Room with Stirrup Vases, Walled Pit beneath.
6. Ante room to Throne Room.
7. Throne Room with Tank.
8. Temple Repositories.
9. East and West Pillar-Rooms.
10. Court of the Altar.
11. South Propylæum.
12. Corridor of the Cup Bearer.
13. Corridor of the Procession.
14. West Portico.
15. Long Gallery with Magazines on West Side.
16. North-West House with Bronze Vessels.
17. Northern Bath.
18. Deposit of Pictographic Tablets.
19. North-Eastern Magazines.
20. Corridor of the Draught-Board.
21. Room of the Olive Press.
23. Hall of the Colonnades, with Light-Well.
24. Hall of the Double Axes, with Light-Well.
25. Queen's Megaron, with Light-Wells.
26. Deposit of Ivory Figurines.
27. Built Drains.
28. Court of the Sanctuary.
29. South-East House with Pillar-Room.
30. Court of the Oil-Spout.
31. Magazines with large Pithoi.
32. East Bastion.
33. Early Buildings, partly in continuous use.
34. Sculptor's Workshop (on upper floor).
- A. Altar-Base in Central Court.
- B. Shrine of the Snake Goddess.
- C, D. Altar-Bases in West Court.
- E. Shrine of Dove Goddess and Double Axes.
- F. Altar-Base in Court of the Sanctuary.
- G. Altar Base in Court of the Altar.



[Fig 3.14] Plan of Knossos





[Fig 3.15] Column reconstruction



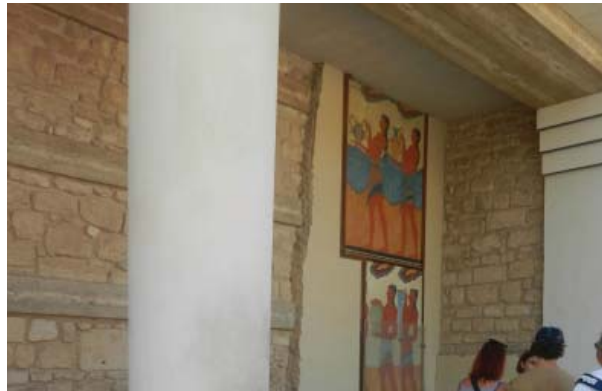
[Fig 3.16] Standing walls



[Fig 3.17] Restored North Entrance



[Fig 3.18] Grand Staircase



[Fig 3.19] Room with frescoes



[Fig 3.20] Floor finish protection

- “(ii) The Minoan palaces bear witness to a very early form of complex urban society and application of complex economic systems, which arose in Crete during the Middle and Late Bronze Age. They constitute an important archaeological testimony to the organisation of towns and cities, and to the development of the monumental architecture, technology and high level of art attained by the Minoan civilisation.
- (iii) The Minoan palaces are the most characteristic and impressive testimonies of the Minoan civilisation that flourished during the Bronze Age (1900-1400 BC). Complex monuments, constructed to serve the various needs and functions of the Minoan cities, they constitute the most important archaeological evidence for the understanding of the Minoan civilisation, its social organisation and its high level of intellectual and artistic development (frescoes, vase-painting, etc.). This complex socio/economic system led to the creation of two protohistoric writing systems, “Cretan Hieroglyphic” script and Linear A, which played an important part in the context of the Aegean civilisations, in both the Middle and the Late Bronze Age. It was from Linear A that Linear B was born in the Aegean world.
- (vi) The myths connected to the Minoan palaces (the Minotaur and the Labyrinth, Daedalus and Icarus, Theseus and Ariadne, etc.) exercised a great influence on mythology and the arts throughout the ancient world and remain a source of inspiration for world art, music and literature today.”
- (Centre, 2014, see appendix 5, p 147-148)



Note that this list of criteria, for the nomination of Knossos as a World Heritage site, is numbered as (ii), (iii) and (vi). This means that the site satisfies the three corresponding criteria, out of the ten required by UNESCO in order to be considered of “Outstanding Universal Value” (see p. 38) (Centre, 2014).

Most recently, conservation and maintenance has been focused on repairs to Evans’ reconstruction and on the management of visitors (De la Torre, 1997).

“The extensive use of reinforced concrete earlier in this century, the process of natural weathering, and the incidence of mass tourism have combined to create a difficult conservation challenge not only for the fabric of the original monument but also for that of Evans’ restoration” (Op cit,1997, p.113)

One of the main problems with present day conservation projects in Knossos, is that most of the interventions Evans did, such as pouring concrete directly onto the original remains, are irreversible (Ibid,1997). Another problem is the erosion of both the original remains, and the restored parts, due to the large numbers of visitors every year (Ibid, 1997).

In 1993, Dr. Clair Palyvou was commissioned to design a visitor management plan, but due to a lack of funding- although its implementation was approved- the plan did not go into effect until 1996 (Ibid,1997).

“The plan prepared by Dr. Palyvou, which in part entailed designing a route (or routes) for visitors to the site of the palace of Knossos, essentially aimed to provide special passageways, ramps, and wooden stairs in order to minimize the direct contact of visitors both with the

original fabric of the monument and with Evans’ restoration. The plan catered to tourist groups as well as to single visitors, and it offered several alternative routes, of varying duration, around the site. It also aimed to provide more information for the visitor on the site. “ (Ibid,1997, p 120).

This case study is a good example of how detrimental to the future of an archaeological site irreversible interventions can be. The lesson that can be taken forward for the development of the archaeological site of Mycenae is that all interventions should be reversible, and should not infringe directly on the in-situ cultural resource. From examination of the plan that Dr. Palyvou developed for Knossos, it is apparent that she included designing routes, passageways and ramps for visitors “... to minimize the direct contact of visitors both with the original fabric of the monument and with Evans’s restoration.” (Ibid, 1997, p120). Her plan also aimed to provide more information to visitors on the site, in the form of information boards. There are remarkable similarities with the conservation project for the archaeological site of Mycenae. This shows that carefully planned pathways and information boards are of critical importance for a successful presentation of an archaeological site, and this information will be carried forward for development of a connection between the excavation site at Petsas House and the main archaeological site of Mycenae.



## 2C: Nemea, Korinthos, Greece

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The archaeological site of Nemea is located at the base of the Arcadian mountain range in the region of Korinthia. Being over 300 meters above sea level, and in a valley surrounded by mountains, it has cooler summers and colder damp winters than most of Greece. The small village in which the site is located is called Archaia (ancient) Nemea, or Herakleion, and it is in a fertile, well watered valley which makes viticulture the primary source of income for most resident families, other than the minimal tourism that the archaeological site attracts.

Nemea was chosen as one of my case studies because- after working for several years in the Berkeley excavations of the Heroon, as well as the anastylosis study of the Temple of Zeus, in the archaeological site of Nemea- I was surprised to find that, unlike the two previous case studies of Orongo and Knossos, it had not yet acquired a World Heritage status. That intrigued me to look further at the site, and determine whether or not it satisfies the criteria for World Heritage designation.

Not unlike the sites of Olympia or Delphi, Nemea was one of the sites where one of the four Panhellenic festivals was held in antiquity (Miller & Bravo, 2004). This festival, the Nemean Games, which was similar to the Olympic Games, included gymnastic events, equestrian events and musical events.



[Fig 3.21] Aerial view of the Sanctuary of Zeus





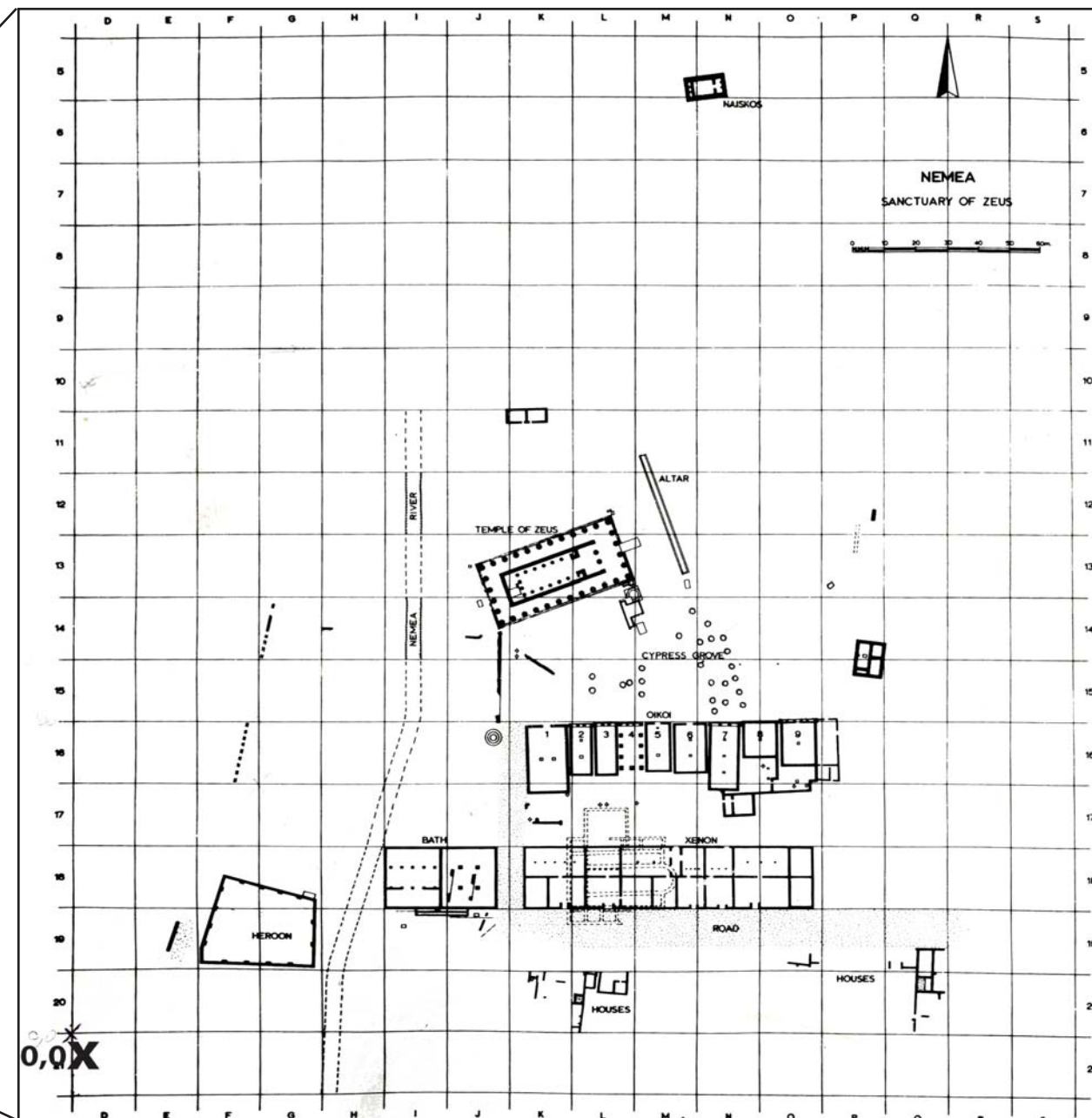
[Fig 3.22] Site Entrance and Ticket Sale



[Fig 3.23] Entrance to the Museum



[Fig 3.24] Sacred Grove



[Fig 3.25] Plan of Archaeological Site of Nemea



Even though the Nemean Games are not as widely known as the Olympic Games, The Society for the Revival of the Nemean Games was formed due to the passion, determination and generosity of locals and external benefactors mainly from the University of California at Berkeley (The Nemean Games, 1994). Since 1996, the Games have been held every four years in the ancient Stadium of Nemea. Thousands of visitors arrive at the site either to compete or watch the Games, just as they did thousands of years ago.

The most prominent feature of the archaeological site, other than the ancient stadium, is the 4th century Temple of Zeus. The temple was built on the foundations of an earlier, smaller temple. The 4th century temple used all three architectural orders, with Doric columns on the exterior peristyle, Corinthian columns on the interior colonnade, and Ionic columns on the second level (Miller & Bravo, 2004).

I believe that the archaeological site of Nemea satisfies criteria (i), (ii), (iii), (iv) and (vi) of UNESCO and should therefore be awarded the title of a World Heritage site. This would not only make the site better known to the public, but it would also bring more tourism and funds that would contribute to the resumption of the temple anastylosis and site conservation.

*“It is our belief that the modern Olympic Games, despite their obvious success in many respects, have become increasingly removed from the average person. Our goal is the participation, on the sacred ancient earth of Greece, of anyone and everyone, in games that will revive the spirit of the Olympics. We will achieve this by reliving authentic ancient athletic customs in the ancient stadium of Nemea.”*

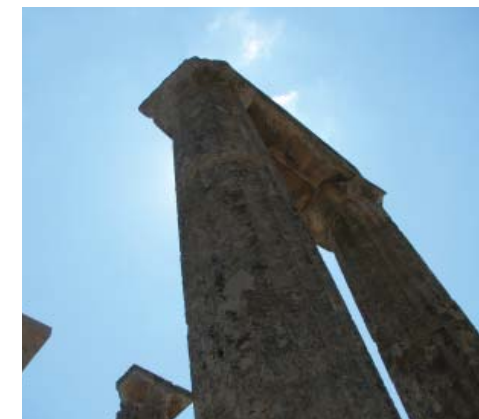
(Statement of the Purpose of the Society for the Revival of the Nemean Games, December 30, 1994)



[Fig 3.26] Temple Columns



[Fig 3.27] Temple Columns



[Fig 3.28] Temple Columns



[Fig 3.29] Temple of Zeus under anastylosis

The archaeological site of Nemea, and particularly the site of the Sanctuary of Zeus, is rich in visible layers of ancient as well as Byzantine history. At first sight, one may see the site as a mix of different walls running in all different directions until they learn that the Basilica, which was first excavated in 1924 (Nemea Guide, p 95), was built on top of part of the ancient Xenon, of the sanctuary of Zeus, with material taken from the Temple of Zeus.

*“The Early Christians actively quarried the Temple when constructing their Basilica, extracting, principally from the interior, such material as parts of the Corinthian colonnade and cella wall block, of which 1120 are missing from the Temple”*

(Miller & Bravo, 2004)

The first act of conservation I was able to find, executed shortly after the excavation of the Basilica, was the construction of a protective shed over the southwestern part of the wall. That protective structure stood until 1987 and, ironically, was built with stone and material looted from the Basilica. There is no clear date I could find to indicate when the stone pathways were built on part of the archaeological site, and only a small part of the site has a pathway to guide tourists. The rest of the site is open for visitors to walk around. Having personal experience of working in Nemea, I have seen visitors roaming freely choosing their own paths to the public site, and even sometimes climbing the ruins. The only restricted areas that are not accessible to the public are the excavation site and the conservation area. Those areas are closed off by a single rope or chain that indicates restricted access but that can easily be ignored.

There is a clear lack of structure in the visitor’s experience of the site, which causes concern about

the safety of the visitors themselves, as well as the safety and preservation of the archaeological remains.

What I learned from working in Nemea, was the extensive and detailed care and attention that goes into a site restoration. From the start of the restoration of the temple in the 1970s, when all but two columns were standing, to date, seven columns have been restored and the site is now accessible to visitors.

The most admirable aspect of this site is that visitors experience the history and essence of the site, without noticing the restoration work. It is so subtly preserved that one would think the state of the site is a result of graceful aging.

Nemea has been a case study with positive as well as negative examples of archaeological conservation and site presentation. All attention and funding for conservation has been given to the most prominent feature of the site- the Temple of Zeus- and all other interesting parts of the site have been tragically overlooked.

As beautiful as the Temple may be, the scarcity of organized pathways and information boards throughout the rest of the site is a shortcoming. This case study demonstrates that small interventions such as organized pathways and information nodes can make a big difference to the experience of the visitor, and the preservation of the site; they are the common denominators between all three of the case studies and I intend to emphasize them in the development of the connection between Petsas House and the main archaeological site of Mycenae.

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## Chapter 4: Mycenae. Site Analysis

Site Analysis shown through photographic description

### ARCHAEOLOGICAL SITE APPRAISAL:

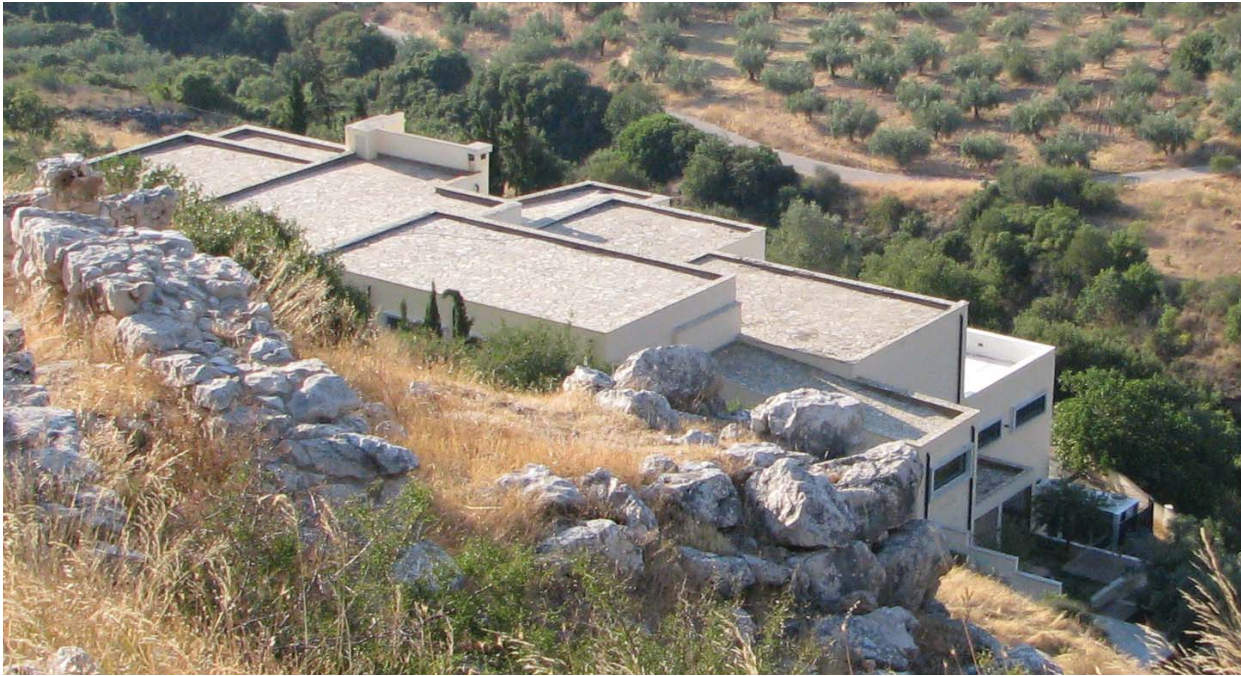
1. Archaeological Museum of Mycenae
2. Tomb of the Lions
3. Car Park, with Post Office and Cantina
4. Lion Gate. Entrance to Mycenaean Palace
5. Threshold to archaeological site. Ticket sales structure
6. Petsas House
7. Tomb of Aegistius
8. Tomb of Clytemnestra
9. Grave Circle B
10. Washrooms

[Fig 4.0] Image to the left: Plan of Existing Site





## 4A: Mycenae - Visitor Accessible Site



**[Fig 4.1] Archaeological Museum of Mycenae**

Opened in 2004. Located at the lowest part of the archaeological site on the north side of the ancient palace of Mycenae. The museum displays permanent samples of different Mycenaean finds, as well as providing space for studies and artifact conservation for university students and archaeological researchers.



**[Fig 4.2] Tomb of the Lions**

Located on the north side of the archaeological site, on the west side of the museum. The Tomb is available for viewing to the public, however it is not wheelchair accessible. It is an example of a “Tholos Tomb” with the top part of the tomb missing. The Tomb has gone through elaborate anastylosis to be in its current condition however, for safety purposes, access to the interior is restricted.





**[Fig 4.3] Car park, post office (left), cantina (right)**

The current car park is on the west side of the archaeological site, outside the site fence. Amenities include a post office and a cantina. They are managed by the Mycenae/Argos municipality, and operated by local employees, through term jobs. The biggest issue here is the lack of shade for parked cars and for visitors.



**[Fig 4.4] Lion Gate. Entrance to Mycenaean Palace**

The Lion Gate (often also called Lions' Gate) has been the most iconic part of the archaeological site of Mycenae. The monumental size of the stones has earned it the name "cyclopean walls" (believed they were built by cyclops, in mythology), whereas the relief of the Lions above the threshold is one of the earliest specimens of sculpture in Europe.

"It was built about 1250 BC. It is about 3m wide and 3.10 m high, and is made of four large blocks of conglomerate, a threshold, a lintel and two side posts. Masking the relieving triangle over the lintel there is a block of hard limestone. The block carries the famous 'Relief of the Lions'." (UNESCO, 2014)





**[Fig 4.5] Threshold to site. Ticket sales structure**

The archaeological site of Mycenae is fenced all around by a high, visually permeable metal fence. The only access to visitors is through this gate which thousands of people go through every year.



**[Fig 4.6] View of farming orchards to the north of the site.**

The agricultural fields surrounding the site are one of the character-defining elements of Mycenae. Mycenaean farmers have cultivated olive trees, grains such as wheat, grape vines, and fig trees for thousands of years. Fruit tree species such as oranges, mandarins or other types of citrus have only been cultivated in Mycenae for the past few decades.

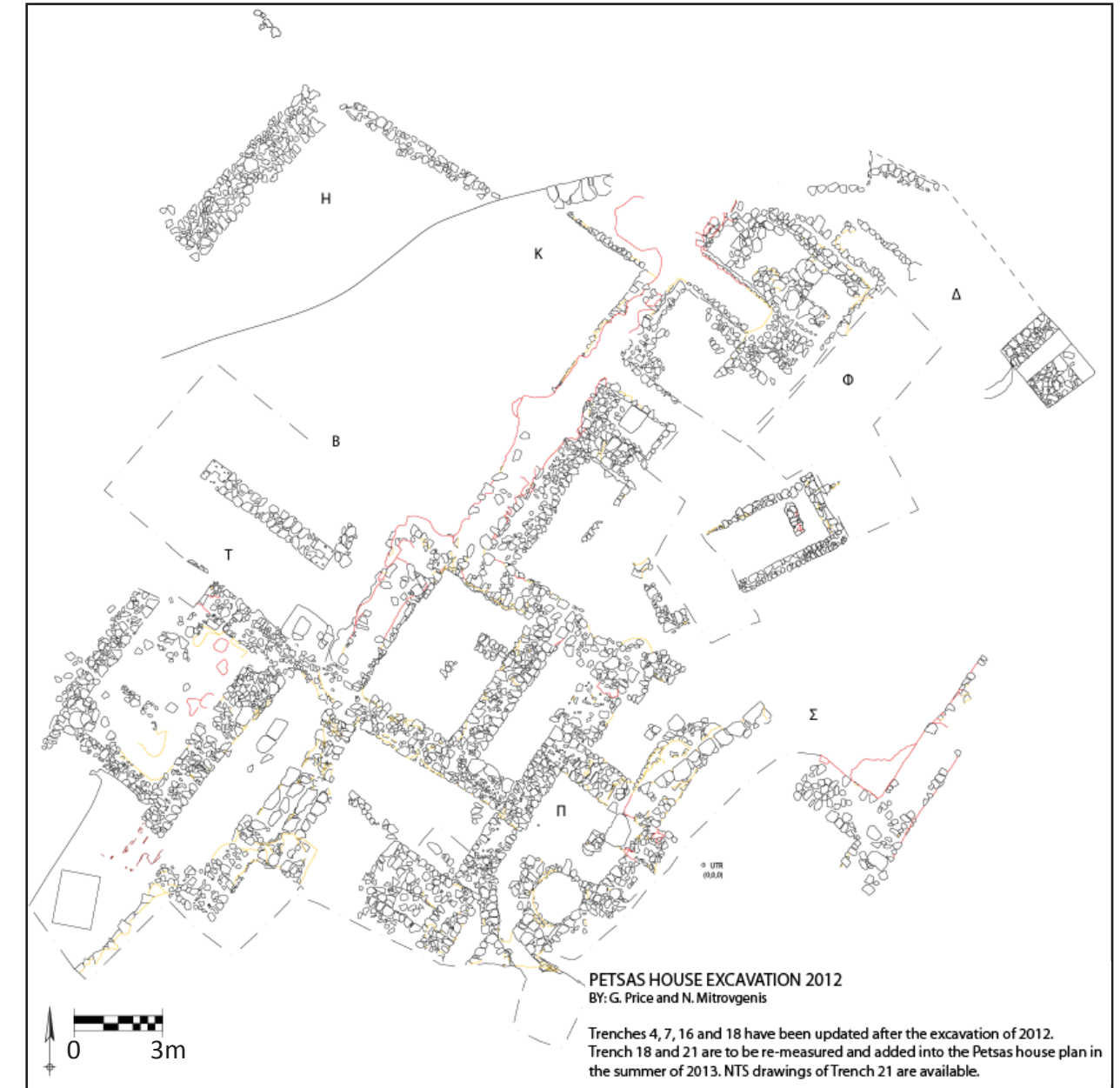


## 4B: Mycenae - Petsas House excavation site



**[Fig 4.7] Petsas House. Not actively accesible to the public**

“The Petsas House is a building complex in the settlement of Mycenae that was destroyed by earthquake and fire in the late 14th century BCE (LH IIIA 2). It consists of two parallel rows of rooms situated along a terraced slope that originally supported a frescoed upper storey for domestic use. Most of the ground floor was used for the industrial production and storage of pottery. Excavation by the Archaeological Society of Athens was instigated in 1950/51 by Ioannis Papadimitriou and Photios Petsas, and renewed in 2000 by Kim Shelton as Field Director.”  
(Ahma.berkeley.edu, 2014)



**[Fig 4.8] Petsas House excavation site plan. See fig 4.0. #6**

The greek letters on the plan represent the trenches excavated in the year 2012.



## Chapter 5: Design Process, Proposals and Options

### Design Process

In the summer of 2010 I became involved with the Petsas House project. Initially I knew nothing about Petsas House, except for the beautiful finds that I had the honour to draw. With time, my interest grew through hearing stories about the site, particularly that it was possibly a place where pottery for a range of purposes had been manufactured. I was fascinated by the variety of finds and was truly moved when I would see the fingerprints of the artists that had been baked with the ceramics they had created thousands of years before. I became part of the team that manually measured the site to produce a site plan. Later I found out that, twenty years prior to my work there, my father worked as a digger at the same excavation site. The two summers later, I joined the excavation team doing site surveying and plan drawings of the excavation trenches, walking through the trenches, and taking in the marvel of that site. With every layer a potential new story was uncovered, and I felt as though I was travelling back in time. I became more attached to this site, and incredibly honoured to be included in this process. Petsas House, to my mind, emerged as a jewel that should be displayed to the world; a jewel that still had so many stories to tell.

[Fig 5.0-5.4]: The images are part of the site inventory but are included here as a source of inspiration for the design proposal.



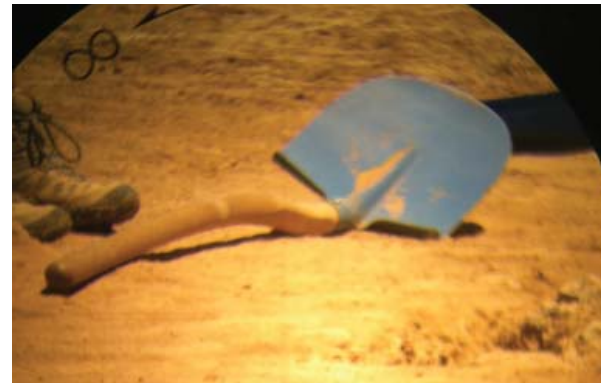
[Fig 5.0] Site Surveying at Petsas House



[Fig 5.1] Through the site surveying instrument



[Fig 5.2] Through the site surveying instrument



[Fig 5.3] Through the site surveying instrument



[Fig 5.4] Through the site surveying instrument





[Fig 5.5] The Great Ramp



[Fig 5.8] Information signs



[Fig 5.6] Shaded resting place



[Fig 5.9] Accessibility ramp



[Fig 5.7] Accessibility ramp



[Fig 5.10] Fig tree growing through ruins

As I began thinking about excavation sites, and how fascinating it was to watch the process of excavation, I understood how much more sensitive they are than already excavated archaeological sites, and how much more vulnerable to the public. Due to exposure to the natural elements, newly excavated sites that have not yet been through the process of conservation, are more prone to soil erosion, and corrosion. In addition, if the excavation sites are not secured from public access, they could cause a safety hazard or could become places of looting or vandalism.

In the past, the archaeological site of Mycenae underwent completely different processes of discovery, from accidental discoveries to war looting to looting disguised as official excavations, to more looting from local people feeling entitled to the finds to finally official and legal excavations. Thinking about the site of Mycenae, which is today accessible to the public, as to most ancient and modern Mycenaeans, I felt pride and protectiveness. Pride because of the international interest and admiration it possessed, but protectiveness because of all the hardships it has endured through history.

Being so personally connected to that place made it difficult initially to describe my intentions for it. I wanted the world to see and be able to experience it and to learn from it, to take with them a positive impression and admiration that they would want to share with others. I wanted visitors to be safe and comfortable so that their experience would be the best possible. I wanted the visitors to be able to witness the wonder of uncovering history, but I also wanted to protect as much as possible of this treasure from any further harm.

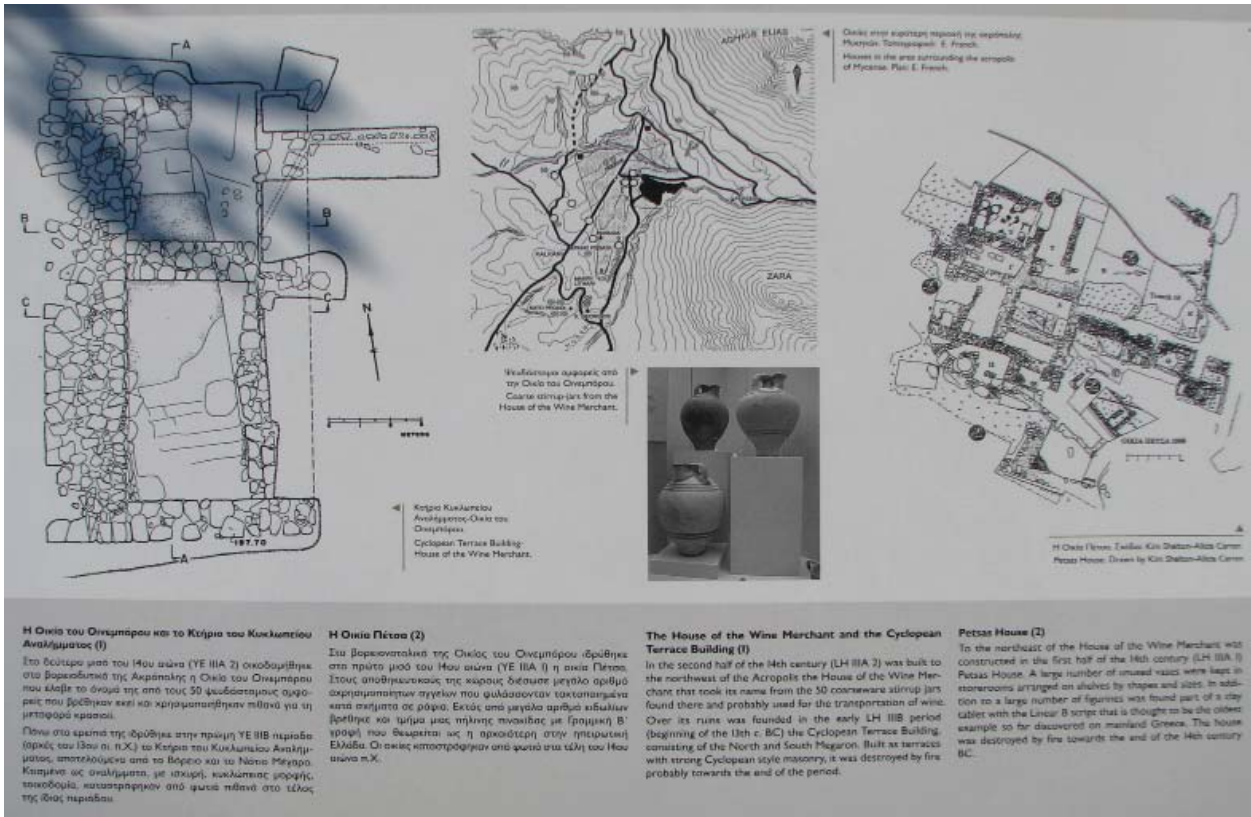




[Fig 5.11] Existing sign describing the Palace



[Fig 5.12] Existing sign describing Underground Cistern



[Fig 5.13] Existing sign Describing Petsas House

With the encouragement and guidance of my advisors, and after looking at other archaeological sites as case studies, I started thinking about the issues present on site. Most of these issues are due to the extreme heat conditions that occur on the archaeological site during the summer months , when it is most visited.

## Brief/ Issues to be addressed

1. Petsas House is disconnected from the main archaeological site
2. Vehicular circulation is cramped especially with buses upon arrival at the site
3. Walking distances can be quite exhausting during the summer months due to steep topographic variations and extremely high temperatures
4. Shade and resting spots are minimal throughout the site
5. Most signage either is outdated or inconsistent throughout the site (see Fig 5.11-5.13).
- The content of the interpretive signs is adequate based on the existing archaeological information. They should be updated in the future, once additional information is obtained.
6. There is a lack of shaded parking with a result that most cars overheat in the summer.
7. There are limited shaded areas for visitors to wait for their buses.
8. Limited or outdated amenities for visitors. The cantina and post office are housed in two old, very small separate trailers that lack visual interest and are in desperate need of more space.
9. Site security is limited due to the low budgets, resulting in theft, vandalism as well as visitor safety.

[Fig 5.11-5.13]: The images are part of the site inventory but are included here as a source of inspiration for the design proposal. They are not meant to be viewed for their content but their appearance and condition.





These issues indicate opportunities to improve visitor experience, in particular:

**1. Integration of Petsas House with the main archaeological site.**

With the excavation site of Petsas House being separately fenced off from the main archaeological site and currently not accessible to visitors, how can it be displayed in such a way that it will not obstruct the excavation processes but also provide the visitor an insight. The space between Petsas House, the main archaeological site, and the Tomb of the Lions, which is in an olive grove belonging to the Demopoulos family, would be utilized to create a connection.

**2. Visual and functional integration of the car park. Making the surrounding landscape more visible from the car park.**

The view from the car park to the main archaeological site is mostly obstructed by the tall pine and eucalyptus trees, with the view opening up and revealing the site just after the main road before the main fence (see Fig 2.3 page 20-21) Providing an elevated viewing point from within the car park would enable visitors to enjoy a panoramic view of the archaeological site, and the surrounding landscape.

[Fig 5.14] Existing Site Plan



### **3. Making the journey from the car park to the museum and entrance more comfortable.**

#### **Making pedestrian movement work throughout the site to improve in visitor experience.**

The distance visitors have to cross from the Lion Gate to the ticket office is 150 meters with an incline of approximately 10%. The pathways within the walls and throughout the Palace are approximately two kilometres in total, depending on the route selected. These distances may be reasonable for a fit and able individual but, combined with the extreme conditions of heat, strong north winds and often slippery unstable and inconsistent ground surfaces, they can make for a challenging hike. Given that the demographic of visitors also includes not only average and fit individuals but also elderly and/or disabled, it would make a considerable difference to include a tour tram to transport visitors to certain locations around the site. When a part of the site is not universally accessible it should be indicated and an alternative should be provided. Some of the alternatives currently existing are 3D models and information boards in the site museum. In the future, virtual tours would be a more realistic alternative.

### **4. Presenting views of the site and integrating resting/viewing spots with signage throughout the site.**

The purpose of the Citadel being built on a hill was to provide a better defence system against attacks, as well as a vantage point of the surrounding landscape, with the rulers of the time being able to oversee their subjects or detect invaders. Today these vantage points provide the visitors with beautiful and memorable panoramic views of the ruins and surrounding landscape.

These prime locations could enhance the visitors' experience if they could also provide subtle yet essential comforts such as shade, a place to sit and a source of water. With the information boards being displayed at the same spot, visitors could pause to take a deep breath, sit under the shade, refill their water bottles and read about that part of the site.

Due to many obstacles such as the rough terrain with a large amount of exposed bedrock, and the strict rules for construction permits from the Archaeology Department of Greece, most of the available space has not been excavated, and, on account of the potential for important finds lying beneath the surface, and of the limited budget available for any kind of intervention, the following proposals are relatively subtle and low-key.

They include:

- Designated additional pathways to lead visitors around Petsas House, with a view-box on the south side of it to provide a framed view and information through interpretive boards.
- A bus loop/drop off with the entrance to the fenced site moved closer to the Museum and Citadel.
- A viewing tower located where the current cantina is, that will provide ample space to accommodate the cantina and post office, as well as providing a shaded place for visitors to wait for their bus, and enjoy panoramic views of the site and surrounding landscape.

Due to the non-traditional character of the site, instead of preparing one final proposal, I decided to present two options that differ significantly in their approach to the circulation issues.



## Olive Grove Connection

In Figure 5.18, a series of connective pathways is created between the Museum, the Tomb of the Lions and the main archaeological sites. The pathways are meandering through the existing olive trees and around the fenced excavation site of Petsas House. This provides visitors with

an outdoor learning space that could be part of their tour and where they can learn about the history and significance of excavations and site conservation. During excavations they will be able to observe from the periphery of the excavation site, and have an additional place to gather while waiting for their tours or buses, or simply to sit on a seating ring under an olive tree and rest.



[Fig 5.15] Olive Grove Connection

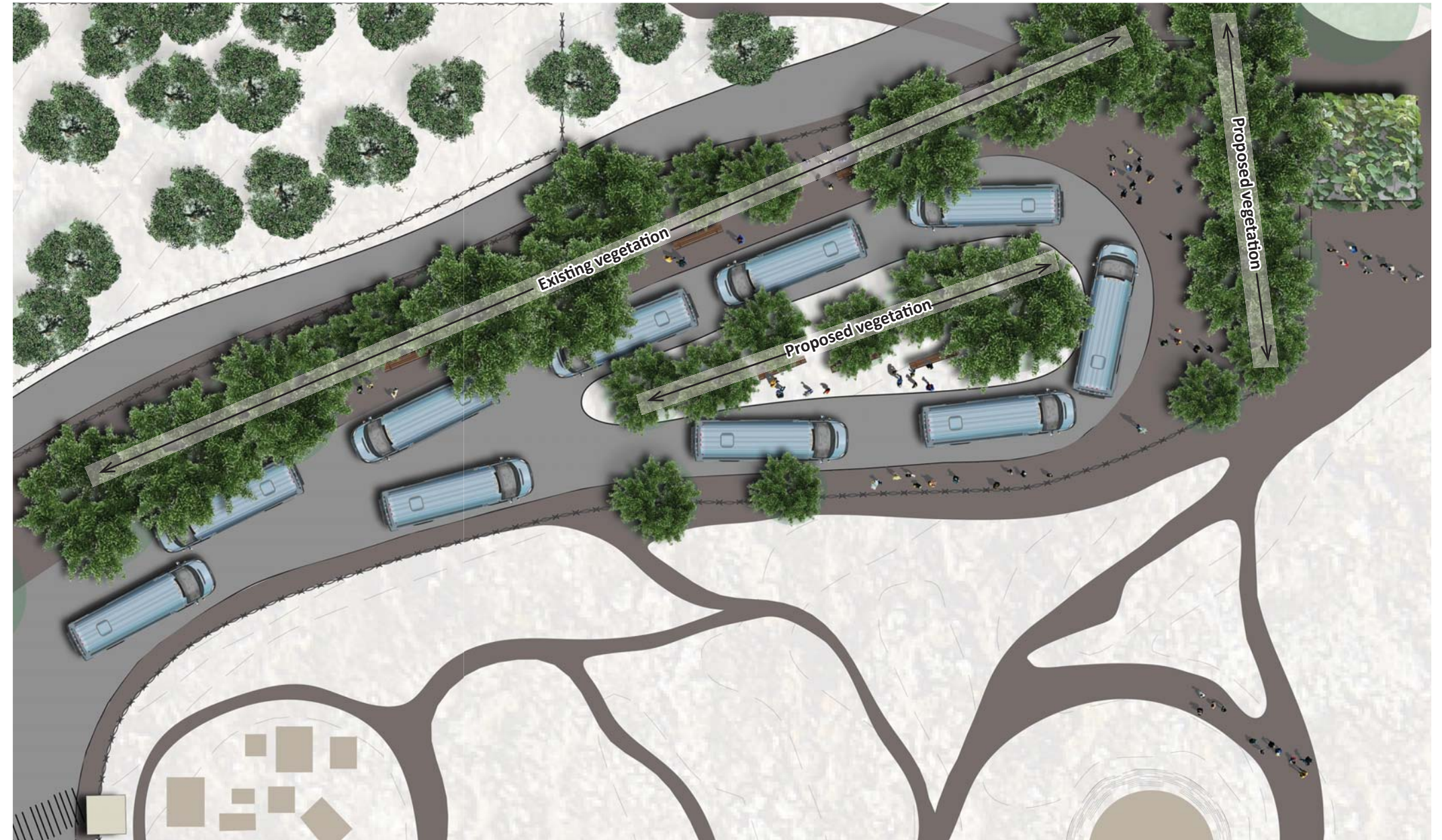


[Fig 5.16] Existing seating ring precedent.



## Bus Turnaround

In Figure 5.17, the ticket office has been moved closer to the Museum and the Lion Gate, the fence has been relocated and a bus turnaround has been designed to fit into the existing open area of the archaeological site. In this proposal the site has been expanded to fit the Olive Grove Connection, and this would resolve the issue of bus overcrowding upon arrival. Visitors would be dropped off at this bus turnaround, walk to the new entrance, get their tickets and from there, either as part of a tour or in individual groups, navigate the site or visit the Museum. Several new trees would also be planted in order to create more shade and to provide a shaded area with vegetation compatible with the existing trees along the access road, thus maintaining the character of the place.



[Fig 5.17] Bus Turnaround



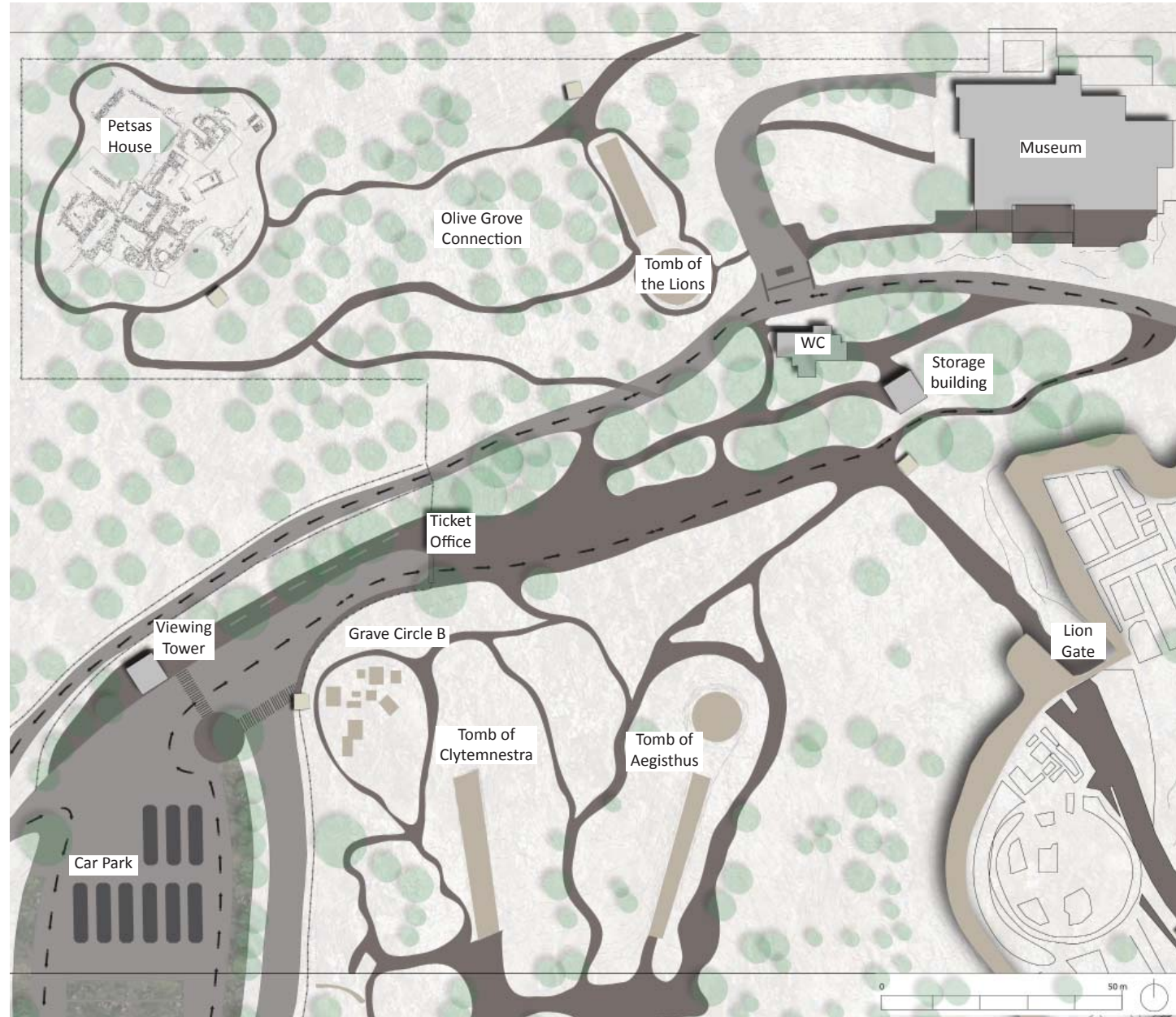
## Car Park and Viewing Tower

In Figure 5.21, the cantina and post office have been relocated into a new Viewing Tower. In addition, the turn from the main road to the car park area has been widened to accommodate a safer, more comfortable bus access. Pedestrian crossing signs as well as side walks have been placed. The perimeter of the car park has been lined with a continuous pergola to provide shade to all parked cars. Grapevines, which have been an indigenous plant to the area since antiquity, will thrive in the area, and provide a thick canopy as well as providing edible fruit. The arrow lines in Fig 5.21 p 98 show the proposed route for a shuttle bus that would pick up and drop off tourists from the car park to accessible parts of the site, such as the main gate and the Museum.



[Fig 5.18] Car Park and Viewing Tower



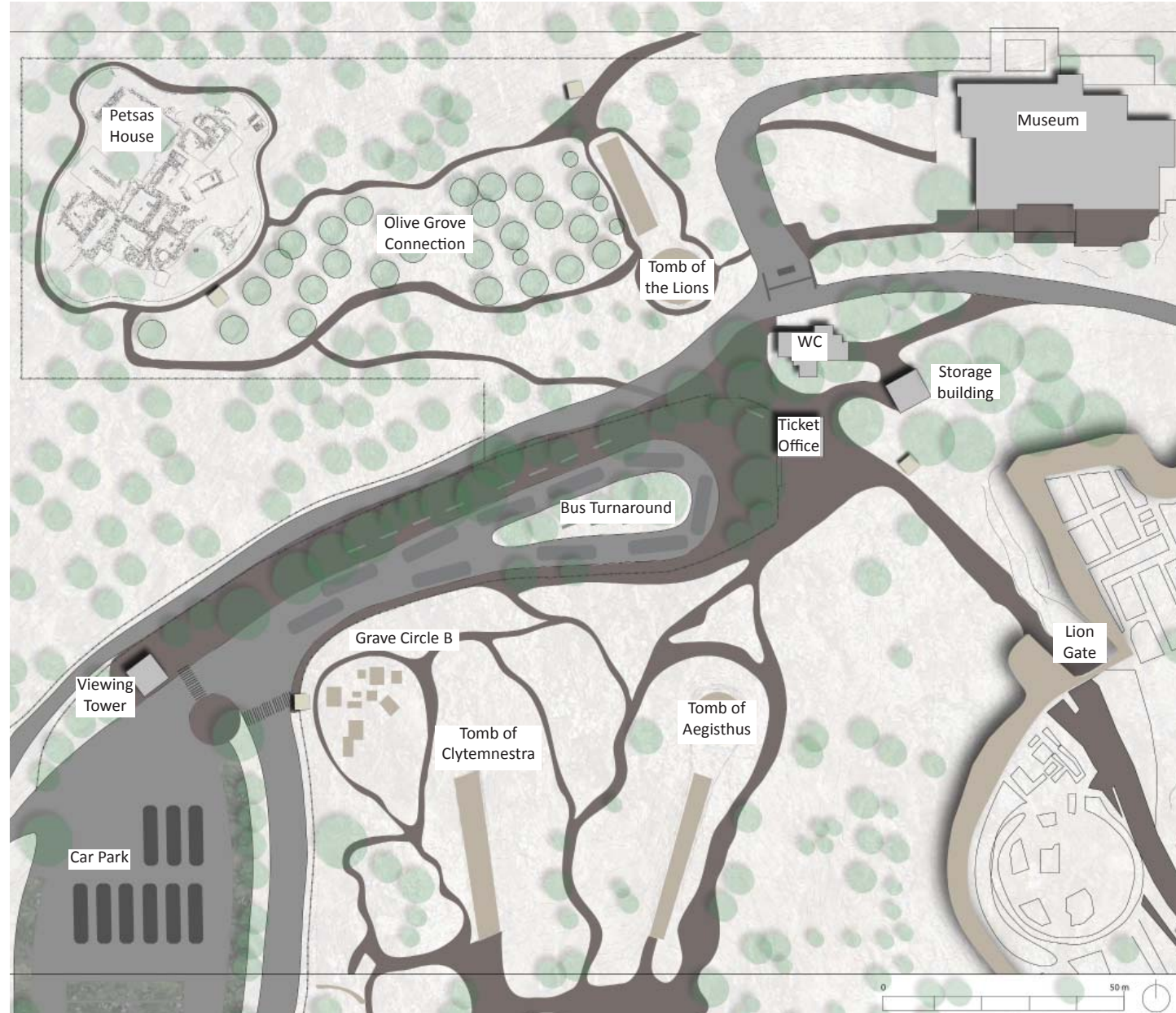


[Fig 5.19] Option 1

## Option 1

In the first option (Fig 5.19), the plan of the main archaeological site remains largely unaltered. The changes proposed are the Olive Grove Connection that is consistent with the second proposal (and which is further explained in Fig 5.20). Staff parking is moved from being close to the ticket office to being in the car park area. This allows for a wider entrance access and a proposed route for a shuttle bus (shown as black dashed line in Fig 5.19). This shuttle bus will make several stops around the site as well as in the car park area, for the transportation of visitors whose tickets include the shuttle bus fare. The shuttle bus proposal would help to raise the archaeological site revenue, as well as providing additional comfort to the visitors and creating a more memorable experience. The car park and viewing tower proposals are treated the same in both alternatives, as outlined in Fig 5.18.





[Fig 5.20] Option 2

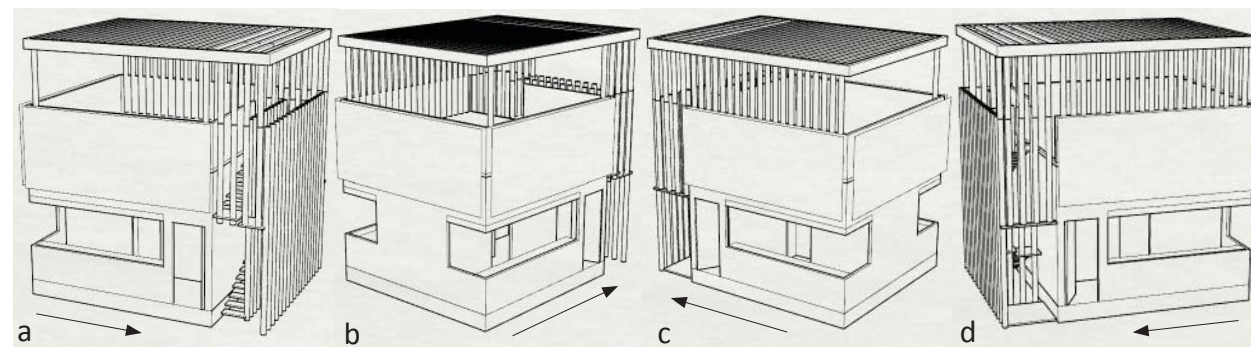
## Option 2

In the second option (Fig 5.20) there is a more significant change to the main archaeological site. The main entrance and ticket office are moved closer to the Museum and the Lion Gate. This proposal would certainly be more costly than the first proposal, as the changes in infrastructure are more significant. The Olive Grove Connection is consistent with the first proposal. The car park and Viewing Tower are consistent with the first option, as shown in Fig. 5.18.





[Fig 5.21] Viewing Tower and Pedestrian Crossing



[Fig 5.22] Viewing Tower

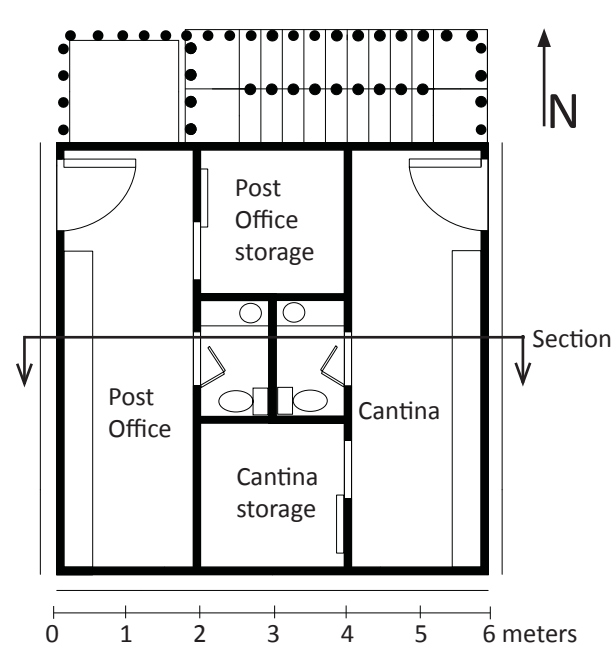
## Viewing Tower Design

The initial intention in the Viewing Tower design was to propose a structure that is as simple as possible so as not to distract from the significance of the archaeological site, and that responds to the history of the site, both in architectural style and the palette of materials.

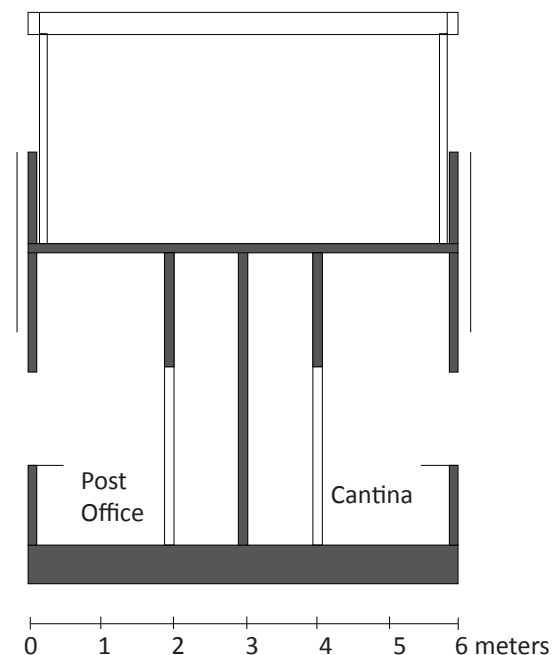
The main purpose of the viewing tower is to provide an elevated vantage point of the archaeological site from the outside, as well as a 360° view of the surrounding landscape. The Tower should provide visitors with an easy access by stairs as well as a mechanical elevator for wheelchairs (See Fig 5.22,c and d). It would provide shade and the space below it would be utilized for replacing the outdated cantina and post office.

Inspired by ancient Mycenaean residential architecture of monolithic buildings, simple materials and pergolas, and the most common materials for construction (wood, fabric, stone), were employed in the design shown in Figs 5.22-5.25.





[Fig 5.23] Viewing Tower plan



[Fig 5.24] Viewing Tower vertical section

The specific materials selected are olive wood, linen and concrete. Olive wood is a hardwood and most representative of the abundance of olive trees that exist in the area. This wood could be obtained from trees that may have been cut for the construction, as well as from surrounding olive groves that are pruned annually. Linen, the main type of fabric used in ancient Mycenae, would be made with fibres of flax like those that ancient Mycenaeans cultivated. Concrete, being a simple and more contemporary representation of stone, would reflect the monolithic character of the cyclopean walls.

The structure has a square plan split in two mirror halves for the cantina and post office (see Fig 5.23 - Fig 5.24). Mechanical awnings of industrial grade linen would provide shade during the day and could also be used as projection screens during the summer festival. All railings and the pergola would be made of olive wood, and would support grape vines. These would provide shade for visitors and produce fresh fruit for their enjoyment.

The tower rooftop is intended to accommodate ten to fifteen people at a time while archaeological site personnel supervises the area for visitor safety.

The viewing tower would be under the management of the Ephorate of Prehistoric and Classical Antiquities, which also manages the archaeological site, but the cantina and post office services would be contracted to local Mycenaeans.



[Fig 5.25] Viewing Tower rendering looking east



## Critical Review of Final Design and Conclusion

### **A. Thorough personal historical knowledge of the site and practical investigative work there.**

Describing my personal experiences and memories at Mycenae, which ultimately led me to choose this topic of research, was my way of giving this practicum document a more personal character.

Part of my design process was taking photographs of the site while I was in Mycenae. I observed everything that I encountered from the surrounding landscape, to the visitors, the information signage, the excavation and restoration tools, to the stones that made all the ancient walls. I examined the issues of the site in more detail, and even though I believe that the conservation project that was contracted to Dr. Clair Palyvou was successful and effective, I also believe that more measure could have been taken to provide further comfort and safety for visitors. A list of issues of the site was drawn up and the proposed solutions started to form.

Upon undertaking the research of archaeological sites as designed landscapes and despite my passion for historical sites and archaeology, I had several obstacles to overcome. First, was the question of how to narrow the topic enough so that the outcome would be focused and informative. This type of site was different from many other students' practicum sites, I therefore had to adapt my existing knowledge and develop a process to fit the needs of the site, as well as my intentions for it.

### **B. Comprehension of the issues confronting this and (as shown by case studies) similar historic/ tourist sites.**

The archaeological site of Mycenae was validated by examining its history, providing its description as a World Heritage Site, its character-defining elements such as the archaeological site, the topography, location and vegetation. As a combination of these character-defining elements, Mycenae is a unique site not only locally but also internationally. A series of photographs displays the natural beauty of the archaeological site of Mycenae throughout the document, with maps locating the position and angle of most photographs taken. With the most iconic and internationally recognizable feature of the site, the Lion Gate, drawing most attention from the public, I wanted to show that the rest of the archaeological site is, in fact, equally admirable and breathtaking. The photographs of Mycenae also show the most recently updated pathways throughout the site. They also show the absence of specific amenities that could make the visitor's experience more pleasant and memorable. The issues of visitor safety, as well as the security of the site from vandalism, theft and deterioration, take priority in budget spending, over presentation of the site.

In addition to carrying out research specific to Mycenae, I examined the archaeological sites of Orongo, Knossos and Nemea as comparable to Mycenae. These sites were so different from each other, from the way they had been conserved and presented, to whether they were officially inscribed as World Heritage Sites. Despite their differences, however, the similarities between them were the most important consideration. Through my research of the three sites,



I observed that each of them, just as Mycenae, had to deal with issues such as the progressive deterioration of the historical resources due to weathering, increased visitation and overuse, vandalism, theft, and visitor safety.

Orongo was inscribed as a World Heritage Site in 1995 by UNESCO and underwent conservation and redevelopment from 2002-2010. The redevelopment included conservation of specific site features as well as conservation of existing pathways, construction of new ones and construction of a visitor centre. The most important lesson learned while examining Orongo, was how influential the role of a landscape architect can be in an archaeological conservation and redevelopment when there is collaboration with the local community.

Knossos was nominated to become a World Heritage Site in 2014 but its status has not yet been established. Sir Arthur Evans excavated and restored the site in the first three decades of the twentieth century, and though well meaning at his time of work, the interventions he performed are irreversible and damaging to the historical artefacts and should, therefore be avoided today. Seeing the changes that Evans' intervention has caused to the original finds, and how after all these years, those interventions have also deteriorated along with the original artefacts, the most important lesson I learned was what not to do in a future conservation and redevelopment.

Nemea is unfortunately not yet inscribed as a World Heritage Site, and if an application for nomination has been submitted, it is not yet available to the public. The intellectual rigor of the conservation team of the Temple of Zeus was greatly inspirational and educational towards

this practicum. Even though I was unable to find information on when and who constructed the visitor pathways throughout the site, I was able to see how important it is for the visitors to be guided through the site, and to keep their distance from ancient artifacts for their protection. Additionally, I observed that by conserving and restoring only the Temple of Zeus, the rest of the site then is left unbalanced and disconnected.

After the case studies, a site analysis of Mycenae was shown through photographic description. These photographs constitute an appraisal of the site outside the cyclopean walls, as this is the focused area of study, and they include the Archaeological Museum of Mycenae, the Tomb of the Lions, the car park with the post office and cantina, the Lion Gate, and the main entrance with the ticket office. Petsas House is presented separately, as it is the excavation site which is currently not available to the public, and part of this practicum was to design a connection between Petsas house and the pain archaeological site.

**C. A low cost, low disturbance approach that seeks to protect and present to a growing number of visitors the resources that exist on the site.**

As a response to the the issue of integrating Petsas House with the rest of the archaeological site, while at the same time protecting it from vandalism, theft and deterioration, was to enclose the excavation site with a visually permeable fence, and create a conservation safe perimeter pathway around it, connecting to the rest of the archaeological site (See Fig 5.15). The existing olive trees would remain in place and seating rings would be placed around their



trunk to provide resting spots for visitors in the shade. The trees could remain the property of their current owner, who, in agreement with the site management and directors, could harvest the olives.

The proposed redevelopment of the car park allows for most cars to be parked in the shade of grape vines, and a Viewing Tower was proposed in order to connect visually the main archaeological site and the exterior of the fenced site. This Viewing Tower proposal is a response to some issues, such as the lack of shaded waiting areas for the visitors, it provides panoramic views of the site and surrounding landscape, and integrates the post office and cantina in a single, semi-permanent structure.

The long distances that visitors would have to cross while going uphill in the extreme heat of the summer months would be made easier with the proposal of two different options- a bus turnaround, or the incorporation of a shuttle bus that could bring the visitors closer to the Lion Gate as well as transport them from the Museum back to the car park.

Within the cyclopean walls of Mycenae, proposed key locations would have small discrete and removable structures made with olive wood and linen that would integrate framed views and information panels, and provide a source of water for additional comfort to the visitors.

#### **D. Principles for site interpretation and presentation established by ICOMOS**

During my research I realized that a set of guidelines already existed with respect to conservation and presentation of archaeological sites. This was published by the ICOMOS

Charter in 2008. (see Appendix 2, p 114). Guidelines for conservation and redevelopment have been shown through the design proposal and options.

With the intention that the proposals be applicable to Mycenae, and to other comparable archaeological sites, I based my objectives on the principles for site interpretation and presentation established by ICOMOS.

These 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” (ICOMOS,2008)

Both recommended options respond as far as possible to these principles. The main difference between the two, however, is that in the first proposal the bus turnaround is irreversible. In both proposals, visitors are offered easier physical access to the site, as well as multiple visual connections.

Components added to the site such as the viewing tower, the viewing boxes and the parking pergolas, would all be comprised of local material, such as olive wood, linen and concrete, as well as all planting of species that are indigenous to the area, such as olive trees and grapevines.

In the spirit of the Nara Document (ICOMOS, 2008, Appendix 2, p 122-123), all the components in the proposal are designed in a manner sensitive to the character and authenticity of the site. They also recognise the importance of historic, environmental and budgetary factors.

The sustainable redevelopment and conservation options that I have presented are the beginning of a process that should continue and evolve as new information is obtained through archaeological and historical research, monitoring of the condition of the heritage resources, and analysis of changing visitation patterns. In other words, the conservation of the site should be dynamic. All of these true to respecting the heritage character and values of the site.



## Appendices

## Appendix 1



### Issues of conservation and reconstruction in archaeological sites: The example of the Palace of Minos at Knossos



#### Essay topic

1. *The reconstruction of the Minoan palace at Knossos provides an opportunity to see firsthand what an ancient site may have looked like. However, the reconstruction has been heavily criticized by modern scholars. What are the pros and cons of reconstruction of a site? What are some of the problems with the reconstruction? (Things to consider: accuracy, conservation)*

The main issues of this paper are the conservation and the reconstruction of archaeological sites. Indeed, the aim of archaeology is to present the findings of the past to the public, in the most objective way<sup>1</sup>. However, archaeological findings are never completely objective because they are presented in a specific way, depending on who did the excavations. Archaeologists are always influenced by their backgrounds, beliefs, prejudices, interests, and expectations<sup>2</sup>. So, how authentic are the ruins presented to the public?

The excavation of the Palace of Minos at Knossos, did by Sir Arthur Evans between 1900 and 1930, is a good example of such issues. Indeed, Evans' reconstruction of the palace *in situ* has been widely criticized for a range of reasons.

In this paper, I will argue the following thesis: *if conservation and consolidation made at Knossos by Evans can be justifiable, Evans' reconstructions according to his own and very personal interpretations are much more controversial.*

I will first argue that Evans did the reconstruction in a specific time (very beginning of the 20<sup>th</sup> century), when archaeological techniques were not so performing. He did it with fastidiousness and attention to details, in an aim of conservation and safety. Then, I will argue that Evans reconstitution can be criticized for its inaccuracy and its very personal speculations and views, which made the palace of Knossos Evans' palace. Thirdly, I will show that other means of conservation and reconstitution can be used for both preserving the authenticity of the site and present an enjoyable representation of the past to the public.

First of all, it is important to look at the context of the excavations at Knossos. Excavations began on March 23, 1900. Sir Arthur Evans was assisted by Duncan Mackensie and David Hogarth, who was the director of the British School of Athens at that time<sup>3</sup>. Indeed, the British School of Athens was very involved in Knossos<sup>4</sup>. At that time, techniques of excavations were less developed than today and digs were made less carefully. That is why we have to be careful to compare Evans' work with

<sup>1</sup> BAHN Paul, *Archaeology, a very short introduction*, Oxford University Press: Oxford and New York, 1996, (Ch9: Presenting the past to the public)

<sup>2</sup> BAHN Paul, *Archaeology, a very short introduction*, Oxford University Press: Oxford and New York, 1996, (Ch9: Presenting the past to the public)

<sup>3</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the "Palace of Minos" at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>4</sup> EVELY Don, *"The British School of Athens at Knossos"*, <http://www.bsa.ac.uk/knosos/index.htm>



his contemporaries and not with modern techniques of archaeology, which would be anachronistic<sup>5</sup>. It is important to keep it in mind when criticizing, later in the paper.

How did the excavations take place? After having discovered large storage areas, the team led by Evans excavated the later named “Throne Room”. It was a very decisive discovery in the digs because Evans understood that he had excavated a major building which dated back to before Mycenae<sup>6</sup>. But in the Throne Room, there were wall paintings, and Evans was rapidly confronted to conservation’s issues. Indeed, frescoes were fragile and vulnerable to weathering; for instance, the Throne Room was left open to the sky the first winter and it suffered rain damage<sup>7</sup>. That is why Evans began his “reconstitution” (according to his own word), that is to say rebuilding, reconstructing and redecorating rooms. Thus, according to John Papadopoulos<sup>8</sup>, the pre-war period was for Evans’ team the stage of excavation and consolidation to preserve fragile remains. For instance, Evans roofed over the Throne Room in 1901 to protect it from the rain<sup>9</sup>. Moreover, another purpose was the safety for the excavators: walls needed to be consolidated in order to avoid collapsing in further excavations. Indeed, archaeological digs are always very dangerous. For instance, Professor Spyridon Marinatos died during excavations on Thera in 1974 because of a collapse<sup>10</sup>.

Furthermore, Evans didn’t reconstitute the palace without paying attention to details. He was a very learned person, with a solid background in antiquity studies (he studied in Oxford). Evans’ father was an antiquarian and collector, so “Evans brought up in a home where antiquity, properly and scientifically studied, mattered greatly”<sup>11</sup>. Thus, in order to reconstitute the palace of Knossos, he used a technique called “architectural stratigraphy”: he documented each stratum, recording the depth at which each object was found and established a chronology of successive strata of the palace<sup>12</sup>. He also used a lot of workforce (around 180 men), which let him to be efficient in excavations.

Besides, for a long time, scholars supported Evans’ reconstruction. One of the most famous is James Graham who wrote that “restorations add much to the interest of the ordinary visitor because he is helped to understand”; “un-restored buildings are

<sup>5</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>6</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>7</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>8</sup> The Getty Conservation Institute, *The conservation of archaeological sites in the Mediterranean region*, Getty publication, 1998 (article “Knossos”)

<sup>9</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>10</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>11</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>12</sup> FARNoux Alexandre, *Knossos, searching for the legendary palace of King Minos*, H.N. Abrams, New York, 1996

often quite as misleading as over-restored”<sup>13</sup>. Here, another purpose of reconstruction appears: showing the past to the public. Reconstitution could be a means of making the past and the history attractive to tourists. Thus, Evans wrote in 1927 in his diary: “the modern visitor can now obtain something of the original effect of this monumental entrance hall” (about the south propylaeum)<sup>14</sup>. Evans wanted to give an idea of how the palace looked like. Moreover, if the visitor is informed and aware that what he will see is a reconstitution, he is not misled. Likewise, Georg Caro (a former director of the German Archaeological Institute) argues that “without restoration, the site would be little today but a heap of ruins” and he adds “how many restorations were essential and mandatory, little was unnecessary”<sup>15</sup>. Even John Papadopoulos acknowledged that “whatever its accuracy, Evans’ restoration conveys an idea of the original building”<sup>16</sup>.

If consolidation and conservation of collapsing remains are justifiable, (re)construction of additional features are much more controversial.

However, Evans’ reconstruction can be criticized for many reasons. It has even been said that the palace of Knossos had been destroyed and reinvented by Evans<sup>17</sup>. First, the distinction between conservation and reconstitution has to be enlightened. According to the United Kingdom Institute of Conservation (1983), “conservation is the means by which the true nature of an object is preserved. The true nature of an object includes evidence of its origins, its original construction, and the material of which it was composed (...)”<sup>18</sup>. So, it is obvious that this definition doesn’t correspond to Evans’ work. Even if his initial purpose was the conservation against the weather and against collapsing, he modified the nature and the materials of the original palace. In the “Grand Staircase”, he added beams and consolidate the walls with concrete. An even more serious problem was Evans’ addition of elements which he thought were originally present. For instance, the furnishings of the Throne room’s antechamber are the fruit of Evans’ imagination, since when it was discovered, it was empty<sup>19</sup>. Evans also reconstituted frescoes from fragments, without being sure that he was totally right; that is why he is often criticized for his inaccurate reconstruction. For instance, in the Throne Room, Evans and Gilliéron identified a griffon but they may have done some mistake, because the rest of the fresco was more like a naturalistic motif<sup>20</sup>. So, their interpretation is doubtful and modified the atmosphere of the room. It is sometimes even difficult to distinguish original remains from the reconstructions.

<sup>13</sup> GRAHAM James, *Palaces of Crete*, Princeton University Press, 1969

<sup>14</sup> Quoted in: HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>15</sup> Quoted in: GRAHAM James, *Palaces of Crete*, Princeton University Press, 1969

<sup>16</sup> Quoted in: HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>17</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>18</sup> CAPLE Chris, *Conservation skills, judgement, methods and decision making*, Routledge : London and New York, 2000 (Ch3: The nature of conservation)

<sup>19</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>20</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

It is clear that Evans followed his own perception and expectation of the palace of Knossos in the reconstruction. Thus, he named the chambers along with his interpretation: he saw the building as a royal palace from the beginning<sup>21</sup>. For instance, he saw the East wing as the “domestic quarter” of the palace (where the royal family lived), and he decided, because of some frescoes, that women and men were separated. Hence, he named the hall of the double axes “King’s Hall” and the hall connected to bathrooms “Queen’s Hall”.

In addition, Evans was a man of his time, and that led him to interpret some evidence in relation to the Victorian society of the beginning of the 20<sup>th</sup> century. Thus, he imagined that the smallest rooms were allocated to women because they would be supposed to be regarded as inferior. But actually the archaeological evidence indicates the contrary: on frescoes women are shown dressed with spectacular boldness, exposing their breasts. They are painted with attention and they seem to have enjoyed a dominant role on major ceremonial occasions<sup>22</sup>. Moreover, names he gave to the rooms constituted the familiar to a British gentleman of the early 20<sup>th</sup> century, such as the “Grand Staircase” (like in Windsor Castle). Evans approached Knossos with a Victorian bias<sup>23</sup>. That is a proof that the past is constructed and manipulated by the present.

Another problem of such a personal reconstruction is that our imagination and experiences are constrained: reconstructions closed off the field of possible meanings<sup>24</sup>. Evans’ speculations narrow off our own speculations about the palace’s possible original use: everything is fixed one time and not reversible<sup>25</sup>. Yet, the conservation ideal would be that everything could be change in the future; according to Hedley, “nothing ought to be done that cannot be undone”<sup>26</sup>

Was Evans the only one to practice this kind of reconstruction? The answer is negative. Actually, it was quite common in the 19<sup>th</sup> century. The French architect Viollet-le-Duc is a good example of interpretative restoration, even though he was aware of that: “to restore an edifice means to re-establish it in a fundamental state, which may in fact never have actually existed at any given time”<sup>27</sup>. The question in any act of restoration is: where to stop before doing something irreversible which would affect the original?

<sup>21</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>22</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch5: The Bronze Age palace: Evans’ interpretation)

<sup>23</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>24</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>25</sup> CASTLADEN Rodney, *The Knossos Labyrinth, A new view of the “Palace of Minos” at Knossos*, Routledge, London and New York, 1990, (Ch3: Arthur Evans and the 1900 dig at Knossos)

<sup>26</sup> HEDLEY G., “*Cleaning and meaning: the ravished image reviewed*”, in *The Conservator*. Quoted in: CAPLE Chris, *Conservation skills, judgement, methods and decision making*, Routledge : London and New York, 2000 (Ch5: Conservation Ethics)

<sup>27</sup> Quoted in: CAPLE Chris, *Conservation skills, judgement, methods and decision making*, Routledge : London and New York, 2000 (Ch9: Restoration)

Finally, in 1964 the *Venice Charter for the Conservation and Restoration of Monuments and Sites* forbade any reconstructions and reconstitutions *in situ*<sup>28</sup>. So, we will now examine the others means of reconstitution of the past.

Nowadays, the *in situ* reconstruction has been abandoned because it doesn’t let any other interpretation. Today, the general tendency is to let sites in ruins so that visitors are free to imagine what they want, and to produce reconstitution in a distinctive place. Interpretations of archaeologists about how the site should have looked like can be shown to visitors but these interpretations are not imposed to them *in situ*. Indeed, there are some issues of responsibility to the public: tourists may not appreciate to look at a false narrative. They don’t have to be paternally led by the reconstruction<sup>29</sup>. Some people criticized the site of Knossos, speaking about a kind of “Dysneyfication”, especially because of the bronze bust of Evans in the West Court<sup>30</sup>.

Moreover, for a few decades, the progress of new technologies let us more possibilities for representing the past. Thanks to computer-generating images, sites can be reconstituted in three dimensions. This technique is easily reversible and lets the interpretation open for the future. As far as conservation’s issue is concerned, some reconstructions next to the original site can be made for tourists. For instance, the Lascaux Cave in France (a prehistoric cave) was very damaged by mass tourism. That is why, in 1963 the original cave was close to the public and a very accurate replica was made for visitors<sup>31</sup>. However, we should not mix scientific and touristic interests<sup>32</sup>. Presenting the past to tourists should not lead archaeologists to damage archaeological sites. The example of Pompeii shows us the danger of mass tourism without protection of the site.

How can the past be represented in another way? Since the reconstitution of an archaeological site is always hypothetical, experimental archaeology (with aims to reconstitute the ways of living of past people by using the same mode of fabrication of tools houses...) seems to be an appropriate solution to answer to questions about the past by construction of replica and copies<sup>33</sup>. The decisive advantage is that it doesn’t close off future interpretations because it is not *in situ*. Reconstitutions made by experimental archaeology are not definitive but let scientists understand how people lived. Indeed, it is now clear that the presentation of the past can never be done objectively, so experimental archaeology let us deal with the responsibility of presenting a specific and personal interpretation of the past to the public. It is a fine

<sup>28</sup> GAUTHIER Marc, « *Scénographies archéologiques* », Centre national de documentation pédagogique, <http://www.cndp.fr/revueTDC/887-69794.htm>

<sup>29</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>30</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

<sup>31</sup> GAUTHIER Marc, « *Scénographies archéologiques* », Centre national de documentation pédagogique, <http://www.cndp.fr/revueTDC/887-69794.htm>

<sup>32</sup> GAUTHIER Marc, « *Scénographies archéologiques* », Centre national de documentation pédagogique, <http://www.cndp.fr/revueTDC/887-69794.htm>

<sup>33</sup> COLES John, *Experimental archaeology*, Academic Press: London, 1979 (Introduction)



balance between instructing and entertaining<sup>34</sup> without damaging the original site and without misleading the public. It is both scientific and educational.

To sum up, in this paper I argued that Evans did his excavations of Knossos at the very beginning of the 20<sup>th</sup> century when techniques of archaeology were less developed; nevertheless, he was very cautious about details. However, he did very personal, irreversible and sometimes inaccurate reconstructions, which is problematic because it closes off further interpretations. That is why, nowadays, such *in situ* reconstructions are banned both because it damages the site, and because it can mislead visitors because of their powerful visual impact. Other ways of reconstituting the past are now preferred such as experimental archaeology.

To conclude, Evans' interpretations were accepted and followed for almost a century, without any alternative views, but it is now acknowledged that the construction of history is highly relative and subjective<sup>35</sup>. Thus, the site of Knossos, as we see it today, is the Knossos constructed by Evans. It is fictional and a historical<sup>36</sup>, since several periods are mixed in the reconstruction.

In fact, Knossos reconstructions mirror a broader debate: the heritage representations<sup>37</sup>. Restorations say as much about the present day as it does about the past because we use the past as a justification of our present political and social views. In presenting the past, we project our present ideas<sup>38</sup>. Therefore, the main issues are: how can an authentic past be constructed and how authentic are the vestiges presented to the public? According to Robin Collingwood, the real past can not be known; we just collect some segments of "known pasts"<sup>39</sup>.

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<sup>34</sup> BAHN Paul, *Archaeology, a very short introduction*, Oxford University Press: Oxford and New York, 1996, (Ch9: Presenting the past to the public)

<sup>35</sup> MACGILLIVRAY Joseph A., *Minotaur: Sir Arthur Evans and the Archaeology of the Minoan Myth*, New York: Hill and Wang, 2000

<sup>36</sup> HAMILAKIS Yannis, *Labyrinth revisited, rethinking Minoan Archaeology*, Oxbow books, 2002, (Ch3: Virtual discourse: Arthur Evans and the reconstructions of the Minoan palace at Knossos)

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<sup>38</sup> CAPLE Chris, *Conservation skills, judgement, methods and decision making*, Routledge : London and New York, 2000 (Chapter 9: Restoration)

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# Appendix 2

Source: ICOMOS,. (2015). The ICOMOS charter for the interpretation and presentation of cultural heritage sites. Retrieved 5 March 2015, from [http://www.international.icomos.org/charters/interpretation\\_e.pdf](http://www.international.icomos.org/charters/interpretation_e.pdf)

## The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites

Reviewed and revised under the Auspices of  
the ICOMOS International Scientific Committee  
on Interpretation and Presentation

Ratified by the 16th General Assembly of ICOMOS  
Quebec, Canada

4 October 2008

Preamble

Definitions

Objectives

Principles

### PREAMBLE

Since its establishment in 1965 as a worldwide organisation of heritage professionals dedicated to the study, documentation, and protection of cultural heritage sites, ICOMOS has striven to promote the conservation ethic in all its activities and to help enhance public appreciation of humanity’s material heritage in all its forms and diversity.

As noted in the Charter of Venice (1964) “It is essential that the principles guiding the preservation and restoration of ancient buildings should be agreed and be laid down on an international basis, with each country being responsible for applying the plan within the framework of its own culture and traditions.” Subsequent ICOMOS charters have taken up that mission, establishing professional guidelines for specific conservation challenges and encouraging effective communication about the importance of heritage conservation in every region of the world.

These earlier ICOMOS charters stress the importance of public communication as an essential part of the larger conservation process (variously describing it as “dissemination,” “popularization,” “presentation,” and “interpretation”). They implicitly acknowledge that every act of heritage conservation—within all the world’s cultural traditions - is by its nature a communicative act.

From the vast range of surviving material remains and intangible values of past communities and civilisations, the choice of what to preserve, how to preserve it, and how it is to be presented to the public are all elements of site interpretation. They represent every generation’s vision of what is significant, what is important, and why material remains from the past should be passed on to generations yet to come.

The need for a clear rationale, standardised terminology, and accepted professional principles for Interpretation and Presentation\* is evident. In recent years, the dramatic expansion of interpretive activities at many cultural heritage sites and the introduction of elaborate interpretive technologies and new economic strategies for the marketing and management of cultural heritage sites have created new complexities and aroused basic questions that are central to the goals of both conservation and the public appreciation of cultural heritage sites throughout the world:

\*See definitions on page 116



- What are the accepted and acceptable goals for the Interpretation and Presentation of cultural heritage sites?
- What principles should help determine which technical means and methods are appropriate in particular cultural and heritage contexts?
- What general ethical and professional considerations should help shape Interpretation and Presentation in light of its wide variety of specific forms and techniques?

The purpose of this Charter is therefore to define the basic principles of Interpretation and Presentation as essential components of heritage conservation efforts and as a means of enhancing public appreciation and understanding of cultural heritage sites\*

DEFINITIONS

For the purposes of the present Charter,

*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 programmes, community activities, and ongoing research, training, and evaluation of the interpretation process itself.

*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. It can be conveyed through a variety of technical means, including, yet not requiring, such elements as informational panels, museum-type displays, formalized walking tours, lectures and guided tours, and multimedia applications and websites.

*Interpretive infrastructure* refers to physical installations, facilities, and areas at, or connected with a cultural heritage site that may be specifically utilised for the purposes of interpretation and presentation including those supporting interpretation via new and existing technologies.

*Site interpreters* refers to staff or volunteers at a cultural heritage site who are permanently or temporarily engaged in the public communication of information relating to the values and significance of the site.

\*Although the principles and objectives of this Charter may equally apply to off-site interpretation, its main focus is interpretation and presentation at, or in the immediate vicinity of, cultural heritage sites

*Cultural Heritage Site* refers to a place, locality, natural landscape, settlement area, architectural complex, archaeological site, or standing structure that is recognized and often legally protected as a place of historical and cultural significance.

OBJECTIVES

In recognizing that interpretation and presentation are part of the overall process of cultural heritage conservation and management, this Charter seeks to establish seven cardinal principles, upon which Interpretation and Presentation—in whatever form or medium is deemed appropriate in specific circumstances—should be based.

- 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

Following from these seven principles, the objectives of this Charter are to:

1. **Facilitate understanding and appreciation** of cultural heritage sites and foster public awareness and engagement in the need for their protection and conservation.
2. **Communicate the meaning** of cultural heritage sites to a range of audiences through careful, documented recognition of significance, through accepted scientific and scholarly methods as well as from living cultural traditions.
3. **Safeguard the tangible and intangible values** of cultural heritage sites in their natural and cultural settings and social contexts.
4. **Respect the authenticity** of cultural heritage sites, by communicating the significance of their historic fabric and cultural values and protecting them from the adverse impact of intrusive interpretive infrastructure, visitor pressure, inaccurate or inappropriate interpretation.
5. **Contribute to the sustainable conservation** of cultural heritage sites, through promoting public

understanding of, and participation in, ongoing conservation efforts, ensuring long-term maintenance of the interpretive infrastructure and regular review of its interpretive contents.

6. **Encourage inclusiveness** in the interpretation of cultural heritage sites, by facilitating the involvement of stakeholders and associated communities in the development and implementation of interpretive programmes.

7. **Develop technical and professional guidelines** for heritage interpretation and presentation, including technologies, research, and training. Such guidelines must be appropriate and sustainable in their social contexts.

**PRINCIPLES**

**Principle 1: Access and Understanding**

*Interpretation and presentation programmes should facilitate physical and intellectual access by the public to cultural heritage sites.*

**1.1** Effective interpretation and presentation should enhance personal experience, increase public respect and understanding, and communicate the importance of the conservation of cultural heritage sites.

**1.2** Interpretation and presentation should encourage individuals and communities to reflect on their own perceptions of a site and assist them in establishing a meaningful connection to it. The aim should be to stimulate further interest, learning, experience, and exploration.

**1.3** Interpretation and presentation programmes should identify and assess their audiences demographically and culturally. Every effort should be made to communicate the site’s values and significance to its varied audiences.

**1.4** The diversity of language among visitors and associated communities connected with a heritage site should be taken into account in the interpretive infrastructure.

**1.5** Interpretation and presentation activities should also be physically accessible to the public, in all its variety.

**1.6** In cases where physical access to a cultural heritage site is restricted due to conservation concerns, cultural sensitivities, adaptive re-use, or safety issues, interpretation and presentation should be provided off-site.

**Principle 2: Information Sources**

*Interpretation and presentation should be based on evidence gathered through accepted scientific and scholarly methods as well as from living cultural traditions.*

**2.1** Interpretation should show the range of oral and written information, material remains, traditions, and meanings attributed to a site. The sources of this information should be documented, archived, and made accessible to the public.

**2.2** Interpretation should be based on a well researched, multidisciplinary study of the site and its surroundings. It should also acknowledge that meaningful interpretation necessarily includes reflection on alternative historical hypotheses, local traditions, and stories.

**2.3** At cultural heritage sites where traditional storytelling or memories of historical participants provide an important source of information about the significance of the site, interpretive programmes should incorporate these oral testimonies—either indirectly, through the facilities of the interpretive infrastructure, or directly, through the active participation of members of associated communities as on-site interpreters.

**2.4** Visual reconstructions, whether by artists, architects, or computer modelers, should be based upon detailed and systematic analysis of environmental, archaeological, architectural, and historical data, including analysis of written, oral and iconographic sources, and photography. The information sources on which such visual renderings are based should be clearly documented and alternative reconstructions based on the same evidence, when available, should be provided for comparison.

**2.5** Interpretation and presentation programmes and activities should also be documented and archived for future reference and reflection.



**Principle 3: Context and Setting**

*The Interpretation and Presentation of cultural heritage sites should relate to their wider social, cultural, historical, and natural contexts and settings.*

- 3.1** Interpretation should explore the significance of a site in its multi-faceted historical, political, spiritual, and artistic contexts. It should consider all aspects of the site’s cultural, social, and environmental significance and values.
- 3.2** The public interpretation of a cultural heritage site should clearly distinguish and date the successive phases and influences in its evolution. The contributions of all periods to the significance of a site should be respected.
- 3.3** Interpretation should also take into account all groups that have contributed to the historical and cultural significance of the site.
- 3.4** The surrounding landscape, natural environment, and geographical setting are integral parts of a site’s historical and cultural significance, and, as such, should be considered in its interpretation.
- 3.5** Intangible elements of a site’s heritage such as cultural and spiritual traditions, stories, music, dance, theater, literature, visual arts, local customs and culinary heritage should be considered in its interpretation.
- 3.6** The cross-cultural significance of heritage sites, as well as the range of perspectives about them based on scholarly research, ancient records, and living traditions, should be considered in the formulation of interpretive programmes.

**Principle 4: Authenticity**

*The Interpretation and presentation of cultural heritage sites must respect the basic tenets of authenticity in the spirit of the Nara Document (1994).*

- 4.1** Authenticity is a concern relevant to human communities as well as material remains. The design of a heritage interpretation programme should respect the traditional social functions of the site and the cultural practices and dignity of local residents and associated communities.

- 4.2** Interpretation and presentation should contribute to the conservation of the authenticity of a cultural heritage site by communicating its significance without adversely impacting its cultural values or irreversibly altering its fabric.

- 4.3** All visible interpretive infrastructures (such as kiosks, walking paths, and information panels) must be sensitive to the character, setting and the cultural and natural significance of the site, while remaining easily identifiable.

- 4.4** On-site concerts, dramatic performances, and other interpretive programmes must be carefully planned to protect the significance and physical surroundings of the site and minimise disturbance to the local residents.

**Principle 5: Sustainability**

*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.*

- 5.1** The development and implementation of interpretation and presentation programmes should be an integral part of the overall planning, budgeting, and management process of cultural heritage sites.
- 5.2** The potential effect of interpretive infrastructure and visitor numbers on the cultural value, physical characteristics, integrity, and natural environment of the site must be fully considered in heritage impact assessment studies.
- 5.3** Interpretation and presentation should serve a wide range of conservation, educational and cultural objectives. The success of an interpretive programme should not be evaluated solely on the basis of visitor attendance figures or revenue.
- 5.4** Interpretation and presentation should be an integral part of the conservation process, enhancing the public’s awareness of specific conservation problems encountered at the site and explaining the efforts being taken to protect the site’s physical integrity and authenticity.
- 5.5** Any technical or technological elements selected to become a permanent part of a site’s interpretive infrastructure should be designed and constructed in a manner that will ensure effective and regular maintenance.

**5.6** Interpretive programmes should aim to provide equitable and sustainable economic, social, and cultural benefits to all stakeholders through education, training and employment opportunities in site interpretation programmes.

**Principle 6: Inclusiveness**

*The Interpretation and Presentation of cultural heritage sites must be the result of meaningful collaboration between heritage professionals, host and associated communities, and other stakeholders.*

**6.1** The multidisciplinary expertise of scholars, community members, conservation experts, governmental authorities, site managers and interpreters, tourism operators, and other professionals should be integrated in the formulation of interpretation and presentation programmes.

**6.2** The traditional rights, responsibilities, and interests of property owners and host and associated communities should be noted and respected in the planning of site interpretation and presentation programmes.

**6.3** Plans for expansion or revision of interpretation and presentation programmes should be open for public comment and involvement. It is the right and responsibility of all to make their opinions and perspectives known.

**6.4** Because the question of intellectual property and traditional cultural rights is especially relevant to the interpretation process and its expression in various communication media (such as on-site multimedia presentations, digital media, and printed materials), legal ownership and right to use images, texts, and other interpretive materials should be discussed, clarified, and agreed in the planning process.

**Principle 7: Research, Training, and Evaluation**

*Continuing research, training, and evaluation are essential components of the interpretation of a cultural heritage site.*

**7.1** The interpretation of a cultural heritage site should not be considered to be completed with the completion of a specific interpretive infrastructure. Continuing research and consultation are important to furthering the understanding and appreciation of a site’s significance. Regular review should be an integral element in every heritage interpretation programme.

**7.2** The interpretive programme and infrastructure should be designed and constructed in a way that facilitates ongoing content revision and/or expansion.

**7.3** Interpretation and presentation programmes and their physical impact on a site should be continuously monitored and evaluated, and periodic changes made on the basis of both scientific and scholarly analysis and public feedback. Visitors and members of associated communities as well as heritage professionals should be involved in this evaluation process.

**7.4** Every interpretation programme should be considered as an educational resource for people of all ages. Its design should take into account its possible uses in school curricula, informal and lifelong learning programmes, communications and information media, special activities, events, and seasonal volunteer involvement.

**7.5** The training of qualified professionals in the specialised fields of heritage interpretation and presentation, such as content creation, management, technology, guiding, and education, is a crucial objective. In addition, basic academic conservation programmes should include a component on interpretation and presentation in their courses of study.

**7.6** On-site training programmes and courses should be developed with the objective of updating and informing heritage and interpretation staff of all levels and associated and host communities of recent developments and innovations in the field.

**7.7** International cooperation and sharing of experience are essential to developing and maintaining standards in interpretation methods and technologies. To that end, international conferences, workshops and exchanges of professional staff as well as national and regional meetings should be encouraged. These will provide an opportunity for the regular sharing of information about the diversity of interpretive approaches and experiences in various regions and cultures.



Mycenae and Tiryns (Greece)

No 941

Identification

Nomination	The Archaeological Sites of Mycenae and Tiryns
Location	Region of the Peloponnese, Province of Argolid
State Party	Greece
Date	1 July 1998

Justification by State Party

[Note by ICOMOS Although the two sites form a single nomination, separate dossiers have been supplied by the State Party. The justifications for each are given below, preceded by a section relating to the joint nomination, in which no proposals are given for criteria.]

It is proposed that the archaeological sites of Mycenae and Tiryns be included on the World Heritage List as a unity which represents the most characteristic examples of Mycenaean citadels. Both Mycenae and Tiryns represent masterpieces of human creative genius. They have similarities and differences, and constitute a continuous entity since they complement one another.

Mycenae

The site of Mycenae represents a masterpiece of human creative genius as it shelters outstanding works of monumental architecture and sculpture that are unique in the world: the massive citadel walls with the Lion Gate and the relief of the Lions, the Treasury of Atreus, Grave Circle A, and the underground reservoir.

Criterion i

Mycenae, the most famous centre of the Mycenaean world, has been described by Homer in his legendary epic poem, the *Iliad*, bequeathing the spirit of the Mycenaean civilization from antiquity to the world of today. Since Homer’s time, a continuous interchange of human values within an increasingly worldwide cultural area has exerted a significant influence on the evolution of civilizations.

The religion, the writing, and the architecture of the Greeks in classical times have fundamental roots in the Mycenaean culture. Furthermore, the *megaron* anticipates the plan adopted for the Greek temples, whilst the relief of the Lions is the first example of a monumental sculpture that was to have a great future.

Criterion ii

Mycenae is not only the main archaeological site of the Mycenaean civilization which flourished in the Aegean and spread around the Mediterranean between 1600 and 1100 BC, but it also represents an exceptional testimony to the achievements of this civilization in art and technology as well as in the advanced level of economy and social organization achieved at the time.

Significant stages in monumental architecture were achieved with the construction of the massive defensive walls of Mycenae and the beehive-shaped *tholos* tombs. Outstanding artefacts (metal objects, gems) were found in the tombs of Grave Circles A and B.

The site of Mycenae also displays some characteristic elements of the unique Mycenaean economic and social

organization, with its elaborate exchange network, based on centres ruled by a *wanax* around whom everything revolves - palace, workshops, store-rooms, and cult centre. It also includes the unique Access Ramp, built to enhance the power of the Palace and Grave Circle A, built for ancestor worship.

Criteria iii and iv

With the discovery of Mycenae by Heinrich Schliemann in 1876, the legendary centre of Homer and the home of Agamemnon, one of the most popular heroes of the Homeric epics, became history. Its legendary rulers, the Atreides, were considered by the Greeks of antiquity as their ancestors. They also inspired many artistic and literary works of outstanding significance through the centuries in different parts of the world.

Criterion vi

Tiryns

Tiryns represents a major stage in the earth’s history, since it dates from the Mycenaean civilization, the first palace civilization with urban characteristics and a centralized administrative system in Europe.

Its architecture represents a masterpiece of human creative genius. The walls can be described as a creation that goes beyond the limits of the human mind, as shown by the use of the word “cyclopean” attributed to them in the Homeric poems, derived from the Cyclopes, legendary giants from Lycia, who were thought to have been their builders. The architectural ensemble of the cyclopean walls and the palace complex is an outstanding testimony to the most important prehistoric period of the Greek civilization.

Criterion i

The Mycenaean palace administrative system with its centralized structure operated for five centuries. At the peak period of prosperity (1300-1200 BC) the Mycenaean areas had a homogenous society known as the Mycenaean *Koine*. This wide homogeneity is evident in religion, language, and art. In addition, the idea of a common ethnic consciousness reached its apogee.

Criterion ii

The city outside the citadel of Tiryns was very extensive

and fully organized. The palace administrative system controlled agricultural production, stock-raising, and system, which evolved in Mycenaean times, bears exceptional testimony to an early stage of Greek civilization.

Criterion iii

The Mycenaean citadels are unique examples of fortification. The cyclopean walls enclose public buildings, workshops, store-rooms, and cult centres. The realization of this massive construction work demanded precise architectural planning and supervision by highly qualified architects. The architecture of the fortified citadels, which have been well preserved up to the present day, represents an outstanding example of a unique form of architectural expression.

Criterion iv

The Mycenaean civilization is a highlight of human history. The strongly centralized administrative system, the monumental architecture, the art objects, and the earliest indications of the Greek language preserved on the Linear B tablets inspired Homer, who described the impressive Mycenaean world in his poems, especially the *Odyssey*. The spirit of the Mycenaean civilization has survived to the present day through the Homeric epics, which were orally transferred and taught in schools up to the end of the classical world. The Homeric tradition led Schliemann to search for and to reveal the most important centres of this civilization. Thousands of visitors influenced by this written tradition continue to visit Mycenae and Tiryns in search of the traces of the legendary kingdoms of Agamemnon and Proitos. Overall, the Mycenaean civilization, and especially the two important centres of Mycenae and Tiryns, have outstanding universal significance as highlights of human civilization.

Criterion vi

Category of property

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, Mycenae and Tiryns are *sites*.



## History and Description

### History

The Mycenaean civilization developed on the Greek mainland in the Late Bronze Age (16th century BC). It was essentially a continuation of the Middle Helladic culture, transformed by Minoan influences from Crete.

Knowledge of its two earlier periods I (c 1580-1500 BC) and II (c 1500-1400 BC) comes mainly from burials, notably the shaft graves at Mycenae. Towards the end of Period II more elaborate tomb types developed - large chamber tombs for families and beehive-shaped (*tholos*) tombs for royalty.

The apogee of the Mycenaean civilization came in Period III (c 1400-1120 BC), when strong citadels and elaborate palaces were built. Towards the end of this period a script, known as Linear B, came into use; the language used has been shown to be an early form of Greek, confirming that the Mycenaean were Greek speakers of Indo-European origin.

The political structure was that of an autocratic monarchy, the ruler of which was known as the *wanax*, who administered his territory by means of an hierarchical structure of officials. There was a special class of priests and priestesses. The people were organized in an elaborate class system, and slavery was widely practised.

The site of *Mycenae* is known from excavations to have been occupied from the Neolithic period (c 4000 BC). During the Middle Helladic Period a cemetery was established on the southern slopes of the natural hill which included Grave Circle B (dated to the 17th century BC) and Grave Circle A (16th century BC). The Palace was constructed on the summit of the hill and surrounded by massive cyclopean walls in three stages (c 1350, 1250, and 1225 BC respectively). In the final stage the underground reservoir was also fortified.

A series of *tholos* tombs were built on the southern and south-western slopes of the hill during the Mycenaean

Period - the so-called Tomb of Aegisthos (c 1500 BC), the Lion Tholos Tomb (c 1350 BC), the Tomb of Clytemnestra (c 1220 BC), culminating in the Treasury of Atreus, at some distance from the others. Four large buildings, believed to have been royal workshops, were built in the 13th century BC in the vicinity of Grave Circle B.

The Palace was abandoned at the end of the 12th century BC and a number of buildings were damaged by fire. However, the site continued to be occupied until 498 BC, when it was conquered by Argos and its inhabitants were expelled. The top of the hill was levelled at this time for the construction of an Archaic temple. The site was re-occupied briefly in the Hellenistic period, when another temple was built and a theatre constructed over the Tomb of Clytemnestra. By the time the Greek traveller Pausanias visited Mycenae in the 2nd century AD it had been completely abandoned for many years.

As at Mycenae, the earliest human occupation known at *Tiryns* is from the Neolithic period. The oldest architectural remains, on the Upper Citadel, are from the early Bronze Age (c 3000 BC). The level of this area was built up in the Middle Bronze Age (1900-1600 BC) to accommodate new buildings.

Tiryns flourished during the Mycenaean period. A new fortified palace complex was constructed in the 14th century BC. The defences were extended in the early 13th century BC, and the Lower Citadel was also fortified. Following earthquake and fire damage, the site was reconstructed, the new defences enclosing an area of 20ha; the extra-mural settlement covered more than 25ha.

The fate of Tiryns with the decline of the Mycenaean civilization paralleled that of Mycenae. It was not finally abandoned until the deportation of the 5th century BC, by which time it had lost its power and influence.

### Description - Mycenae

The site is located on a small hill on the lower slopes of Mount Euboea, at the crossing of the road from the Argolid Gulf to Corinth and Athens.

The area of the *Citadel* or *Acropolis* is surrounded by massive walls 6-8m thick, which probably originally stood to a height of 18m. Three stages of construction can be identified, the first two from the Mycenaean period using massive blocks of limestone, first undressed, latter hammer-dressed) and the third Hellenistic (dressed small blocks).

The walls are pierced by two gates. The *Lion Gate* is made from four large blocks, a lintel, and two side posts; the relieving triangle over the lintel is a block of limestone with the famous Relief of the Lions. The *North Gate* is a slightly smaller version of the Lion Gate, with a plain relieving triangle.

The *Granary*, built up against the inner side of the wall, was a brick two-storeyed structure.

Following the line of the Lion Gate is the *Great Ramp*, a steep massive construction in cyclopean stone blocks flanked by low walls which leads to the top of the hill and the Palace.

The *Palace*, covering c 170m by 50-80m, is built at several levels on an area of levelled ground revetted by cyclopean walls. Its present form is that of the late Mycenaean period. Features include the rectangular *Propylon*, consisting of two monostyle porticoes, the *Main Court*, and the *Megaron*, the main palace building, which was a complex of rooms, porticoes, stairways, and corridors built on several levels created by terracing.

The *Underground Reservoir* was constructed in the 12th century BC in a deep cutting in the rock. A staircase leads down to a cyclopean portal and thence to the cistern proper, the walls of which are clad in hydraulic cement.

The area on the south-east of the Acropolis is known as

the *Cult Centre*, since the buildings excavated there produced numerous altars, shrines, and frescoes depicting religious rituals.

*Grave Circle A* was created in the 16th century BC, when a low circular wall was built round a group of large royal shaft tombs (as well as a number of lesser tombs, destroyed by Schliemann's excavations). The tombs originally had low rubble walls supporting the horizontal beams of the slate or reed roofs. In the 13th century BC larger walls were built to bring the cemetery up to the level of the entrance to the citadel.

A group of 13th century BC *buildings*, the purpose of which is not known, lie outside the walls. Also outside the defences is *Grave Circle B*, which contained fourteen royal shaft graves and some smaller ones. Like Grave Circle A, it was enclosed by a low wall.

The *Tomb of Aegisthos* (all such attributions to historical characters are fanciful and not supported by evidence) has a long narrow *dromos* (entrance) leading to a *tholos* (beehive-shaped chamber), the upper part of which has collapsed. It is the oldest of this group (c 1500 BC). The slightly later *Tomb of the Lions* is comparable in form and size, as is the 13th century *Tomb of Clytemnestra*.

The most splendid monumental structure at Mycenae is the *Treasury of Atreus* (also known as the *Tomb of Agamemnon*). Built around 1250 BC, it was cut into the hillside. The *dromos* and *tholos* are lined with carefully cut blocks. It has a monumental facade 10.50m high, originally elaborately decorated, with a doorway in the middle. The *tholos* is 14.60m in diameter and 13.50m high.

### Description - Tiryns

Tiryns is situated 20km north-east of Mycenae on an isolated rocky hill that rises 26m above the fertile Argolid plain. Its strategic position commands the roads to Argos, Mycenae, Nauplion, and Epidauros.

The cyclopean *walls*, built of stones even larger than those of Mycenae, are in places up to 8m thick and 13m



high. They enclose an area of c 20ha. The entrance, on the eastern side, is approached by a large ramp. The *outer gate*, which is similar in size to the Lion Gate at Mycenae, opens out into the space between the outer and inner walls through a second gate.

To the north there is an open defended area, thought to have served as a place of refuge in troubled times for the population of the surrounding area. Concealed stairways give access to underground *springs*, as at Mycenae.

The main part of the *Upper Citadel* is reached through a forecourt, with a colonnade on one side, and the *Great Propylon*, consisting of two porches with columns. The colonnade is in front of a series of galleries (there are others to the south) built in a remarkable style, with walls corbelled inwards and terminating in an acute angle at the top.

Next comes the *Outer Palace Courtyard*, which leads in turn through another defended gateway (a smaller version of the Great Propylon) into the *Central Courtyard*. Opening out of this colonnaded open space, with an altar in its centre, is the *Megaron*, the walls of which must have been lavishly decorated, to judge from surviving fragments. Other parts of the Palace cluster around the courtyard; of especial interest is the *Bathroom*, the floor of which is a single limestone slab weighing more than 20t.

The entire complex opens out to the west, the direction of the sea. This was accessible by means of an impressive flight of steps approached through a small postern gate.

## Management and Protection

### *Legal status*

Both sites are protected under the provisions of the 1932 Greek Antiquities Law No 5351, as amended in 1981 (Laws Nos 1126 and 1127), which declares all cultural property to be the property of the State. Permits

are required from the competent authority for any form of intervention on protected sites.

The boundaries of the archaeological site of Mycenae and its buffer zone were established by Ministerial Decree No 2160 of 1964. Protection extends to the Citadel (Acropolis), the areas outside the walls, and the wider surrounding area, including the natural environment of the site. Those for Tiryns are covered by Decrees 241 of 1956 and 379 of 1991.

### *Management*

Both sites are the property of the Greek State. The protected area (buffer zone) around Mycenae has either been expropriated by the State or belongs to the Municipality of Mycenae or private individuals. In the latter case, there are strict controls over the use of the land. Similar considerations apply at Tiryns.

Overall management is vested in the Ministry of Culture and delegated to the Directorate of Prehistoric and Classical Antiquities. Direct management (including maintenance, administration, investigation, restoration, and conservation) of the sites is the responsibility of the 4th Ephorate of Prehistoric and Classical Antiquities, based in Nauplion.

Each site has its own curator, who is an archaeologist from the 4th Ephorate. Daily site inspections are carried out by the curators and their site guards (ten at Tiryns and twelve at Mycenae). Professional and technical backup services are provided by the 4th Ephorate in Nauplion, which is close to both sites.

### - Mycenae

The Programme for the Restoration and Conservation of Mycenae, which began in 1997, has been combined since March 1998 with the that of the Work Team for the Conservation of the Monuments of the Asclepion of Epidauros. Restoration work has been completed on a number of sections of the site. A five-year extension of the programme will include a study of the environment and architectural documentation. Financing for this

Programme is assured from the Ministry of Culture, the Credits for the Execution of Archaeological Works Distribution Fund, and the EU Delors II credits.

A detailed 1½-year Master Plan has been developed, important aspects of which include the creation of a new entrance system and an extensive network of paths leading to platforms for viewing the site. Information signs in Greek and English, hitherto completely lacking, are being installed. Work has been completed on the new Site Museum, which will house interpretative material and finds from the site, as well as storage and laboratory facilities. Its siting near the North Gate will help to reduce visitor pressure on the Lion Gate.

Current visitor numbers are 500,000-700,000 annually. A new and much larger parking area, with a shuttle service to the site, is to be constructed in the nearby modern town.

### - Tiryns

A programme of restoration and conservation has been in progress under the direction of the 4th Ephorate for several years, concentrating on restoration of the walls and the area around the Acropolis. These had been in a poor state of repair for some years, as a result of which access to the site was restricted.

A detailed study of future requirements in the Acropolis itself has been carried out by the German Archaeological Institute and is currently being implemented.

A further programme relates to the visitor management and facilities on the site. It covers the creation of pathways, increased parking, installation of restaurant and other facilities, and the rehabilitation of an old building on the site as an information centre.

Current visitor numbers are 20,000-50,000 annually.

## Conservation and Authenticity

### *Conservation history*

Mycenae was excavated by Heinrich Schliemann in 1874-76. Subsequently, a number of limited excavations have been carried out by Greek and British archaeologists. During recent years a topographical survey has been carried out on the buildings (by the British School of Archaeology in Athens), two aerial surveys have been made of the entire site and its surroundings, and the entire Acropolis and the structures outside the walls have been recorded.

Schliemann also excavated at Tiryns (in 1884), and his work was carried on by his assistant, Wilhelm Dörpfeld. Latterly, more intensive work has been carried out on the Acropolis by the German Institute of Archaeology. The most recent architectural and topographical survey took place in 1980.

Considerable restoration and conservation work has been carried out at Mycenae, but this has only begun recently at Tiryns, where there have been serious problems associated with the stability of the walls.

All work at the two sites has been carried out in conformity with strict Greek practice. Only at Tiryns have interventions been more drastic, but these were occasioned by the need to stabilize the walls, which were dangerous in places.

### *Authenticity*

The authenticity of both sites is very high. Neither site has been subject to interventions of any kind since they were forcibly evacuated in the 5th century BC. Indeed, both were lost until rediscovered in the 19th century.

## Evaluation

### *Action by ICOMOS*

An ICOMOS expert mission visited Mycenae and Tiryns in 1999.

### *Qualities*

The Mycenaean civilization marked a major step forward in European cultural development. The two great archaeological sites of Mycenae and Tiryns together demonstrate the spirit and the achievements of that civilization more than three millennia ago.

### *Comparative analysis*

The role of the Mycenaean civilization in the evolution of European culture is unique in its significance and influence. Mycenae and Tiryns are the most outstanding sites of that culture, and complement one another in the material evidence that they provide of the Mycenaean civilization. For these reasons, therefore, it is impossible to look for comparative sites.

### *ICOMOS recommendations for future action*

For *Mycenae* it is important that the new management plan should be implemented with the minimum delay. This plan should be complemented by a plan for regular inspection and maintenance. It would be desirable if greater attention could be given in presentation to the post-Mycenaean levels on the site.

At *Tiryns*, as at Mycenae, it is recommended that the well formulated management plan should be complemented by a regular inspection and maintenance plan.

The area of ancient Tiryns proposed for inscription on the World Heritage List is restricted to that in State ownership. Whilst that part in private ownership is protected by law, ICOMOS feels that it would be more logical if the entire area of the ancient city could be included in the nominated area.

ICOMOS does not wish to make the implementation of these recommendations a condition of inscription, since the cultural importance of the two sites is undeniable and they are currently well managed. So far as the extension of the site proposed for inscription at Tiryns

is concerned, it is recognized that this may well present legal problems that will require considerable time for negotiation. The State Party is encouraged to initiate this process straight away, with the objective of proposing an extension at some time in the future.

### **Brief description**

Mycenae and Tiryns are the imposing ruins of the two greatest cities of the Mycenaean civilization which dominated the eastern Mediterranean world in the 15th to 12th centuries BC and which played a vital role in the development of the culture of classical Greece.

### **Recommendation**

That these properties be inscribed, as a single site, on the World Heritage List on the basis of ***criteria i, ii, iii, iv, and vi:***

***Criterion i*** The architecture and design of Mycenae and Tiryns, such as the Lion Gate and the Treasury of Atreus at Mycenae and the walls of Tiryns, are outstanding examples of human creative genius.

***Criterion ii*** The Mycenaean civilization, as exemplified by Mycenae and Tiryns, had a profound effect on the development of classical Greek architecture and urban design, and consequently also on contemporary cultural forms.

***Criteria iii and iv*** Mycenae and Tiryns represent the apogee of the Mycenaean civilization, which laid the foundations for the evolution of later European cultures.

***Criterion vi*** Mycenae and Tiryns are indissolubly linked with the Homeric epics, the *Iliad* and the *Odyssey*, the influence of which upon European literature and the arts has been profound for more than three millennia.



## Appendix 4

Centre, U. (2014). Rapa Nui National Park - UNESCO World Heritage Centre. Whc. unesco.org. Retrieved 14 December 2014, from <http://whc.unesco.org/en/list/715>

# Rapa Nui National Park

### Chile

Easter Island province of the Valparaíso Region

S27 8 60 W109 27 0

**Date of Inscription:** 1995

**Criteria:** (i)(iii)(v)

**Property :** 6,666 ha

**Ref:** 715

Rapa Nui, the indigenous name of Easter Island, bears witness to a unique cultural phenomenon. A society of Polynesian origin that settled there c. A.D. 300 established a powerful, imaginative and original tradition of monumental sculpture and architecture, free from any external influence. From the 10th to the 16th century this society built shrines and erected enormous stone figures known as moai , which created an unrivalled cultural landscape that continues to fascinate people throughout the world.

## Outstanding Universal Value

### Brief Synthesis

Rapa Nui National Park is a protected Chilean wildlife area located in Easter Island, which concentrates the legacy of the Rapa Nui culture. This culture displayed extraordinary characteristics that are expressed in singular architecture and sculpture within the Polynesian context. Easter Island, the most remote inhabited island on the planet, is 3,700 kilometres from the coast of continental Chile and has an area of 16,628 hectares while the World Heritage property occupies an area of approximately seven thousand hectares, including four nearby islets.

The island was colonized toward the end of the first millennium of the Christian era by a small group of settlers from Eastern Polynesia, whose culture manifested itself between the eleventh

and seventeenth centuries in great works such as the ahu –ceremonial platforms- and carved moai - colossal statues- representing ancestors. Rapa Nui National Park most prominent attributes are the archaeological sites. It is estimated that there are about 900 statues, more than 300 ceremonial platforms and thousands of structures related to agriculture, funeral rites, housing and production, and other types of activities. Prominent among the archaeological pieces are the moai that range in height from 2 m to 20 m and are for the most part carved from the yellow–brown lava tuff, using simple picks (toki) made from hard basalt and then lowered down the slopes into previously dug holes. There are many kinds of them and of different sizes: those in the process of being carved, those in the process of being moved to their final destinations –the ahu-, those being torn down and erected. The quarries (Rano Raraku and others) are invaluable evidence of the process of their carving. The ahu vary considerably in size and form; the most colossal is the Ahu Tongariki, with its 15 moai. There are certain constant features, notably a raised rectangular platform of large worked stones filled with rubble, a ramp often paved with rounded beach pebbles, and levelled area in front of the platform. Also extremely valuable are the rock art sites (pictographs and petroglyphs), which include a large variety of styles, techniques and motifs. Other archaeological sites are the caves, which also contain rock art. There is also a village of ceremonial nature named Orongo which stands out because of its location and architecture. While it has not attracted as much attention, the housing and productive structures are of extreme interest.

According to some studies, the depletion of natural resources had brought about an ecological crisis and the decline of the ancient Rapa Nui society by the 16th century, which led to decline and to the spiritual transformation in which these megalithic monuments were destroyed. The original cult of the ancestor was replaced by the cult of the man-bird, which has as exceptional testimony the ceremonial village of Orongo, located at the Rano Kau volcano. Fifty-four semi-subterranean stone-houses of elliptical floor plans complement this sacred place, profusely decorated with petroglyphs alluding to both the man-bird and fertility. This cult would see its end in the middle of the nineteenth century.

Colonization, the introduction of livestock, the confinement of the original inhabitants to

smaller areas, the dramatic effect of foreign diseases and, above all, slavery, reduced the population of Rapa Nui to little more than a hundred. Currently, the island is inhabited by descendants of the ancient Rapa Nui as well as immigrants from diverse backgrounds, accounting for a significant mixed population.

**Critère (i) :** Le parc national de Rapa Nui présente l’un des plus remarquables phénomènes culturels au monde. Une tradition artistique et culturelle d’une grande puissance et dotée d’une grande imagination a été développée par une société totalement isolée des influences culturelles extérieures de toute sorte sur une période de plus de mille ans.

**Criterion (iii):** Rapa Nui, the indigenous name of Easter Island, bears witness to a unique cultural phenomenon. A society of Polynesian origin that settled there c. A.D. 300 established a powerful, imaginative and original tradition of monumental sculpture and architecture, free from any external influence. From the 10th to the 16th century this society built shrines and erected enormous stone figures known as moai, which created an unrivalled landscape that continues to fascinate people throughout the world.

**Criterion (v):**Rapa Nui National Park is a testimony to the undeniably unique character of a culture that suffered a debacle as a result of an ecological crisis followed by the irruption from the outside world. The substantial remains of this culture blend with their natural surroundings to create an unparalleled cultural landscape.

**Integrity**

The Rapa Nui National Park covers approximately 40% of the island and incorporates an ensemble of sites that is highly representative of the totality of the archaeological sites and of the most outstanding manifestations of their numerous typologies. The integrity of the archaeological sites has been preserved, but the conservation of materials is a matter of great concern and scientific research. The management and conservation efforts, still insufficient, focus on addressing anthropic factors and the effects of weathering, both on the material -volcanic lava and tuff- and on the stability of structures. Progress has been made in the closure of areas, monitoring and the layout of roads so as to maintain the visual integrity of the landscape.

An increase has been observed in cattle that wander illegally inside the Park limits. In terms of invasive vegetation, certain species have proliferated and have had an impact on the landscape. At the same time, they have adversely affected the structural stability which is being addressed through the management of the sites.

**Authenticity**

The Rapa Nui National Park continues to exhibit a high degree of authenticity because there has been little intervention since virtual abandonment of the area in the later 19th century. A number of restorations and reconstructions of ahu have been made on the basis of strictly controlled scientific investigations, and there has been some re-erection of fallen moai, with replacement of the red stone headdresses, but these do not go beyond the permissible limits of anastylosis.

Authenticity is being maintained and conservation interventions are consistent with the Outstanding Universal Value of the property, with prevailing sense of respect for the historical transformation of the Rapa Nui culture, which, in a context of deep crisis, toppled the moai. In this respect, it is important to consider that the Rapa Nui National Park must provide an account of the various stages of the Rapa Nui civilization, not excluding that of its crisis.

**Protection and management requirements**

The Rapa Nui National Park has two official protections. On one hand, since 1935 it has been a national park, administered by the National Forest Service of Chile (CONAF). On the other hand, the entire island was declared a National Monument in 1935 and the same was done with the islets adjacent to Easter Island in 1976. The property enjoys a solid legal and institutional framework for protection and management. There are two institutions responsible for this activity that coordinate with each other (National Monuments Council and CONAF) and with the community for conservation and management. There is a museum, the R. P. Sebastian Englert Museum of Anthropology, which supports research and conservation efforts. A management plan is in place which undergoes periodic review and there is a team in charge of Park administration. Nevertheless, site management becomes complex because of cultural



differences and the reluctances from part of some sectors of the local community about State intervention.

Visitor management is a great imperative, with challenges in establishing carrying capacity and providing infrastructure of basic services and interpretation. Also, it is necessary that the local population effectively support the conservation effort, for example, through livestock control.

A better dialogue is necessary among researchers to reach conclusions on the available knowledge and to manage it in a functional manner conducive to conservation; to systematize the information produced and generate a periodic, comprehensive and sustainable monitoring system. Additional staff and resources are needed for the administration and care of the site, to reinforce the number and training of the park rangers team, and to increase the operating budget. There is a constant pressure on park lands; the State must prevent its illegal occupation.

The essential requirement for the protection and management of this property lies in its multifaceted status as a World Heritage site, as a reference point and basis for the development of the population of the island, and repository of answers to fundamental questions that are far from being revealed.

## Long Description

Rapa Nui contains one of the most remarkable cultural phenomena in the world. An artistic and architectural tradition of great power and imagination was developed by a society completely isolated from external cultural influences of any kind for over a millennium. The substantial remains of this culture blend with their natural surroundings to create an unparalleled cultural landscape.

The island was settled around AD 300 by Polynesians, probably from the Marquesas, who brought with them a wholly Stone Age society. All the cultural elements in Rapa Nui before the arrival of Europeans indicate that there were no other incoming groups. Between the 10th and 16th centuries the island community expanded steadily, settlements being set up along

practically the entire coastline. The high cultural level of this society is best known from its monumental stone figures (moai ) and ceremonial shrines (ahu ); it is also noteworthy for a form of pictographic writing (rongo rongo ), so far undeciphered.

However, there was an economic and social crisis in the community in the 16th century, attributable to over-population and environmental deterioration. This resulted in the population being divided into two separate groups of clans who were constantly involved in warfare. The warrior class that evolved from this situation gave rise to the so-called Birdman cult, based on the small islands offshore of Orongo, which superseded the statue-building religion and threw down most and slighted most of the moai and ahu.

On Easter Sunday 1722 Jacob Roggveen of the Dutch East India Company chanced upon the island and gave it its European name. It was annexed to Chile in 1888.

The most famous archaeological features of Rapa Nui are the moai, which are believed to represent sacred ancestors who watch over the villages and ceremonial areas. They range in height from 2 m to 20 m and are for the most part carved from the scoria, using simple picks (toli ) made from hard basalt and then lowered down the slopes into previously dug holes.

A number of moai are still in an uncompleted condition in the quarries, providing valuable information about the method of manufacture. Some have large cylindrical pieces of red stone known as pukao, extracted from the small volcano Punapao, as headdresses: these are believed to denote special ritual status. There is a clear stylistic evolution in the form and size of the moai, from the earlier small, round-headed and round-eyed figures to the best-known large, elongated figures with carefully carved fingers, nostrils, long ears, and other features.

The shrines (ahu) vary considerably in size and form. There are certain constant features, notably a raised rectangular platform of large worked stones filled with rubble, a ramp often paved with rounded beach pebbles, and levelled area in front of the platform. Some have moai on them, and there are tombs in a number of them in which skeletal remains have been discovered. The ahu are generally located on the coast and oriented parallel to it.

The Orongo ceremonial village, which was probably the centre of a complex of religious practices related to the Birdman cult, consists of over fifty semi-subterranean stone-houses built in contiguous groups, located on the rim of the Ran Kay crater below a towering cliff. There are abundant remains of the stone houses (hare) built by the earlier inhabitants of the island. The houses were raised on basalt foundation and form the nucleus for associated structures such as ovens or hearths, farm buildings and stone chicken houses. House groups sited near the coast are sometimes associated with round stone towers.

The nature of the geology of the island is such that there are many caves (ana) around the coast of the island, and these were used in the past by the islanders as temporary or permanent dwellings, being converted by the erection of stone walls at their mouths. A number of these contain wall paintings of deities, birds and fertility symbols.

Source: UNESCO/CLT/WHC

## Historical Description

Rapa Nui was settled around AD 300 by Polynesians, probably from the Marquesas, who brought with them a wholly Stone Age society. All the cultural elements in Rapa Nui prior to the arrival of Europeans indicate that there were no other incoming groups; they rule out the many hypotheses that have been advanced regarding settlement from South America, Melanesia, Egypt, or elsewhere. According to island tradition, the colonizing expedition of fifty people in two canoes was led by King Hotu Matu'a.

Between the 10th and 16th centuries the island community expanded steadily, small settlements being set up along practically the entire coastline. The high cultural level of this society was high, and is best known from its monumental stone figures that evolved from this Situation gave rise to the so-called "Birdman" cult, based on the small islands Offshore of Orongo, which superseded the statue-building religion and was instrumental in most of the moai and ahu being thrown down and slighted.

On Easter Sunday 1722 Jacob Roggeveen of the Dutch East India Company chanced upon the

island, and gave it its European name. The Spanish, led by Captain Don Felipe Gonzalez, claimed the island in 1770, naming it San Carlos in honour of Carlos III. The celebrated English explorer, Captain James Cook, was there briefly in 1774, and his great French contemporary, the Comte de la Perouse, in 1786. Whalers began to call at the island in the early 19th century, bringing with them venereal disease, which ravaged the population. However, the most devastating impact on the island's society and culture came in the 1860s, when Peruvian slavers carried off some two thousand islanders, including the king and the priests, in 1862. As a result of public protests, about a hundred of them were put on a ship to be taken back to the island in 1865.

However, smallpox broke out on board and only fifteen islanders survived to return to Rapa Nui, bringing with them the disease which led to an epidemic that nearly wiped out the remaining islanders: by 1877 only 111 inhabitants remained out of the estimated population of around 10,000 When Europeans first arrived. The island was annexed by Chile in 1888 in the belief that it had strategic and economic potential, but the mainland farmers who settled there found that agriculture was not profitable. A sheep ranch was moderately successful, but the lease of the company running this operation was revoked in 1952 and the Chilean Navy took control of the island. In the 1960's civil administration was resumed, Easter Island being given the status of a department within the province of Valparaiso. The population is now around two thousand people, about one third of them from Chile and the remainder descendants of the original Polynesian settlers.

Source: Advisory Body Evaluation



Appendix 5

Centre, U. (2014). Minoan Palatial Centres (Knossos, Phaistos, Malia, Zakros, Kydonia) - UNESCO World Heritage Centre. Whc.unesco.org. Retrieved 14 December 2014, from <http://whc.unesco.org/en/tentativelists/5860/>

Minoan Palatial Centres (Knossos, Phaistos, Malia, Zakros, Kydonia)

Greece  
**Date of Submission:** 16/01/2014  
**Criteria:** (ii)(iii)(vi)  
**Category:** Cultural  
**Submitted by:**  
Permanent Delegation of Greece to UNESCO  
**State, Province or Region:**  
Region of Crete, Regional Units of Heraklion, Lasithi and Chania  
**Ref.:** 5860

Description

Knossos: 27.163122 E, 35.297778 N

Phaistos: 24.814633 E, 35.051103 N

Malia: 25.493153 E, 35.292869 N

Zakros: 26.261061 E, 35.097981 N

Kydonia: 24.019375 E, 35.516278 N

Crete, prominently and strategically located in the East Mediterranean Basin, formed the bridge between the peoples and cultures of three continents, Europe, Africa and Asia, and was the cradle of a splendid prehistoric civilisation in the land of Greece, the Minoan civilisation.

The civilisation was named “Minoan” by Arthur Evans, the excavator of Knossos, which, according to myths preserved by ancient writers, was the seat of King Minos. The Minoan civilisation is connected to a great chapter in Greek mythology: the abduction of Europa by Zeus in the form of a bull, the ingenious Daedalus and his son Icarus, the Minotaur and the Labyrinth, the seven youths and seven maidens sent from Athens as tribute to Minos, the Athenian hero

Theseus - who, with the assistance of Ariadne, rid his city of this blood-tax - the bronze giant Talus and the Argonauts, are all inextricably linked with the civilisation of Crete and its palaces, and have been a source of inspiration not only for ancient Greek culture but also for world art, music and literature.

The archaeological excavations carried out on Crete from the 19th century onwards continue to reveal, from one end of the island to the other, from east to west and north to south, this age-old civilisation in all its glory. Its elements have been identified even outside its geographical boundaries, since the maritime superiority of the Cretan seafarers and their expansion across the Mediterranean brought them to prominence, at the beginning of the 2nd millennium BC, as a leading power. From their contact with the peoples of the Mediterranean coast through the flourishing transit trade, they absorbed elements of contemporary civilisations, shaping a singular and special cultural foundation that exercised a tremendous influence on the Mycenaean and, through it, the later Greek civilisation.

The Minoan civilisation that developed over the course of two millennia (2800-1100 BC) culminated in a high peak for its time, boasting marvellous buildings, a ground-breaking water and drainage system, equal participation of men and women in religious and social life, and masterpieces of art. The major earthquakes that hit Crete shortly before the end of the Middle Bronze Age resulted in the destruction of many Minoan centres, but also led to the rebuilding of yet more splendid palaces in the immediately ensuing period. The palatial centres played a vital part in the evolution, development and propagation of Minoan civilisation and marked the social transformation from the proto-urban communities of the Early Bronze Age to a multifaceted and hierarchical society. The political, social, economic and religious reorganisation, the transformation of private life, and the unprecedented cultural development that emerged from the gradual centralisation of power and the accumulation of wealth, were focussed on the palatial centres, each of which covered a large populated area of Crete.

The Minoan palatial centres stand out for their unique monumental architecture, with its complex internal organisation, which passed into ancient Greek memory as the “Labyrinth”. They constituted the administrative, economic and religious centres of a wider geographical area and housed multiple activities. They not only contained the residences of the rulers and the priesthood, but were home to a multitude of people: artisans (metalworkers, potters, weavers, etc.), merchants, scribes. Various events and contests were held around the palaces.

Most of the palatial centres share common architectural features. They consist of a large, rectangular central court, around which are set multi-storey wings (sometimes reaching four storeys), which house the various activities: residential apartments, reception areas, archives

(which have produced tablets incised with the famous Linear A and Linear B scripts, the oldest forms of writing in Greece), treasuries, sanctuaries, large storerooms, kitchens, workshops, theatral areas, all providing a picture of a small, vibrant city.

The wings were furnished with propyla (porticos), verandas and colonnades that opened onto light wells and inner courtyards, ensuring that the inner rooms were well lit and aired. The walls were faced with marble orthostats and brilliant frescoes. In the workshops, the palace artisans produced masterpieces in gold and ivory, bronze and faience, sealstones, figurines, clay and stone vessels, many of which were destined for export to the countries of the Aegean and the East Mediterranean.

Notable centres of power in the Minoan age were the palatial centres of Knossos, Phaistos, Malia, Zakros and Kydonia, which are distributed in different geographical units, from the eastern to the western end of Crete.

### **1) PALATIAL CENTRE OF KNOSSOS**

The palace of Knossos, the most important centre of the Minoan civilisation, is located in the Regional Unit of Heraklion. It stands on the “tou Tselebi I Kephala” hill, west of the River Kairatos, and covers an area of approximately 20,000 sq.m. Originally uncovered by Minos Kalokairinos in 1878, the palace was excavated by Sir Arthur Evans in the first three decades of the 20th century, and is still being investigated by the British School of Archaeology today. The earliest human habitation was in the Neolithic period, on the site later occupied by the Minoan palace.

The palace was founded circa 2000 BC (Protopalatial period) and, following many destructions, was rebuilt on the same site and flourished in the Neopalatial period (1750-1430 BC). In the Postpalatial period (1400-1100 BC) it was the only Minoan palace that was still partly inhabited. It even preserved its administrative character, as the discovery of an archive of Linear B writings indicates.

The palace consists of wings set around a rectangular paved court, while the West Court was an important point of reference in the whole architectural complex. The West Wing housed the storerooms, the sanctuaries and the Throne Room, while the East Wing contained the private apartments and the workshops.

The city spread out over a wide area around the palace, with particularly important monuments and buildings, roads, cemeteries, workshops, quarries and sacred spaces. The wider archaeological area of Knossos also flourished in Historic times.

### **2) PALATIAL CENTRE OF PHAISTOS**

The palace of Phaistos is one of the largest palaces in Crete and is located in the Regional Unit of Heraklion. It came to light during the excavations carried out by the Italian archaeologist F. Halbherr in the last two decades of the 19th century, while the Italian School of Archaeology continues investigations in the area today.

In the Minoan period, Phaistos was the control centre of the south coast of Crete, and is mentioned by Homer as the kingdom of Minos’ brother Rhadamanthys, son of Zeus and Europa, who took part in the Trojan War and later became one of the three judges of the dead in Hades. The palace was originally built circa 1900 BC, at the western end of the MeZara, the largest plain in Crete. In the later Greek world, Phaistos was known as the home of the great sage Epimenides.

The hill of Phaistos was first inhabited during the Late Neolithic period, circa 4500 BC. The first palace was built in the Protopalatial period (1900 BC), covered an area of approximately 8,000 sq.m. and extended over the three stepped terraces of the hill. It was destroyed by an earthquake circa 1700 BC. On the ruins of the old palace was constructed the new palace, which survived until 1450 BC, when it was destroyed and never rebuilt. The city of Phaistos, as a whole, extends over three hills and was already very large in the Old Palace period. It continued in use after the destruction of the New Palaces. It flourished once more in Geometric and Hellenistic times, but was destroyed in 150 BC by the neighbouring city of Gortys, which became the new great power of south Crete.

### **3) PALATIAL CENTRE OF MALIA**

The palace of Malia is located on the north coast of Crete, in the Regional Unit of Heraklion. It is the third-largest Minoan palace and was, according to tradition, the seat of Sarpedon, the youngest brother of Minos. The first excavations were carried out in the early 20th century by the archaeologist Iosif Hatzidakis, but the systematic excavation of both the palace itself and the Minoan city was continued by the French School of Archaeology.

The palace was originally built circa 2000-1900 BC. It was destroyed at the end of the Protopalatial period (1700 BC) and rebuilt circa 1650 BC on the same site, following the basic layout of the old palace. Some alterations were made in later periods. The palace was totally destroyed at the same time as the other palatial centres, around 1450 BC, while there was a brief period of re-occupation in the 14th to 13th c. BC.

The palace of Malia covers an area of approximately 7,500 sq.m. and its layout is similar to that



of the palace of Knossos. Various quarters and individual town houses of the town have been excavated, the most important being Quarter Z, Houses E, Da, Db and the major Quarter M. Surviving port installations on the coast indicate that the palace of Malia was a gateway to the Aegean Sea during the Minoan period.

#### 4) PALATIAL CENTRE OF ZAKROS

Zakros is located at the southeast end of the Regional Unit of Lasithi, on a natural bay. In 1961 N. Platon began the archaeological excavation of the site, bringing to light a palace with impressive finds, as it had remained unlooted after its destruction.

The palace of Zakros preserved today was founded in the Neopalatial period (c. 1600 BC). Like all the palaces known to date, it consists of four wings set around a rectangular central court. The building, which was at least two storeys high, was bounded by an enceinte, forming gardens inside.

The economic peak of the palatial centre of Zakros was obviously due to the part it played in the maritime “trade” of Minoan Crete with other centres of the Aegean and the East Mediterranean. Evidence of its links with the East is provided by the discovery, in a storeroom in the West Wing, of four elephant tusks and six bronze talents, imported on the same overseas journey.

Around the palace, on two hills, extended the settlement. Approximately 35 houses have been excavated, considered to be annexes to the palace. Between the houses ran paved stepped streets with rainwater drainage ducts, delimiting large building blocks. The town was densely populated, so there were no open spaces.

The palace and the town were suddenly destroyed in 1450 BC, at the same time as most of the settlements of Crete, marking the end of the Neopalatial period.

#### 5) PALATIAL CENTRE OF KYDONIA

The Minoan palace of Kydonia, discovered by Greek, Danish and Swedish archaeologists, is located in the modern city of Chania in northwest Crete. The low Kastelli hill, rising above the natural harbour and the plain of Chania, was selected during the Prepalatial period (c. 3500-2000 BC) as the most convenient site for the establishment of the first organised Minoan settlement in the Chania area. Present-day Chania lies on the site of Minoan and Classical Kydonia, while the excavation data support the view that the latter was the most important city of west Crete, in both the prehistoric and the historic period.

The Neopalatial (c. 1700-1450 BC) and the Mycenaean (1450-1200 BC) settlement of Chania forms one of the palatial centres of Minoan Crete, on the basis of the large number of tablets inscribed in Linear A and B, and of seals which have come to light, revealing a centralised authority and bureaucratic organisation. The very important buildings of the period indicate the existence of a meticulous urban plan, which includes at least one particularly notable sanctuary.

The location of Chania as the closest major Cretan settlement to the centres of the Peloponnese and mainland Greece, played a determinative part in this. The contacts of the city were not limited to the rest of Crete, mainland Greece and the Cyclades, but extended as far as Cyprus, Canaan, Syria, Egypt, Italy and Sardinia.

A particularly revealing fact as regards the history of Kydonia was the discovery of tablets in Linear B script, one of which refers to a sanctuary of Zeus at which Zeus and Dionysus were worshipped.

#### Justification of Outstanding Universal Value

The Minoan palatial centres are the main witnesses to the Minoan civilisation, that of a great Bronze Age maritime power which exercised an enormous influence on cultures - both contemporary and later - of the East Mediterranean.

They highlight an early form of complex urban society, with marvellous buildings, a groundbreaking water and drainage system, masterpieces of art and early writing systems (“Cretan Hieroglyphic” and Linear A, which have not yet been deciphered).

Through the Minoan palaces arose the first organised form of exercising foreign policy through diplomacy in the Aegean, leading to the development of relationships with other civilisations of the East Mediterranean, such as those of Egypt and Syro-Palestine, a fact proven beyond doubt by the archaeological finds.

The myths connected to the Minoan palaces (the Minotaur and the Labyrinth, Daedalus and Icarus, Theseus and Ariadne, etc.) exercised a great influence on mythology and the arts throughout the ancient world and remain a source of inspiration for world art, music and literature today.

**Criterion (ii):** The Minoan palaces bear witness to a very early form of complex urban society and application of complex economic systems, which arose in Crete during the Middle and Late Bronze Age. They constitute an important archaeological testimony to the organisation of towns and cities, and to the development of the monumental architecture, technology and high level

of art attained by the Minoan civilisation.

**Criterion (iii):** The Minoan palaces are the most characteristic and impressive testimonies of the Minoan civilisation that flourished during the Bronze Age (1900-1400 BC). Complex monuments, constructed to serve the various needs and functions of the Minoan cities, they constitute the most important archaeological evidence for the understanding of the Minoan civilisation, its social organisation and its high level of intellectual and artistic development (frescoes, vase-painting, etc.). This complex socio-economic system led to the creation of two protohistoric writing systems, “Cretan Hieroglyphic” script and Linear A, which played an important part in the context of the Aegean civilisations, in both the Middle and the Late Bronze Age. It was from Linear A that Linear B was born in the Aegean world.

**Criterion (vi):** The myths connected to the Minoan palaces (the Minotaur and the Labyrinth, Daedalus and Icarus, Theseus and Ariadne, etc.) exercised a great influence on mythology and the arts throughout the ancient world and remain a source of inspiration for world art, music and literature today.

**Statements of authenticity and/or integrity**

The degree of authenticity and integrity of the palatial centres permits the reconstruction of their form and function, elements attesting their Outstanding Universal Value. Public and private buildings decorated with frescoes of exquisite artistry and craftsmanship, structured squares and streets permit the reconstruction of the urban planning, the dimensions, the morphological characteristics and the function of the structures of the palatial centres. The wealth, variety and state of preservation of all kinds of find are truly exceptional.

These monuments are subject to a special protection framework (designations and protection zones), while they are also under the constant care and observation of the relevant Services of the General Directorate of Culture, in order to avert any risks.

Although the early reconstruction work on the palace of Knossos, long before the Second World War, is responsible for the addition of modern materials and insufficiently documented modifications, it does largely approach the original form of the palatial monument at the peak of its development. However, the problematic points of the old reconstructions have been identified and recorded, and the issue of dealing with the older mistaken restorations is handled by a special Committee for the “Conservation, Consolidation and Promotion of the Palace and Archaeological Site of Knossos”. Conservation and promotion work is being carried out on the peripheral monuments of Knossos (Royal Villa, House of the High Priest, Royal Tomb), with funding from a National Strategic Reference Framework programme, and a study on the

unification of the peripheral monuments with the core of the palace is in preparation.

At the palaces of Phaistos and Zakros extensive consolidation work is being carried out, with funding from national funds and European Programmes.

**Comparison with other similar properties**

Of the monuments on the World Heritage List, there are similarities with the palatial centres of Mycenae and Tiryns, the imposing remains of the Mycenaean civilisation in Greece, which have been greatly influenced by the Minoan civilisation. Minoan and Mycenaean centres dominated the East Mediterranean during the Bronze Age. However, the Minoan palaces are a uniquely significant testimony of the Minoan civilisation, which predates the Mycenaean one and is not represented on the World Heritage List.



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