

## Review

# Minoan culture and tourism

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The Greek culture was enormously influenced by the Minoan culture, as was its foundation stone. It had been developing in Crete from the 3<sup>rd</sup> millennium to 2<sup>nd</sup> millennium BC and being an ode to joy and life. The frescoes representing noble dresses and jewelry of Cretan females, pleasure in sports activities and nature, as well as serene and happy people are genuine masterpieces. A substantial number of sites with remains of Minoan culture have been discovered on the island of Crete. Pendlebury, a renowned British archaeologist, listed nearly sixty sites of that type in the first phase, above twenty in the second and above sixty in the last phase of Minoan age. The well-known and most significant sites of Minoan culture are Knossos, Festos, Malia, Zakros and Agia Hagia Triada. The most interesting archaeological site is the Palace of Knossos reconstructed with its surroundings, including the cereal storerooms, porches and gardens. The Palace of Knossos, with its Grand Staircase with columns, numerous rooms and the throne room, was the palace of the oldest kingdom in Europe. The elegant throne with its high back, carved in stone has been standing in the same place, flanked by the Griffin (mythological creature half lion, half eagle) fresco. Today, the Minoan culture might be observed at archaeological sites and museums, which have been successfully valorized for tourism purposes. H. du Cros model for tourism valorization will be used to highlight what makes a successful tourism valorization of archaeological sites and museums representing the Minoan culture from the aspect of tourism. Moreover, subindicators in tourism sector analyzing market attractiveness and importance factors in tourism product design as well as management sector analyzing cultural significance and robustness will be applied.

**Key words:** Minoan culture, archaeological sites, museums, management.

## INTRODUCTION

Crete is the largest of the Greek islands, covering the area of 8,378 km<sup>2</sup>, situated south of the Greek mainland. It is 260 km long from west to east and 55 km wide from north to south. On the north, there is the Aegean Sea, on the south there is the Mediterranean.

The traffic position of Crete is a favorable one since it is situated between Europe, Asia and Africa. It lies approximately 100 km south of the Greek mainland, 720 km from Cyprus, 420 km from Alexandria and 800 km from Malta (Biocic et al., 1962).

Lying roughly at the same distance from the mainland of Greece, the Cyclades, Rhodes and Libya, the island of

Crete flanks the southern entrance to the Aegean basin and must always have been a focus for the sea-travellers between the coast fringes of Europe, Asia and Africa (Willetts, 1977).

Culture is consistently argued to be a major determinant of the growth of tourism and leisure consumption. The World Tourism Organization, for example, asserted that cultural tourism accounted for 37% of global tourism. Such figures are often bandied around (Janarius, 1992; Bywater, 1993), but are rarely backed up with empirical research. According to the European Heritage Group, attendance at museums, historical monuments and archaeological sites has doubled between 1977 and 1997 (European Commission, 1998).

At first, tourism position was not favorable, due to its

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peripheral position and distance from the most significant emissive areas. However, the development and growing air transport contributed to the accessibility of the island. Furthermore, the sea transport should not be neglected for its growing role in tourism travelling. The position of Crete within subtropical maritime area and its wealthy cultural and historical heritage, unique in the world, contributed to Crete becoming the goal of tourism travelling.

## MINOAN CIVILIZATION

In the works of Herodotus and Tukidid there are written proofs of king Minos, who made Crete into a powerful naval state. In the myths, Crete represents cultural center from which many technical inventions were brought to Greece (Daedalus; Greek: Daidalos).

This mythical Athenian inventor was regarded as a patron hero of craftsmen. According to legend, Daedalus invented carpentry and woodworking, among other skills. Traveling to Crete, Daedalus constructed a number of fabulous works, including the mechanical cow in which Queen Pasiphaë was able to quench her unnatural lust for a bull. Imprisoned by the enraged king Minos on account of the Pasiphaë episode, Daedalus and his son, Ikaros, escaped flying away on mechanical wings attached to their arms. But Ikaros, despite his father's warning, soared too close to the Sun, which melted the adhesive wax on his wings, and plummeted to his death in the Aegean sea. Ikaros' fatal flight has often been interpreted as a metaphor for Hubris and overreaching ambition. The Athenians commemorated Daedalus in a Deme (city ward) named Daidalidai, "the descendants of Daedalus." The Athenian philosopher Socrates (469 to 399 B.C.E.), a sculptor or stonemason by profession, claimed to be personal descent from Daedalus-perhaps jokingly or symbolically (Sacks, 2005). History of Crete became known after the excavations of Arthur Evans at the end of the 19<sup>th</sup> and beginning of 20<sup>th</sup> century (Struve and Kalistov, 2000). In 1892, British archeologist Dr Arthur Evans bought a mineral from Greek women in Athens, who wore them as charms. His curiosity was awoken by hieroglyphics carved in them that were not understood by any educated person. He discovered that all clues of minerals lead to Crete, Evans traveled to Crete to collect the remains of what he believed was old Crete writing. In 1895, he continued to gather samples of what is believed to be the old Cretan alphabet. In year 1895, he purchased a part, and in the 1900. The rest of the site, which Heinrich Slimane and France in Athens identified as Knossos. In nine weeks, with 150 people, he dug out a largest wealth of modern historical inquisitions, the palace of Minos (Djurant, 2004). D. G. Hogarth, Director of the British School at Athens, who accompanied Evans at the start of the excavations, wrote: "For us then and no others...Minos was waiting

when we rode out from Candia (Heraklion). Over the very site of his buried throne a desolate donkey drooped, the only living thing in view. He was driven off, and the digging of Knossos began" (Higgins, 1973). After this discovery, came about the expansion of explorers in Crete, which lead to discovering of more archaeological locations from the past (Djurant, 2004).

Minoan culture evolved in the center of Crete from 3000 BC. The largest city on the island was Knossos, and the rest were Festos, Malia and Gurnia. It is still not clear if Minoans came here from Asia or they are descendants from the indigene people of neolithic time. Archaeological findings show that they had early trade contacts with Egypt and in year 2200 BC in the vast areas of Mediterranean.

Minoan civilization reached its peak between year 2200 and 1450 BC. Around year 1799 BC, Knossos and Festos were probably destroyed in the earthquake, but were rebuilt later. In the next century Knossos went through one more final catastrophe, when Crete was most likely invaded by Mycenaean army from the mainland part of Greece (Amstrong, 2006).

History of Minoan civilization is divided into three periods:

- a. Early Minoan period from 3000 to 2200 BC;
- b. Mid Minoan period from 2200 to 1600 BC;
- c. Late Minoan period from 1600 to 1250 BC.

On the island of Crete, all three periods of Minoan culture were discovered. English archaeologist Pendleberry mentions around sixty such sites for the first phase of mid Minoan period, over twenty for second phase, and over sixty for the last phase of the same period. Locations were found in all parts of the island (Struve and Kalistov, 2000).

For its economic greatness, rich culture and art that lasted more than 15 hundred years, unique taste, Crete and Minoan culture are one of a kind. This is probably why Crete had and took important spot in Greek mythology, so that Zeus, the main god of Greek Pantheon was born there (Gavela, 2002).

Religious believes of Minoans changed over the time. In the third millennium BC Minoan religion was totemic (a mystical relationship with a spirit-being, such as an animal or plant) and cult of feminine deities. In the palace and domestic shrines, very often feminine deities are represented with snakes. In the mid second century BC, the bull was worshiped, so the games with the bull were very often seen in Minoan art. The prominence of women in palace frescoes and the numerous figurines of bosomy goddesses found on Cretan sites have even prompted speculation that Minoan society continued to be a female centered culture of the kind that, as we have seen has sometimes been postulated as the indigenous society of prehistoric Europe (Martin, 2000).

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Minoan religious ceremonies were distinguished for their diversity. Based on the saved presentations, it is thought that they consisted of dances, singing and giving of sacrifices. Minoans believed in the afterlife, so they would bury the dead with weapons, utensils and they build burial temples. They also sacrificed the cattle, usually bulls and goats, and around the dead they would put small figures of bulls. The burial of Minoan is best presented on the sarcophagus from Hagia-Triada that dates from the 14<sup>th</sup> or 13<sup>th</sup> century BC.

Minoans would build monumental shrines, and their sanctuaries were located in little spaces, in which the ceremony was performed by one or two people. In Knossos, close to storages, workshops, and living spaces, there were spaces that were dedicated to ritual ceremonies (Struve and Kalistov, 2000).

In many Minoan cities, the written temples were found. Around the 22<sup>nd</sup> century BC, they knew pictographic writing, which means that some terms were explained with pictures. They read from left to right, and sometimes they used crosses to divide the group of signs. In the 18<sup>th</sup> century BC, Minoans started using linear writing, in which every sign means syllable (it had 137 symbols). One third of the symbols originate from old pictographic writing, where the rest were introduced for the first time.

In Festos, the clay disc, which had letter in carving was found. This means there were symbols on these discs that differed from the mentioned Crete writing. The lines of text went in spiral direction from the edge to the center. The well known "Festos Disc", was not decoded until today. The only conclusion that scientists came to is that it was of foreign origin, and most likely from Asia.

Besides writings, Minoans had a well distinguished numeral system. Calculating on Crete was based on decades system. Minoans knew of four arithmetic operations adding, subtracting, multiplying and dividing and also fractions (Struve and Kalistov, 2000).

## **MINOAN ART**

Minoan art is like a Ode to Joy, full of happiness differing from the art in Egypt which evolved at the same time and was devoted to afterlife. It developed through three kinds of art, and those are: architecture, painting, and sculpture.

### **Architecture**

Palaces were the main sources of information in Minoan

architecture, a like palace in Knossos, Festos, Hagia Triada and Malia. They were often destroyed in the earthquakes that were frequent on this island. On the ruins of old palaces Minoans would build new and richer palace (Digest and Pegaz, 2007). Palace in Knossos is the most important, because it consisted of many rooms, so in the Greek mythology it is remembered as Minotaur labyrinth (Janson, 2005). Palace is carefully dug out and partially restored.

Living rooms and conference rooms, chambers and baths, galleries and staircases, originally with around 1300 rooms, were arranged in one rectangular space with are of 2000 m<sup>2</sup> (Digest and Pegaz, 2007).

During the building period there was no intent of making the effects of monumentality, but many vestibules, staircases and air openings, gave the palace the feeling of openness and good lighting. Some of the spaces had a richly decorated wall and contributed to lofty atmosphere (Janson, 2005). Center of palace was represented by a main yard with a rectangular base. With this yard many large and small palace spaces were connected in a larger space, and the yard was also a source of light for all of them.

Technical construction of palace differs from the home of the rest of the citizens. The walls of the palace were first built from the stone blocks that were made from the broken stones connected with clay and then covered with stone plates and mortar (Struve and Kalistov, 2000).

On the west side of the yard were the representative rooms, with the royal hall, shrines, chambers for goods such as huge clay jars, animal foods and halls of treasure. The very large hallway was originally longer than 100m. This was when it was still uncovered street, but later it was scaled to dimensions of the yard during the last reconstruction. The hallway clearly divided architecture of the storage, long and narrow dark passages from the complex architecture of the royal rooms. On the opposite east wing, hall was put perpendicularly and not in length. This hall divides real residence of the king (on the south side) from the workshops (in the north wing). Additional rooms, such as rooms for servants or guard men, as well as additional rooms that took up the spaces of the south and north part of the palace. East part of palace is the queen's megaron, as Evans called the female room in Frescos richly decorated. Megaron gives an appearance profound culture of living in Minoan royalty. Queen rooms also had a boudoir, woman's dressing room, bathroom with a large tub, and a toilet (Digest and Pegaz, 2007).

### **Painting**

Art paintings were wall decorations. They show the scenes from the life of Minoan rulers in the castle. Minoan paintings were full of creators' imagination, and the life on the sea was the main theme of Minoan painter.

Paintings with fish and dolphin are called "Sea Life" and are located in the Minos' palace. There is no doubt that the bull was a sacred animal, and jumping over it was an important religious ritual for Minoans. This can be seen on the painting of "Toreador", in the palace of Knossos where the gymnast with a wide waist jumps over the back of the bull. The bull is large and impresses with its strength and power and it is a contrast to the thin body of acrobat. The young man, with some kind of a usual twist on the hands jumps over the bull while a girl that stands behind the bull helps him. Around the head of the bull stands another young woman that holds the bull by his horns and gets prepared for the daring jump. These games were shown in many Minoan wall paintings with a seal on the bronze tablets (Janson, 2005).

### Sculpture

There was sculpture of different dimensions found in Crete. Minoans did not have the temples and therefore there are no monumental sculptures. Sculptures were small in the size, three dimensional and made out of different materials (marble, baked clay, ivory with the golden applications, bronze, gold and deer horns).

In 1650 BC, the "Snake goddess" was found in Knossos. She represents the feminine figure with a very thin waist, large bare chest and large hips (symbol of womanhood). In the ritual games, snakes represented the symbol of male manhood in many old religions (Janson, 2005).

### THE MOST IMPORTANT ARCHAEOLOGICAL LOCATIONS

The most famous and most valuable archaeological locations of Minoan culture on Crete are: Knossos, Festos, Malia, Zacros, and Hagia Triada. The most important temple of Minoan culture is the castle in Knossos. This archaeological location is 5 km south-east from Heraclion in the valley of river Kairatos. The larger part of palace is now just the first floor. Near the main, large palace, two more palaces are discovered, and they belonged to a palace complex that gained their name - small palace and king's villa. These buildings were linked to a large palace with wide stone plated streets (Struve and Kalistov, 2000).

The palace in Festos is located in the southern part of central Crete. The palace is situated in Mali on the northern coast of Crete, east of Heraklion. North of the castle there is Minoan cemetery, which was in use in early Minoan period. It contains first known grave stone in Crete, which is divided in the rooms. This is one of the most significant Minoan findings, gold earrings with the presentation of two bees, which kept berry shaped fruiter (www.uk.didiserve.com).

Palace in Zacros is located on the east shore of Crete, south of Palaicastra. This was a last dug out palace and one of the most important and smallest out of the other three. Palace was surrounded by a city, from which only one part was researched. Houses were often very big, they had 30 rooms and they were placed in blocks. In the city there were a few presses for making of olive oil and well as wine presses.

Hagia Triada was located few kilometers from Festos and represents a village from the mid-Minoan period. At the location there were also Linear tables and clay seals found, and they show and existence of local bureaucracy and that the building was used for the storage of product, with keeping of record (www.uk.digiserve.com).

### THE MOST VALUABLE MUSEUMS

After important discoveries in the end of the 19<sup>th</sup> and the beginning of 20<sup>th</sup> century, there was a need for a large number of tools with priceless value, to preserve, restore and exhibit to the public. This is why the larger cities of Crete, have so many archaeological museums which nowadays represent institute of culture of European and world importance. Archaeological museum such as Heraclion is located in the downtown area and was built between years 1937 and 1940.

This was one of the largest and most important museums in Greece, Europe and the world. It consists of the mobile archaeological material from the period of Christian history and reaches over 5500 years, from neolith to roman period. The great importance is given to a Minoan collection that consists of unique samples of Minoan art, from which some are true works of art. Heraclion museums are the most valuable museums of Minoan culture in the world. It has frescos from Knossos, the famous Festos disc, statue of the snake goddess, as well as other discoveries (www.explorecrete.com).

Archaeological Agios Nicolaos is the second most important museum in Crete, and it was founded in year 1970. It consists of very valuable collection of archaeological findings mainly from the east part of Crete, the area between Malia and Zacros. One on the most famous sculptures of this area is the goddess from the museum in Mirtos. This is the container that had a shape of a woman and it was discovered in the Bronze Age in Fournos, close to Mitros. Museum consists of the Minoan bobby pin, crown, and diadem that were found in the silver case. Also there are jewelry and goods made out of bones. This archaeological material displays the way of dressing and hair style that were in during the time, and also shows the places of praying (www.crete.tournet.gr).

Archaeological museum Hania is located in the Helidon street, in the center of the old city, from the year 1963 it was located in the church of Saint Franc, that used to belong to the Franc row that represents an important

**Table 1.** The number of visitors to archaeological sites of Minoan culture in Crete.

Year	Number of visitors to the archaeological site					
	Knossos	Festos	Malia	Zakros	Agia Triada	Total
2004	140,733	34,219	14,672	4,498	4,191	198,313
2005	650,611	134,983	49,211	16,277	12,716	863,798
2006	705,305	131,475	56,973	14,995	12,405	921,153
2007	680,323	128,278	51,396	13,468	12,221	885,686
2008	610,664	105,513	37,841	11,492	9,548	775,058
2009	588,996	99,446	29,419	9,567	9,368	736,796

Source: [www.statistics.gr](http://www.statistics.gr).

cultural good of Hania. The exhibition space of the museum consists of the period from neolith to Roman time ([www.go2crete.com](http://www.go2crete.com)).

Archaeological museum Rethymno is situated in front of the central gate of The Venetian Fortezza castle. The building was built by the Turks to protect the entrance to the fortress. The display of the museum includes the prehistory and history artifacts. The tools and the statues belong to the early Minoan period, among which a small statue in the shape of a violin should be mentioned. Findings from the middle Minoan period are mainly from the complex buildings from the sites of Apodoliu and Monastiraki, the temple centre near Vrisinas. The most interesting are stone seals and clay models of temple, of which only upper parts were preserved. The late Minoan period is presented by archaeological material mainly found at local cemeteries, the most significant being the one near Armeni. The impressive boar tooth helmet, clay figurine of a goddess with raised hands, arms, jewelry, tools and rich ceramic works are among the most important displays ([www.greekhotel.com](http://www.greekhotel.com)).

Archaeological museum of Sitia is situated on the road leading to Ierapetra. It was founded in 1984 and ever since, it has been housing the objects ranging from 3500 BC to 500 AD. Archaeological material from the Minoan period is mainly from the Palace of Zakros. Among the most important, there are clay tablets with the inscription in undeciphered Linear A script and one of the oldest wine presses ([www.explorecrete.com](http://www.explorecrete.com)).

#### THE NUMBER OF VISITORS AND REVENUES OF MINOAN CULTURE MUSEUMS AND ARCHAEOLOGICAL SITES

The significance of Minoan culture for the tourism of Crete is immense. It can be only roughly perceived by means of the number of visitors and tourism revenues. However, its significance is indirectly broader, since Minoan culture with its cultural assets represents the symbol of the island of Crete, differentiating it clearly from other parts of the world (Table 1).

The most visited archaeological site of Minoan culture is Knossos, with 705,305 visitors in 2006 (76.56% of the

total visits to archaeological sites in Crete intended for tourism visits). The same year the total number of visitors to Knossos, Festos, Malia, Zakros and Hagia Triada were visited by 921 153 visitors with the total revenue of 4,722,691 Euros. The visits to archaeological site Knossos brought the revenue of 4,072,318 Euros (Table 2).

The museums in which the artifacts of Minoan culture are displayed seem less attractive for visitors compared to the archaeological sites of Minoan culture. The largest and the most attractive museum is Heraklion, visited by 246,409 visitors in 2006. The same year brought the 322,320 visitors to all museums with exhibited artefacts of Minoan culture, which makes 76.44% of the total number of visitors visited the museum of Heraklion (Table 3).

The total revenues for the visits to museums with exhibited artefacts of Minoan culture were 1,375,979 Euros in 2006. The same year brought the revenues of 1,246,526 Euros to the Museum of Heraklion, which made 90.59% of the total revenues in museums with exhibited artifacts of Minoan culture (Table 4).

In 2006, the hotels in Crete recorded 1,850,145 tourists, among which 83.4% foreign tourists. The camps in Crete recorded 3,210 tourists, among which 59.58% foreign tourists in the same year. Statistically, it can be concluded that Crete was visited by 1,853, 767 tourist in 2006 (General Secretariat of National Statistical Service of Greece).

In addition, out of the total number of recorded tourists in Crete, 50% visited the archaeological sites of Minoan culture in Crete, whereas only 17.38% tourists paid a visit to museums where the artifacts of Minoan culture are exhibited. The total revenues for the island of Crete based on visits to cultural assets reached 6,098,670 Euros in 2006 (Table 5).

#### TOURISM VALORIZATION OF ARCHAEOLOGICAL SITES AND MUSEUMS OF MINOAN CULTURE BY HILARY DU CROS MODEL

Tourism valorization of cultural assets, that is the estimation of their value from the aspect of tourism, is essential in planning sustainable cultural tourism

**Table 2.** Revenues of archaeological sites of Minoan culture in Crete (in EUROS).

Year	Revenues of archaeological sites					Total
	Knossos	Festos	Malia	Zakros	Agia triada	
2004	723,919	111,170	40,096	11,642	8,782	895,609
2005	3,863,528	426,722	143,286	37,163	31,926	4,502,625
2006	4,072,318	422,126	163,994	33,927	30,326	4,722,691
2007	3,545,888	428,807	146,886	29,555	27,925	4,179,061
2008	3,588,351	410,040	126,356	25,542	21,718	4,172,007
2009	3,427,934	381,940	113,050	20,904	22,173	3,966,001

Source: www.statistics.gr.

**Table 3.** Number of visitors to the museums in Crete where the artefacts of Minoan culture are exhibited.

Year	No of visitors to museums					Total
	Heraklion	Agios nikolaos	Chania	Rethymno	Sitia	
2004	53,645	3,507	9,232	6,876	1,151	74,411
2005	231,232	13,541	27,904	20,379	3,629	296,685
2006	246,409	13,961	34,911	23,714	3,325	322,320
2007	74,013	22,023	38,442	21,987	3,447	159,912
2008	104,717	11,755	20,090	17,950	3,305	157,817
2009	108,330	11,231	21,752	15,942	3,491	160,746

Source: www.statistics.gr.

**Table 4.** Revenues (in EUROS) of the museums in Crete where the artifacts of Minoan culture.

Year	Revenues of museums					Total
	Heraklion	Agios Nikolaos	Chania	Rethymno	Sitia	
2004	291,175	6,630	10,005	13,330	1,513	322,653
2005	1,339,670	25,981	38,074	47,600	5,580	1,456,905
2006	1,246,526	27,481	45,955	51,501	4,516	1,375,979
2007	271,424	46,382	54,798	56,460	4,687	433,751
2008	465,856	24,421	36,120	51,929	4,730	583,056
2009	489,676	24,034	41,674	45,932	4,615	605,931

Source: www.statistics.gr.

**Table 5.** Matrix of market appeal/robust.

Robusticity	41-60	M (1,1)	M (1,2)	M (1,3)
	21-40	M (2,1)	M (2,2)	M (2,3)
	0-20	M (3,1)	M (3,2)	M (3,3)
		0-20	21-40	41-60
Market appeal				

Archaeological location and museums of Minoan culture are cultural goods in category M(2,3), which means that they are very valuable for the development of the tourism on the island of Crete.

development in a destination. It provides the insight into the possibilities for those assets to be included in tourism development. A model is needed that will show the relationship between commercial expectations and conservation management in deciding the tourism potential of a place. Classifying heritage places will clarify which heritage places are most appropriate for initial or further development as tourism attractions. It will encourage the development of suitable heritage places and prevent the waste of resources or stop negative impacts on unsuitable ones misguidedly developed as major cultural heritage attractions (du Cros, 2001).

Hilary du Cross (du Cros, 2000) introduced cultural and tourism sub-indicators and the level of their gradation into the process of tourism valorization. The model is a complex and holistic, since it valorizes tourism sector, the cultural assets management sector and the robusticity grade of cultural assets to receive visitors (Hadzic, 2005). There is a two-way relationship that exists between the key elements of a cultural heritage place and its tourism potential. On one hand, is its cultural integrity or robusticity (the physical remains and their conservation status), and on the other hand, the commercial factors associated with transforming a heritage place into a cultural heritage tourism attraction. Ideally, a mutually beneficial relationship can exist, but in practice there is often a trade-off that can affect either the conservation of cultural values or enhancement of market appeal. The best way to avoid such a situation is to identify in advance heritage places with the best potential to both withstand heavy visitation while appealing highly to tourists (du Cros, 2001).

### **Tourism sector**

a. Market appeal comprises sub-indicators grades 0 to 5:

- i. Ambience and setting: Archaeological sites and museums of Minoan culture are situated in the island of Crete, the island of clean and clear sea, sandy beaches, endemic species of flora and fauna (Grade 5).
- ii. Well-known outside local area: Minoan culture is a unique and recognizable in the world (Grade 5).
- iii. National icon or symbol: Minoan culture is a national symbol, a testimony of culture that was preceding the ancient Greek culture, being its base. Archaeological sites and museums signet the island of Crete and Greece, since they testify one of the most significant periods in its history (Grade 5).
- iv. Evocative place (can tell a good story): Numerous myths and legends, connected with Minoan culture, are still fascinating and enhancing the spirits and minds of millions of people (Grade 5).
- v. Has some aspect to distinguish it from nearby attractions: Archaeological sites and museums, the testimony of the Minoan culture, are unique and special

in the world and clearly distinguished from cultural assets from other historical periods (Grade 5).

- vi. Appeals to special needs or uses: The sites might serve to organize various events, but the number of visitors has to be taken into account (Grade 5).
- vii. Complements other tourism products in the destination: Tourism appeal of archaeological sites and museums is increased by other tourism motives, thus the values are complementary to other tourism products in a destination, such as summer, bathing, excursion and congress tourism (Grade 5).
- viii. Tourism activity in the region: Tourism activity in the region is high, with a significant level of tourism organisation, which enables the connections of culture, tourism, private and public sector (Grade 5).
- ix. Destination associated with culture and heritage: Minoan culture is the foundation stone of classical Greek culture, thus an important part of European and world culture (Grade 5).

b. Factors significant for tourism product design:

- i. Access to cultural assets' features: Access to archaeological sites and museums is excellent(Grade 4 (Grades 0 to 4).
- ii. Good transport/access to asset from population centers: Museums of Minoan culture are situated in the largest centers in Crete, where the transport is well organized. The same is valid for most of the archaeological sites, since they are positioned most frequently near larger settlements, easily accessible by various means of transport (Grade 3 (grades 0 to 3).
- iii. Proximity to other heritage attractions: The island of Crete has long and rich history. Therefore the island hosts the remains of not only Minoan culture, but also of all other historic and prehistoric epochs: the Neolithic period, the Bronze Age, The Roman and Greek period, Byzantium, Arabic, Venetian and Turkish periods, up to the monuments from the liberation war in the late 19<sup>th</sup> and early 20<sup>th</sup> century (Grade 3 (grades 0 to 3).
- iv. Amenities: including information services, promotional material and accommodation and hospitality capacities is favorable (Grade 5 (grades 0 to 5).

Total grade of sub indicators in tourism sector is 60, that is the level of market appeal is high.

### **Sector of management of cultural goods**

a) Cultural importance

- i. Esthetic value: Esthetic value is of great importance for the preservation of architecture and work of art from the period of development of Minoan culture (Grade 2 (grades 0 to 2).

- ii. Historical value: Archaeological locations and museums are the best evidence from one of the most important time of development in the history of this location (Grade 2 (grades 0 to 2)).
- iii. Educational value: Educational value is great, because it enables the learning about the Minoan culture which is the foundation of Greek culture. It enables one to see the way of residential, functional, as well culture of living of this time (Grade 2 (grades 0 to 2)).
- iv. Scientific - research value: Scientific-research value is large, because it presents the area in which many researches were done by archeologists and Historians (Grade 2 (grades 0 to 2)).
- v. Rareness of cultural goods for destination, or region: Archaeological locations and museums of Minoan cultural are not rare in Crete. However internationally they are very rare and known for only linked to this island. This is why they became a symbol of Crete, especially archaeological location in Knossos (Grade 3 (grades 0 to 3)).
- vi. Representatives for destination: Minoan culture is the most valuable symbol of the Crete island, and this is why it is so unique and special all over the globe. Grade 4 (grades 0 to 4).

## b) Robusticity

- i. Sensitive cultural goods: Archaeological locations, as a movable archaeological material exhibited in museums, because of its value and age, represents cultural good that require necessary measures of protection (Grade 0 (0-high, 2 - 3 good, 4 - not sensitive)).
- ii. Status of restoration: Status of restoration of archaeological location great, because conservatory works are done (Grade 4 (grade 0 to 4)).
- iii. Existing of plan of supervision of cultural good: Plan of supervision is executed through authorized department of tourist organization of the island of Crete (Grade 5 (grades 0 to 5)).
- iv. Regulatory monitoring and conservation: Frequent monitoring and conservation are present in great measures (Grade 5 (grades 0 to 5)).
- v. Potential for current investing and consultation of key stay holders: area of investing is under the authority of state, because archaeological locations are of great importance for the culture, as well as development of tourism in Crete, and entire Greece. Area of great private investments in archaeological locations and museums of Minoan culture is narrowed greatly to only building of infrastructures (Grade 5 (grades 0 to 5)).
- vi. Potential of negative influence of great number of visitors for the physical status of cultural good: Great number of visitors negatively influence the cultural goods of Minoan culture, but this is under good control, especially on the most visited archaeological location, Knossos (Grade 1 (grades 1 to 5)).

- vii. Potential of modification, as well as development of a product, as well as negative physical status of cultural good: Any change on the location is forbidden (Grade 5 (grades 1 to 5)).

The total evaluation of indicators for the sector of management is 40, which represents a medium value. (Sensibility: small cultural value from 0 to 20, medium value is from 21 - 40 and high value is from 41 - 60).

According to assessed analysis "the matrix of market appeal/robusticity" is created with 9 cells, that are marked with  $M(i,j)$  ( $i,j = 1,2,3$ ) and for every cultural good there is a cells assigned to it, depending on the evaluation that it got in the previous method of evaluation.

Cells are defined in the following way:

- $M(1,1)$  - high value of indicator cultural value/robust and small market appeal
- $M(1,2)$  - high value of indicator cultural value/robust and medium market appeal
- $M(1,3)$  - high value of indicator cultural value/robust and high market appeal
- $M(2,1)$  - medium value of indicator cultural value/robust and small market appeal
- $M(2,2)$  - medium value of indicator cultural value/robust and medium market appeal
- $M(2,3)$  - medium value of indicator cultural value/robust and high market appeal
- $M(3,1)$  - small value of indicator cultural value/robust and small market appeal
- $M(3,2)$  - small value of indicator cultural value/robust and medium market appeal
- $M(3,3)$  - small value of indicator cultural value/robust and high market appeal.

## Conclusion

On the Crete Island in the year 3000 BC the new civilization was developed. Its influence for Greece and Rome are still felt to this day. The art forms of this civilization are unsurpassed and unique for the human history. The question stays, what caused the fall of this sophisticated and developed civilization? Today there are more of those who agree on the theory, which is that the main cause was the eruption of volcano on the island Terri + Santorni.

The remains of this culture lay hidden long under the ground, and the Minoan civilization was considered the product of imagination of Ancient Greeks. However, by digging of Sir Arthur Evans this culture was brought to light and showed that Greek myths had historical base and are not just a product of imagination. This finding is considered a largest archaeological discovery of the 20<sup>th</sup> century.

After the decade of Minoan culture, Crete was invaded

and conquered by many different cultures and later nations, who left a mark on its present state. From Romans to Byzantine Empire, than to Christian Venetians and Ottomans, all of them left a mark in architecture, culture and in art to present Crete.

The most famous and the most important archaeological location of Minoan culture in Crete are: Knossos, Festos, Malia, Zacros, and Hagia Triada. The most valuable temple of Minoan culture is the palace in Knossos, which is located 5km south-east from Heracklion, in the valley of river Kairatos. After the large and important discoveries in the 19<sup>th</sup> and 20<sup>th</sup> century there was a need to restore, preserve and display the large number of tools of invaluable worth. This is why in the larger cities in Crete, many archaeological museums were founded, and they still to this day represent an important institute for the European and world culture.

Crete as an island of unusual beauty and unique cultural heritage of Minoan civilization, as well as the developed transit system and receptive capacities, became one of the most important destinations of the today.

During the year 2006, from the all evident tourists on the island of Crete, archaeological locations were visited by 50% of tourists, and the museums that had moving archological material of Minoan culture 17.38%. The total income implemented in year 2006 on the island of Crete, thanks to the visits of Minoan cultural goods was 6,098,670 Euros.

Using the method of Hilary du Cross in the tourist valorization of archaeological location and Minoan cultural museums, archaeological locations and museums of Minoan culture were rated as cultural goods of great importance for the development of tourism.

In the end, it can be concluded that Crete represents tourist spot in which anthropogenic values, especially ones that are linked to Minoan culture do not fall behind on the natural values for the tourism in Crete.

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