

Archaeological Site Management: A Proposed Framework for the Management of the Acropolis of Aghurmi, Siwa Oasis

إدارة المواقع الأثرية: إطار إدارة مقترح لأكروبوليس أغورمي، سيوة

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Abstract

الملخص

Siwa archaeological area was submitted by the Egyptian Antiquities Organization to Egypt's Tentative List on 01/11/1994 to be considered for inclusion on the World Heritage List. The area contains the two temples of Ammon and several archaeological sites and monuments.

Based on the World Heritage Conventions, if the decision is made to prepare the nomination file for Siwa archaeological area, strategies and policies for site protection and management must be included in the file. Therefore, this study aims to suggest an appropriate framework for managing and preserving one of the important archaeological sites in Siwa, which is the Acropolis of Aghurmi, especially since previous studies have proven that over time and with the absence of a systematic preservation plan, the archaeological settings of the Aghurmi plateau are in danger of being lost forever. The methodology investigates international conventions and various management policies, assesses the scope of the site, including its heritage and historical values, and analyzes the current situation of its internal and external environment.

The results come up with a proposed management framework for such a site. This framework could be applied for managing other archaeological sites in Siwa or during the preparation of the nomination file.

Keywords: Archaeological Site Management; the Acropolis of Aghurmi; the Oracle of Ammon in Siwa; World Heritage List; Tentative List.

تم رفع منطقة سيوة الأثرية من قبل هيئة الآثار المصرية على القائمة المؤقتة للتراث في ١١/١٠/١٩٩٤ للنظر في إدراجها على قائمة التراث العالمي. تحتوي المنطقة على معبدي امون بالإضافة الي العديد من المواقع والمعالم الأثرية الأخرى.

بناءً على اتفاقيات التراث العالمي، إذا تم اتخاذ قرار بإعداد ملف الترشيح لمنطقة سيوة الأثرية، فيجب تضمين استراتيجيات وسياسات حماية الموقع وإدارته في الملف. لذلك تهدف هذه الدراسة إلى اقتراح إطار مناسب لإدارة وصيانة أحد المواقع الأثرية المهمة في سيوة، وهو أكروبوليس أغورمي، خاصة وأن الدراسات السابقة أثبتت انه بمرور الوقت ومع عدم وجود خطة للحفاظ والادارة، فان المواقع الأثرية بهضبة أغورمي معرضة لخطر الضياع إلى الأبد. ستقوم المنهجية بدراسة الاتفاقيات الدولية وسياسات الإدارة المختلفة، تقييم نطاق الموقع، بما في ذلك قيمه التراثية والتاريخية، وتحليل الوضع الراهن لبيئته الداخلية والخارجية.

ستأتي النتائج بإطار مقترح لإدارة هذا الموقع. يمكن الاستفادة من خطة الإدارة المقترحة كنموذج يمكن تطبيقه على المواقع الأثرية الأخرى في سيوة أو أثناء إعداد ملف الترشيح.

الكلمات الدالة: إدارة المواقع الأثرية؛ أكروبوليس أغورمي؛ وحي امون في سيوة؛ قائمة التراث العالمي؛ القائمة المؤقتة للتراث.

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Introduction

The rapid change in physical, economic and social conditions that posed further threat to the protection of both cultural and natural heritage has raised the possibility of the loss of heritage resources across the world. Therefore, deploying regulations in the form of a convention that establishes an efficient framework of collaborative preservation of heritage became necessary. As a consequence, a convention for the conservation of the world's cultural and natural heritage was formed during the 1972 UNESCO General Conference in Paris. The Convention defines States Parties' duties for prospective site identification as well as their involvement in preserving them. Each country that ratifies the Convention commits to protecting both its own national heritage and the World Heritage sites (Article. 4). The UNESCO, as well, provides a list of World Heritage Sites in the shade of this Convention (Article. 11). Egypt ratified the Convention on Thursday, 7 February 1974. Now Egypt has 7 Properties inscribed on the World Heritage List and 34 Sites on the Tentative List (World Heritage Centre, 2023a). Siwa Archaeological Area was submitted in Egypt's Tentative List on 1/11/1994 as a cultural property, in order to be on the World Heritage List. The area includes the Oracle Temple, the Ammon Temple (Umm Ubayda), and various archaeological sites and monuments (World Heritage Centre, 2023b). As posted on the World Heritage Center website (2023b), the area has been incorrectly labelled as belonging to the New Valley Governorate, whereas it actually belongs to the Matrouh Governorate. Therefore, the Egyptian Authorities should modify this information on the UNESCO website.

Five years later, the World Heritage Center released "*The Operational Guidelines for the Implementation of the World Heritage Convention*" in 1977. Since this year, such guidelines have been periodically updated to reflect World Heritage Committee decisions. The 2005 version of these guidelines stated that any nominated property must have a suitable management plan to ensure the efficient protection of heritage values for current and future generations (Operational Guidelines, 2005, par.108-109). It thus means, when the Egyptian authorities take the decision to prepare the nomination file for the inclusion of Siwa Archaeological Area on the UNESCO permanent World Heritage List, a plan for managing the area must be included. For this reason, this paper will attempt to present a framework for managing part of Siwa Archeological Area as a guideline for the future planning for the whole area. The selected site is the Acropolis of Aghurmi that includes the Oracle temple and the Berber structures on the plateau of Aghurmi. The proposed framework will also provide management recommendations and activities for the archaeological resource, as well as procedures to be followed.

Archeological Site Management

The first essential international document on the conservation and management of archaeological heritage is the ICOMOS Charter for the Protection and Management of the Archaeological Heritage (Sullivan & Mackay, 2012). This charter establishes guidelines for managing the archaeological heritage. Article 6 of the charter, which fosters the preservation of the archaeological heritage in situ, involving curation of any associated materials, illustrates the overall goal of archaeological heritage management (International Committee of Archaeological Heritage Management, 1990, Article 6).

The definition of Archeological Site Management is supported in relevant study works as a broad concept. Branch (2009) considered the management plan as a document that helps to identify archaeological potential of a particular location and offers suitable strategies and suggestions for managing it. Frequently, the terms conservation and management are used together as managing archaeological sites is a crucial component of conservation. Success or failure of a site's conservation and management efforts depends on how they will enable the long-term preservation and dynamic integration of all of its heritage values (Sullivan & Mackay, 2012)

Orbaşlı (2013) stated that, the whole actions of site management comprise research, planning, excavation, interpretation, and development.

More recently, UCL (2022) published that the *Managing of Archaeological Sites* analyses archaeological and heritage sites from a broad perspective, taking into account their global and contemporary contexts as well as current opportunities and challenges. It investigates how tangible heritage sites and landscapes are recognized, appreciated, interpreted, and used for various purposes, and examines how they might be managed more effectively.

Despite the fact that management plans have become mandatory as a consequence of the World Heritage Convention and its 2005 Operational Guidelines, UNESCO did not provide a formal template that could be used as a guideline to develop management plans for heritage sites (Ringbeck, 2018). Ringbeck (2018) attributed this to the complexity and variety of issues associated with the preservation of heritage sites. However, a range of guidelines and template for the management of Archeological Heritage Sites have been produced (e.g., Feilden & Jokilehto, 1998; Demas, 2002; Thomas & Middleton, 2003; Lim, 2005; Landorf, 2009; Cleere, 2010; Pearson & Sullivan, 2013; Cameron & Rössler, 2018). Some sites management practices also appeared in Europe, America, and Australia (Ringbeck, 2022).

Archeological Site Management in Egypt

In Egypt, the discipline that was completely focused on excavations and the investigations of inscriptions made adoption of the concepts and standards found in the *Archaeological Heritage Management strategies* challenging (Hetherington, 2009).

The Supreme Council of Antiquities' first established site management plan was for the Giza Plateau, where numerous conservation and management issues emerge. The 4-phase management plan's first part was introduced in 1988 (Hawass, 2000).

During the current millennium, some other site management plans have been introduced, such as the Valley of the Kings site management plan, developed by the Theban Mapping Project (Weeks & Hetherington, 2014), the Ramesseum site management program (Leblanc, 2008) and the CULTNAT unpublished Master Management Plan for Memphis and its Necropolis World Heritage site which was formed in 2007 (Hassan & Ehab, 2022). Furthermore, additional management projects have also been initiated at various sites, such as the West Bank, Tell Basta, San el-Hagar, Dendera, Abu Simbel, Aswan, Edfu and Kom Ombo (for further details see Hassan et al., 2015).

However, despite of recent studies, conferences, projects and legislation released for that goal, site management has not yet been put into action (Osman, 2018). According to the UNESCO World Heritage Centre web site (2023c) most of the World Heritage Sites of Egypt are threatened due to the lack of management systems or plans. Therefore, the necessity to manage archaeological sites, classify all phases of the management process, and determine how to implement each step, with a focus on evaluating and following up the results, has become a critical matter that must be applied to protect Egypt's rich heritage from the dangers of loss or destruction due to natural or human threats, or both. This is additionally required to ensure that the values of this unique heritage are passed on to future generations.

Methodology

This study integrates descriptive, exploratory and analytical approaches which are achieved through a combination of four research methods:

Analyzing International Charters and Conventions as Fundamental Guidelines

The main purpose of this paper is to design an effective planning framework for the archaeological site of Aghurmi in accordance with local legislations and a reasonable review of international conceptual, legal, and functional documents. The planning process and instructions, for this study, were excluded from international charters and conventions related to Archeological Site Management. A justification could be the progression of management policies that consequences from expert trials and errors. Taking into consideration the Egyptian Antiquities Protection Laws, the instructions of UNESCO World Heritage Convention, 1972 and its Operational Guidelines 2005, revised 2021, the ICAHM Charter (1990) for the Protection and Management of the Archaeological Heritage, the ICOMOS Burra Charter, 1999, The Management Guidelines developed by Feilden and Jokilehto (1993) and the Martha Demas' Planning Process (2013) served as fundamental models for the principal guidelines required for the suggested plan.

Reviewing Practical Samples on Archeological Heritage Management Plans

Examples of management plans, nationally and internationally, were reviewed in order to gain a deeper insight into strategies used to handle challenges and capitalize opportunities. This step contributed to the development of the management strategy and policies for the studied area. Qusayr 'Amra Site Management Plan-Jordan, Management Guidelines for Hwangryong Temple - South Korea, Historical Bazaar and Khans District, Bursa – Turkey and the Management Plan for the Valley of the Kings -Egypt, were selected as practical samples.

Field Study

The researcher has the opportunity to conduct field investigation to collect the necessary data from 2020 to 2022. During this fieldwork a variety of research techniques were used, including; interviews, frequent site visits, observation, and open discussion with some members of the local community.

Ten participants were interviewed (table.1), the selection was according to their level of knowledge and experience. The main objectives of those interviews were to determine site values, examine the current management situation, and explore potential opportunities and challenges. The interviews along with visits, observations, and discussions served as primary sources to identify the internal and external factors needed during the assessment phase, especially the SWOT analysis.

Table.1: Interviewees List

Interviewee's Code	Position	Organization
INT.1	Director	Ministry of Tourism and Antiquities/ Siwa
INT.2	Inspector	Ministry of Tourism and Antiquities/ Siwa
INT.3	Tourist Official	Matrouh Governorate
INT.4	Tourist Official	Ministry of Tourism and Antiquities/ Siwa
INT.5	Academic Specialist	Matrouh University
INT.6	Consultant Engineer	Consulting Engineer Office
INT.7	Local Tour Guide	Independent
INT.8	Local Tour Guide	Independent
INT.9	NGO Member	Member of a local association
INT.10	NGO Member	Member of a local association

Generating the Plan

The assessment of the archaeological potentials and cultural values of Aghurmi site in addition to the data collected during the previous stages, resulted in the development of a framework for the

management plan of this site consisting of three phases; Identification and Description, Assessment and Analysis, and Site Management Planning with a recommended action plan.

Importance of the study

The results of this study offer two major contributions. Firstly, it presents a management plan with strategies that focuses on the conservation and presentation of the site, its contents, and the surrounding area while employing activities that encourage local participation. The Authorities can adopt the plan which addresses majority of the site's issues, recommends actions to correct the situation and indicators to monitor the implementation of the plan over a five-year period.

Secondly, researchers or site managers can replicate the entire process and structure of the plan at another site. The Authorities, again, may use it to develop a comprehensive management plan for the entire Archeological Area of Siwa while preparing the nominated file to assign the area on the World Heritage List.

Management Plan Framework for the Acropolis of Aghurmi

Phase 1: Identification and Description

1.1 General Information

The site (29°12'19.05"N - 25°32'36.61"E) is about 1.7 kilometers east of the old town of Shali. It is 400 meters north the Temple of Umm 'Ubaydah, 3 kilometers north of the Dakrur Mountain, and about 4 kilometers east of Gabal al- Mawta.

It extends over a comparatively flat-topped limestone plateau, that rises to a height of about 30 meters above the palm groves to create a natural acropolis. It is shaped like a horseshoe, with high western, northern, and eastern edges that gradually descend to the plateau's center. The southern side is lower and resembling an entrance to the plateau (Kuhlmann, 1988). It contains several buildings dating back to different eras, starting from the Late Dynastic Period, through the Greek-Roman and the Islamic periods. The most renowned structure is the Temple of the Oracle of Ammon. Other structures include, an ancient palace, urban settlements, a mosque and a well.

The area is surrounded from the north and west by Aghurmi village dwellings, from the east by agricultural land and from the south by agricultural land and other residents' dwellings.

Boundaries, Core and Buffer Zones of Siwa archeological area, including this site, are being elaborated by Egyptian Authorities, while submitting the area on the tentative list, to ensure the protection of the whole area and its values (fig.1).

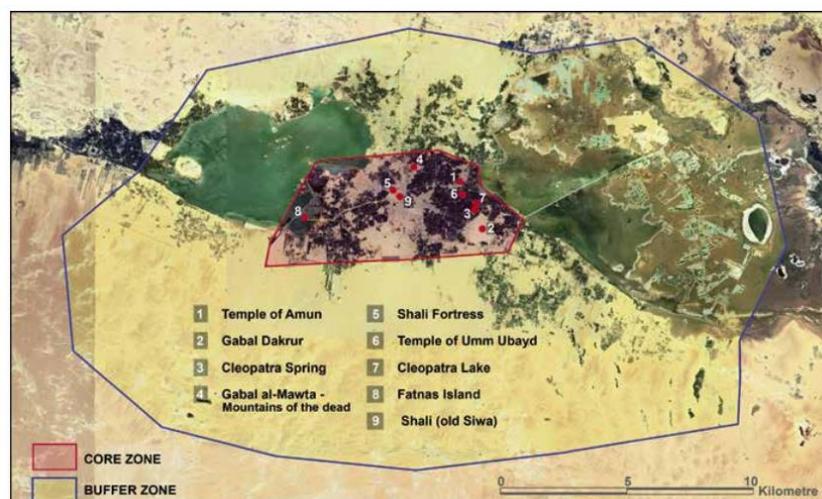


Figure 1: Siwa Archaeological Area, Core Zone – Buffer Zone. Source: (Hamrouni, & Amer, 2021).

The natural and cultural features of the site are related to Siwa Oasis. The oasis is a depression in the Western Desert that is part of the Sahara geographic regions. The depression is west-east oriented. It is 100 kilometers long and 50 kilometers wide, with a total area of 3400 km². The depression's borders reach elevations of 150-200 m, while its center is 18 m below sea level. The climatic condition is arid continental. The oasis has several natural lakes and springs. To the south of the oasis, sand dunes dominate the landscape. These dunes form the edge of the so-called Great Sand Sea (AbdelMaksoud et al., 2019). As for the population. Siwa has a population of about 29,809 people (Central Agency for Public Mobilization and Statistics, 2017) most of them are of tribes of Amazigh Berber origins, which are Zenayen, Lahmoudat, Haddadin, sons of Mussa, Aghormi, Gawasis, Sharamta, Sarahneh, Maraqi, Shahayim, Gara and Shehibat (Aldumairy, 2016). As a result of the community Berber features, the history of the Oasis and its isolation, Siwa has a remarkable cultural heritage of distinctive customs and traditions, tools, handicrafts, clothes, foods, language, rites, festivals, etc., that are unparalleled in other Egyptian oases (INT.10).

1.2 Historical Background

Diodorus (50.2.263) and Curtius (4.7.21), reported that the plateau was divided into three distinct quarters, each with its own set of walls. The first complex housed the palace; the second housed the temple of the oracle and dwellings of women and children; and the outer quarter contained the guardrooms.

The founding of the temple was the subject of numerous myths. One identifies two priestesses from Thebes who were sold by Phoenicians, one of them in Libya and the other in Greece. Later on, one founded the Temple of the Oracle in Siwa, the other, built the Temple of Zeus at Dodona in Greece (Herodotus, 2.54.1). One other tale attributes the temple's construction to Dionysus. When Dionysus was thirsty and lost in the western desert, he asked his father Zeus-Amen for help. Zeus-Amen sent the ram which guided him to the well of Aghurmi. Therefore, Dionysus constructed the temple out of gratefulness (Norris, 1972). Before Norris, Rollins (1834) claimed that the temple was dedicated by the Ammonians to Ham, son of Noah, who was worshiped as Jupiter Ammon.

Fakhry (1971) believed that Ammon worship was first introduced to Siwa during the Eighteenth Dynasty. According to Kuhlmann (1998), inscriptional evidence from the 26th Dynasty, during the reign of King Amasis, 570–521 BC, demonstrates that a monumental stone sanctuary was devoted to Ammon on the hill of Aghurmi, whereas, Jackson (2002) thought that the Oracle's origin is much older, might be before or around the 21st Dynasty.

By the beginning of the 26th Dynasty, the Oracle of Ammon in Siwa was already well-known throughout the Mediterranean region, as an oracle of Zeus-Ammon and later of Jupiter-Ammon (El-Sayed, 2021). Probably, people from Cyrenaica, who were familiar with the region due to caravan route, were the first Greeks to visit the sanctuary. They called the god Zeus-Ammon (Livius, 2011). There is a theory that the name's origins due to the fact that the Greeks of Cyrene identified the god of the Oracle in Siwa, with their own god Zeus, and they called him Zeus-Amon, from the Greek word ἄμμος, sand, hence the Greeks called him Sandy Zeus (Lendering, 2020; Ermatinger, 2022).

The most notable event in the temple's history occurred in 331 BC when Alexander the Great, along with a considerable group of friends and soldiers, including Callisthenes, the historian, visited the temple to consult its oracle. According to Strabo (17.1.43), Callisthenes stated that Alexander was adventurous of the splendor of going to visit the oracle since he knew Perseus and Hercules had previously performed the same journey. It is true that Alexander the Great has been the Oracle's most well-known visitor, yet there were others, according to legend.

In 550 B.C, Croesus, the king of Lydia, made the decision to examine the wisdom and insights of all the renowned oracles in Greece and Libya by sending envoys to them and asking each to describe in precise detail what Croesus was doing on that particular day in Lydia. The correct answer came only from the oracle of Delphi. Nevertheless, it doesn't appear that this setback affected the oracle's prestige (Jackson, 2002). Only 25 years later, another story appeared related to the oracle of Siwa. The story of the army of Cambyses, the Persian conqueror (525-522 B.C), is mainly one of the most well-known ones in Herodotus' Histories (3.25.3). According to the legend, Cambyses intended to destroy the Oracle of the Ammonian, instead, his entire army, 50,000 soldiers, was lost in the western desert due to a strong south wind. The Ammonian then claimed that Ammon avenged from those who aimed to destroy his temple. This tragic end of Cambyses' army must have increased the oracle's reputation.

The spread of Zeus-Ammon oracle throughout the Greek world was propagated by the poet Pindar (522-445 B.C) (Lendering, 2020). Pindar incorporated the first definite references to Ammon the Oracle in Greek literature (Classen, 1959; Dillon, 2017). He dedicated a poem to praise Zeus Ammon and described him as “*Ἀμμων Ὀλύμπου δέσποτα*”, Ammon Olympus Master. Pindar sent his hymn to the Ammonian of the oasis which later engraved on a triangular stele (Symeonoglou, 2014). Pausanias, who visited Siwa in 160 A.D observed this stele on site. Pausanias also recorded that Pindar offered a cult statue by the sculptor Calamis in the same sanctuary (Pausanias, 9.16.1).

Cimon is the first Athenian who consulted the oracle around 450 B.C during the time of his last campaign in Cyprus (Classen, 1959). He sent his envoys to Siwa to meet the Oracle who ordered them to leave the oasis right away because Cimon was already there with him. After learning this, the inquirers returned to the camp where they discovered that Cimon was dead (Plut. Cim. 18). When they went back in time and counted the days, they discovered that he died on the same day that Ammon had informed them that Cimon was with the gods. The ancient world became familiar with this tale, and Siwa's oracle emerged as the most credible (Fakhry, 1973).

During the 93rd Olympiad, Eubotas, a famous athlete from Cyrene, asserted that Ammon of Siwa predicted his victory (408 B.C.). Hence, he brought a statue of himself to Olympia. As a result, the champion's statue could be seen on the day of his victory. This incident they didn't forget about it for many years (Lunt, 2022). This incident enhanced Ammon among the Greeks who didn't forget it for many centuries (Fakhry, 1973).

Ammon cult penetrated further to Sparta, as by 403 B.C., Lysander of Sparta besieged the city of "Aphytis" and had just ended the Peloponnesian War that gave Sparta dominance over Greece, the god Ammon appeared to Lysander in a vision and told him that it was better for him to stop the siege of Aphytis (Pausanias, 3.18.3). Subsequently, Lysander ended the siege. Then he ordered the people of the city to build a sanctuary for Zeus-Ammon. Within a few years coins were minted in Aphytis with the head of Zeus-Ammon (Pritchett, 1979). Plutarch (*Lys.* 20.6) tells the same story, but adds, that Lysander managed to make “*the god a pretext*” to visit the Oracle at Siwa (Malkin, 1990). Later, he visited the Oracle for a second time, seeking Ammon support to be the king of Sparta, as the Spartan laws did not allow him to rule, and tried to corrupt the priests who in return refused to assist him.

It seems that the Oracle's prominence started to fade away under Roman rule. Though, Fakhry (1970) asserted that the priests of the oracle kept making offerings to him up to and possibly after the end of the sixth century A.D.

Between the twelfth and thirteenth centuries, the acropolis was transformed into an urban settlement following the decline in the fame of the Oracle (Richardson & Jacobs, 2013). The locals moved from

the vulnerable low areas into the fortified citadel of the Siwan local governors and constructed their new settlement in the style of a Berber Saharan *Qsar*, a fortified town that has one entrance and high walls (Harris, 2018). It was structured using limestone that had been taken from the acropolis's former temples and palaces (Salheen, 2016; Sterry & Mattingly, 2020).

Some of the residents of Aghurmi moved to the area of today's Siwa town in 1203 AD, and began the construction of their new town, which they named "Shali". However, up until the beginning of the 20th century, when several records and explanations of Aghurmi were given, the settlement was still inhabited (Jackson, 2002). As a result, the temple had been covered in mudbrick when it was found.

1.3 History of Interventions

Ahmed Fakhry undertook the main task of clearing the temple of its medieval remains in 1938, 1944 and in 1970s. Before that European travelers attempted to explore the Aghurmi Plateau in the 18th and 19th centuries. There were also brief surveys conducted at the beginning of the 20th century by Steindorff, Stanley and Belgrave (Aldumairy, 2016). During that time, Steindorff (1904) announced that the sanctuary bears the name of Achoris (393-381 BC) of the 29th Dynasty. It was Fakhry who, after cleaning the interior walls of the temple, was able to establish that Amasis (570–526 BC), of the 26th Dynasty, had actually built the temple.

During the 1990s Kuhlmann and his team conducted further several campaigns to undertake critical interventions to preserve the threatened parts of the site.

1.4 Archeological Components

1.4.1 Temple of the Oracle

The Temple of the Oracle's layout adheres to Egyptian architectural standards, but it is relatively smaller (circa 14 x 22 m) with unassuming appearance (Bard, 2005). It consists of a courtyard, a gateway leading to an open hall, a second inner hall, and subsequently the central shrine with rooms along either side (fig. 2). Based on the epigraphic evidence, the earliest part of the temple dates back to the reign of Amasis II of the 26th Dynasty.

Basically, the Oracle temple is one of two dedicated to Ammon in Siwa, the other one is Umm Ubayda, 400 meters a little farther south amid the palm groves. The two temples were once connected by a causeway "*dromos*" which was the processional road of Ammon (Bagnall & Rathbone, 2017).

A number of almost unique features, concerning the temple's structure and location, which have no parallel in ancient Egyptian architecture, enhance the cultural and architectural value of the site. For instance, the Greek building techniques that had been used throughout the temple. Several studies (Fakhry, 1973; Kuhlmann, 1998; Arnold, 1999; Bard, 2005) proved that the Oracle Temple was built by Greeks, probably from Cyrenaica who were attracted to the oasis and its oracle (Plin. Nat. 5.5), as evidenced by some details such as the use of Pseudo-isodomic masonry and the two engaged Doric columns that adorned the façade of the first hall. Besides, the signs of Lewis holes (Kuhlmann, 1998) as well as some signs at the ground observed by the author emphasize that pincers and cranes were used to lift up stone blocks, in contrast to the common practice used by Egyptian craftsmen.

A further distinguishing feature is the temple's placement on a relatively flat-topped plateau that forms a natural acropolis. This is a rare occurrence in the building activity of the ancient Egyptians. Rohl (2012) counted only four Egyptian instances; the shrine of Thoth of the 11th Dynasty which was built atop the highest point in of Western Thebes, the Ptolemaic temple of Petsuchos at Karanis, the last two, the high place at el-Hiba and the Predynastic shrine of Horus at Hierakonpolis are somewhat doubtful.

It is also revealed that the temple was precisely aligned with the rising sun during the equinoxes (DeYoung, 2000). DeYoung proved that the upper window in the outer wall of the western room coincides with the other window in the inner wall of the temple, which allows sunlight to pass through to illuminate the sanctuary of the deity during these two days. In terms of all of the preceding characteristics, the Aghurmi temple is indeed incredibly unusual.

Five shaft tombs so far have been discovered in the bedrock beneath the temple building and in the area around it. Two of them are unmistakably from a time before or during the temple's construction. Mueller et al., (2002) suggested that those tombs were probably the final resting places for members of Siwa's royal family, despite being rather crudely hewn and undecorated. The practice of Late Period burials in the Nile valley is recalled by the burial within the grounds of the temple (Mueller et al., 2002).

The ceilings of those tombs, which are not vaulted but rather flat, have been cracked and distorted in some chambers as a result of the weight of the surrounding walls, causing as well structural damage to the walls of the temple.

1.4.2 The Palace of the Ancient Rulers:

On the report of Diodorus (XVII, 50), the first quarter encloses a palace for the ancient rulers. Next to the temple, at the western edge of the acropolis, there is a kind of an administrative palace featuring a large hall, ruins of limestone walls and corridors.

This is most likely the Diodorus-mentioned palace. This supposition is confirmed by the fact that an underground corridor connects the building's courtyard with the well, possibly to allow servants to obtain water without entering the sacred area (Mueller et al., 2002).

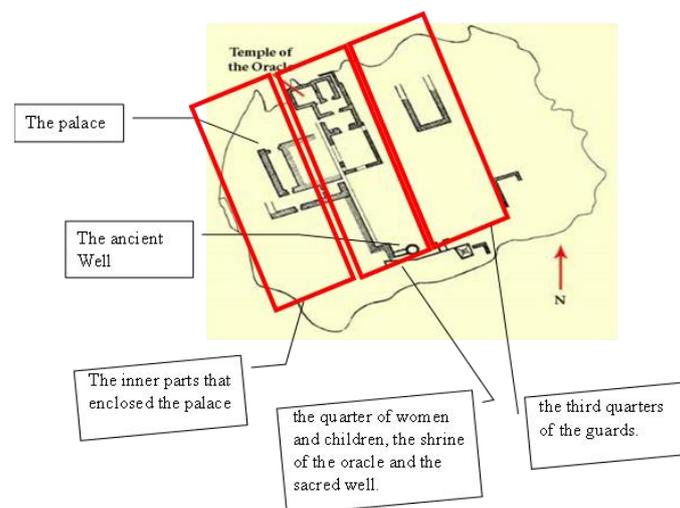


Figure 2: a General plan of the Aghurmi ruins, source: (Dunn, 2011 based on Fakhry, 1972), edited by the Author.

1.4.3 The Sacred well:

The ancient well, that supplied the temple and the residents around it with the necessary water, is in front of the mosque. It has niches which could lead to storage rooms or underground corridors, the entrance to these corridors is currently blocked by debris. It is likely that its water was used during the daily sacred rituals in addition of supplying the residents around it with the necessary water. As shown in (fig.3) the well has a circular shape that narrows towards the bottom; it is constructed of semi-equal blocks of limestone, while the lower part is carved into the rock. The well continued to be used during the Islamic era for sacred purposes as well, but this time for ablution. Two basins were added as well to facilitate ablution before entering the mosque that lies above the well.



Figure 3: The Ancient Well. © Author



Figure 4: The two Basins next to the well. © Author

1.4.4 The Old Village

Between the twelfth and thirteenth centuries, the acropolis was transformed into an urban settlement following the decline in the fame of the Oracle (Richardson & Jacobs, 2013). According to the Siwan Manuscript, Aghurmi (the small village in Amazigh, INT.9) was the first settlement originated in Siwa (Salheen, 2016). The locals moved from the vulnerable low areas into the fortified citadel of the Siwan local governors and constructed their new settlement in the style of a Berber Saharan Ksar, a fortified town that has one entrance and high walls. It was structured using limestone that had been taken from the acropolis's former temples and palaces (Salheen, 2016; Sterry & Mattingly, 2020).

Some of the residents of Aghurmi moved to the area of today's Siwa town in 1203 AD, and began the construction of their new town, which they named "Shali". However, up until the beginning of the 20th century, when several records and explanations of Aghurmi were given, the settlement was still inhabited (Jackson, 2002). As a result, the temple had been covered in mudbrick when it was found in more recent times, leaving little trace of its ancient form.

The village of Aghurmi seems to have been constructed on the typology of the densely fortified desert settlements, *Ksour*, that were being built by the Berber tribes of the Sahara desert (Waines, 2022). These *ksour* were typically built-in mud on high ground for fortification (fig.6). Berbers used to build such settlements as rest stops along ancient trade routes (Salheen, 2016). A Berber *ksar* has some typological characteristics. It has a rectangular shape and is surrounded by high walls strengthened by taller towers (Sterry & Mattingly, 2020). It also has a canyon-like narrow streets, arranged in orthogonal directions. The majority of the dwellings, closely packed tightly together, are of two or three floors, and have a usable flat roof. The enclosure of the village has usually a single entrance that regularly passes beneath public buildings such as the mosque and the bathhouse (Waines, 2022). Salheen (2016) stated that the structure and clustering of this kind of settlements reflect the society's tribal pattern, with the single family serving as its basic unit.

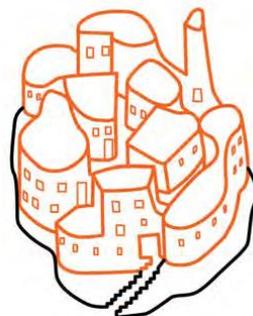


Figure 5: Berber ksar model. Source: (Salheen, 2016, fig. 14).

The framework of the village of Aghurmi, which resembles old Shali, is primarily made of salt-mud (Kerchief), limestone, wood, and dry date seeds. Large blocks of stone from Ammon's temple were occasionally used to support the walls. The ceilings are constructed from palm trunks that have been

covered with rushes and mud. When the high desert plateau's chilly winds blow down in the winter, obviously thickness of the houses' walls keeps them warm, while at the same time this technique helps in cooling during the hot summer months (INT.6).

1.4.5 The Mosque

Ascending a narrow path leads to the doorway of the small fortified village. the entrance has a gate made of palm tree trunks, passing the gate one can see mud benches where the heads of the families were accustomed to sitting during the day to discuss their problems in this cool, shaded setting. The mosque of this village, was constructed over the entrance. Fakhry (1973) confirmed that the mosque was being used up to 10 years before his excavations in the area, but it is no longer in use because a portion of its floor has collapsed.

The mosque is composed of a rectangular area divided into three sections parallel to the Qibla wall by four pillars. These pillars also support the mosque's roof, which is made of palm trunks. In the middle of the Qibla wall is the mihrab. It is a simple, semi-circular "apse" that is plastered in white and is devoid of any writing or decoration.

There are many tiny windows in other walls, for lighting and ventilation. Each window is constructed entirely from the sturdy, old olive tree trunks. The mosque's most significant architectural feature is the minaret, which is situated on the northeastern side. It stands out for its conical shape, which resembles the well-known "Sawmaah" architectural style found in Al-Andalus and Morocco architecture. The mosque's main entrance is located on the same northeastern side.

Another room without columns and without any decorations is located behind the rectangular portion. There is no description of this room or an explanation of its purpose in the references. However, a specialist in Siwa(INT.1) stated that this room served as a sitting area for mosque guests or perhaps as a space reserved for a particular adherent of the four Sunni schools.

Phase 2: Site Assessment and Analysis

2.1 Physical Conditions of the Architectural Structures

Based on preservation report of Mueller and his team (2002), the bedrock in the northernmost cliff's edge, where the temple is situated, has experienced massive losses over time. The lower courses of the masonry and some of the foundations along the north wall of the temple have been severely weakened by erosion. As a matter of fact, the northern wall then split into numerous portions, and all of the masonry started to bend outward. To save the situation the Egyptian Supreme Council of Antiquities with the aid of the German Archaeological Institute in Cairo made the decision to preserve the temple's structure and sustain the building's foundations during the 1990s.

Within the initial audits in 1993–1994, it was decided to immediately preserve the building's critical areas. Subsequently, a temporary strengthening of the northern wall was implemented. Afterwards, the northern, western, and southern walls were enhanced with stainless steel anchors over three campaigns in 1997, 1998, and 1999 (fig.6). Bedrock cracks were partially filled with gunned concrete in 1999. Despite these efforts, it was not possible, for them, as Mueller stated (2002) to restore and maintain the masonry walls of the temple forever, especially since the decomposition in the rock is a permanent process (fig.7). The team concluded that the maintenance work completed would probably allow the temple and the rock to coexist for another hundred or possibly two hundred years.

As for the abandoned mud village of Aghurmi, it is in a very poor state of preservation. Only a few remains of it are left such as; fragments of its large walls and the ruins of some structures and houses that about to collapse.

2.2 Tourism and Visitor Infrastructure

Infrastructure is the set of physical systems and facilities that provide basic public services, such as transportation, water utilities, gas, electricity, power, communications, waste disposal, parks, playgrounds, major and official buildings, and railways (Thacker et al., 2019).

There are many studies that evaluated the infrastructure and tourism services in Siwa in general, and most of them agreed that Siwa suffers from poor infrastructure, especially with regard to roads, transportation and communications (Salem & El-Shimy, 2012; Alhaddad et al., 2017; Attia, 2022). Focusing on the Aghurmi area, all internal roads leading to the site need to be well paved and provided with services. With the exception of some services and shops around Cleopatra's Spring, the site needs to be supported by adjacent tourism services and facilities such as bazaars, food and beverage services, visitor center, acceptable bathrooms, parks, adequate rest places and paths (INT.8). In addition to the researcher's site visits and observations, local tour guides, inspectors, and members of the local community affirmed that there is no structured presentation and interpretation system in the area that can educate visitors about the importance and value of the site and provide them with a rich experience.



Figure 6: Some of the restoration work to complete the walls of the Temple of the Oracle, which were destroyed due to the erosion and weakness of the original limestone walls. ©

Author



Figure 7: Manifestations of erosion and cracking of the Aghurmi rock, which threatens the safety of the temple and other ancient buildings. ©

Author

2.3 Site Significance and Values

Throughout conceptual analyses and stakeholder consultations were used to identify the site values. The following set of values may help in determining the significance of the site;

2.3.1 Religious Value: *The site has a religious value related to the cult of Ammon the Oracle whose fame spread throughout the Hellenistic world and was identified by the Greeks with Zeus and later with Jupiter by the Romans. Ammon gained prominence alongside Apollo's oracles in Delphi and Delos and even Zeus' oracles in Olympia and Dodona, as one of the most prominent oracles in the ancient world, therefore, due to this fame the oasis became a destination for international pilgrims and visitors seeking the consult of the Oracle (Verner, 2013).*

2.3.2 Historical Value: *Stemmed from the site's historical context, starting from the late period, or may be earlier, throughout the Graeco-Roman period, and up until the medieval.*

2.3.3 Archaeological Value: Derived from archaeological structures, other sites surrounding the acropolis, and ruins of urban Kerchief dwellings that provide information about Berber activities in the Oasis over time. The archaeological remains above and beneath land surface serve as a tangible representation and reminder of the interaction between Greek and Egyptian civilizations, as well as physical evidence of the historical significance of the area that once housed the medieval urban settlements of the Berber tribes.

2.3.4 Natural Value: Related to the site's location in Siwa Oasis with its distinguished outstanding ecological system, stunning scenery, palm trees, salt lakes, therapeutic springs and other natural features that are supposed to boost the value of the site.

2.3.5 Commercial Values: Siwa obtained greater commercial importance since the *earliest times*, and from the 7th century B.C on, with the founding of Cyrene in Libya, Siwa acquired much added commercial values (Verner, 2013). It became one of the most important stations on the trans-Saharan trade routes that extended through North Africa from north to south and east to west. These routes were widely traversed by camels' caravans carrying and transporting a wide range of commodities. They also conveyed travelers, including merchants on their way to distant markets, students seeking al-Azhar and pilgrims going to Hajj (Vale, 2014). Most probably the old village of Aghurmi gained special interest as a rest stop along those ancient trade routes.

2.3.6 Rarity Value: The Oracle temple's location and structure have no parallel in ancient Egyptian architecture. Besides, the urban settlements of Aghurmi and Shaly are examples of the most unique and exciting dwelling vernacular heritage. Therefore, it can be emphasized that this archaeological complex is distinct and has no counterpart.

2.3.7 Research Value: Raised from the potential for archaeological finds in the region, which could thoughtfully affect the understanding of Ammon's reputation and his oracular complex along with the layout and function of the mediaeval desert fortress.

For more than 20 years, since the German excavations, the site has existed without any cultural interventions, thus with more scientific research and understanding of the Oracular ceremonies, site's early visitors, the astronomical knowledge of the ancient priests and their daily rituals, and with further explorations in the eastern urban part of the plateau, may reveal other secrets about the Acropolis and revive the international prominence of the oracle.

2.3.8 Social/Symbolic Value: Stemmed from the site's importance to the local community as a tourist resource. In addition, it symbolizes the reference frames of the Bedouin tribes who once inhabited the plateau for centuries.

The site for the local community has a particular significant. The temple is the most important archaeological spot in Siwa. The residential settlements surrounding it are the ruins of the old fortified village, the first capital of the oasis, that once used to protect the ethnic families from Bedouin attacks. The preserved mosque, the well, the basins, the entrance, the gate of the fortress and other remaining features contribute to historical knowledge about the influence of Saharan Berber architecture.

2.3.9 Economic Value: Obtained from visitors' interest in the spot, which prompted the growth of related income activities like tickets sale, cafes, restaurants, bookshop, tourist guides, souvenirs, gift shops, etc.

Due to its extraordinarily rich heritage and stunning natural scenery, Siwa is a popular tourist destination in Western Desert. As one of the most important archaeological sites in Siwa Archeological area, Aghurmi can be a remarkable cultural area offering valuable information about the mysteries of the oracle and the heritage of the Oasis. With a precise conservation planning, site presentation and interpretation, and the enhancement of tourists' programs, this archaeological site can be a great place for tourists to gain new knowledge. To promote the site economic values, it is critical to put the direct experience into more systematic and programmatic consideration.

2.3.10 Education Value: Related to the site's potential for educating audience of all ages and the ability for disseminating new knowledge using a range of educational policies and strategies.

2.4 The Management Context

2.4.1 Legal Framework

At the international level, all countries seek to put in place laws, legislation and policies aimed at protecting heritage. Over the past years, governments in all countries have taken a number of

important steps towards preserving cultural heritage by introducing Comprehensive and systematic legislative provisions and the adoption of special laws for the protection and development of its own tangible and intangible heritage.

The Egyptian laws that govern the protection and preservation of antiquities and Egypt's built heritage are Laws No. 178/1961, No. 117/1983, No. 144/2006, and No. 119/2008 (Osman, 2018). Law No. 117 of 1983 was enacted with its successive amendments, in 2010 and 2018, to achieve the necessary legal concepts for the protection of Egyptian antiquities and heritage, as well as to be the first deterrent to theft and smuggling of antiquities and illegal digging operations. The law covers the concept of antiquity (Article 1) its ownership, protection and the values that must be preserved (Article 2). The Supreme Council of Antiquities, in accordance with Article 5 of this law, has the right to manage these antiquities, whether in museums, warehouses, archaeological sites, above or below the surface of the earth, or under the Egyptian territorial waters. Law No. 178 of 1961 protects buildings of historical importance and architectural value. The demolition licenses are regulated by Law No. 144 of 2006, which is concerned with protecting properties of recognized architectural significance (Fahmy, 2013). In summary, the Acropolis as a part of Siwa Archeological area is under supervision of the Supreme Council of Antiquities which is the Egyptian governmental body in charge of overseeing the country's cultural heritage; its safety, management, protection, preservation, display, documentation, research, and media representation.

2.4.2 Key Stakeholders

Stakeholders are those (people or organizations) who will participate actively in the management plan or whose interests may be impacted positively or negatively by what is going to occur at the site (Li et al., 2020). Consequently, the site's stakeholder groups should comprise the following as shown in table.2;

Table 2: Key Stakeholders Groups of the Site

Public Sector	Private Sector	International Organizations
<ul style="list-style-type: none"> • Ministry of Tourism and Antiquities • Supreme Council of Antiquities • Tourism Development Authority • Ministry Of Environment • Ministry of Culture. • Ministry of Housing, Utilities, and Urban Communities • Ministry of Local Development • Matrouh Governorate • National Organization for Urban Harmony • The National Center for Documentation of Cultural and Natural Heritage (CultNat) • Matrouh University 	<ul style="list-style-type: none"> • Tribal Sheikhs • Businessmen and Investors • Entrepreneurs • Siwan Association for Tourism Services • Local Residents • Association of Environment Preservation • Owners of Echo-Hotels • Tourists. • Tourism Agencies. • Researchers and Scholars 	<ul style="list-style-type: none"> • UNESCO • ICCROM

2.4.3 The SWOT Analysis

SWOT is a simple method that can be used for managing archeological heritage sites. The analyses demonstrate the need for coordinated efforts with the goals of exploiting opportunities by employing and enhancing strengths, as well as reducing or preventing threats and addressing weaknesses (Della Spina, 2021).

Processes followed in Phases 1 and 2 along with the conducted interviews and open discussions with about 20 residents of the local community, provide the essential information for

recognizing Strengths, Weaknesses, Opportunities and Threats that must be taken into account to suggest the strategies and responses intended to preserve the site and its cultural significance.

Table 3: The SWOT analysis of the site which considers both internal (Strength/Weakness) and external (Opportunities/Threats) factors.

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. The temple of Ammon the oracle is the only remaining structure where it is still possible to virtually follow in the steps of alexander the great. 2. The temple's structure and location, have no parallel in ancient Egyptian architecture 3. Ammon Siwa's reputation that spread throughout the Mediterranean, and the numerous stories about his consultations. 4. The urban settlement of Aghurmi, as same as Shaly, is example of the most distinctive and exciting dwelling vernacular heritage. 5. Cultural values and heritage significance of the site. 6. The site fulfills the world heritage requirements for authenticity. 7. The proximity of the Acropolis to the current village of Aghurmi allows visitors to interact with the locals and learn about the oasis' customs and traditions. 	<ol style="list-style-type: none"> 1. Poor condition of the site. 2. Previous poor interventions. 3. Insufficient presentation and interpretation system 4. Site carrying capacity is not evaluated 5. There is no adopted formal strategy for conserving the site and exploiting it for tourism 6. Issues concerning on-site visitor facilities and services. 7. The site is neglected. Since 1990s no scientific excavations have been conducted. 8. Untrained personnel 9. Lack of up-to-date recording and documentation of site conditions. 10. The salty nature of the materials used in building the Temple and the surrounding structures. 11. Graffiti and vandalism
Opportunities	Threats
<ol style="list-style-type: none"> 1. Presidency's interest in developing Siwa. 2. Siwa archaeological area is supposed to meet the criteria for inscription on the world heritage list. 3. The local individuals positively support the development of cultural tourism. 4. Trends of tourism towards cultural sites 5. Stunning natural landscape that surrounds the area. 6. The vital role of the local community in preserving their tangible and intangible cultural heritage 7. Strategies adopted by the government to support infrastructure and roads, particularly in remote areas such as Siwa 8. Egypt vision 2030 that promotes cultural tourism 9. The government's interest in preserving the cultural and natural heritage 10. Rich folkloric culture of the oasis 	<ol style="list-style-type: none"> 1. The survival of the temple and the medieval settlements are structurally threatened by the collapse of the Aghurmi rock. 2. Erosion 3. The growth of many contemporary concrete constructions at the base of the plateau which don't fit with the oasis' distinctive heritage pattern. 4. The interaction of irresponsible visitors threatens the integrity and sustainability of the temple blocks 5. Surface and ground water. 6. The majority of tour guides in the oasis are local residents who neither have a tour guide license nor formal training. 7. Financing issues 8. The oasis's spatial distance from urbanization centers 9. Transportation and road issues 10. Poor advertising and marketing by officials 11. Poor infrastructure, limited facilities and services in the oasis.

	12.lack of awareness of site’s heritage values and significances. 13.Access to the site. 14.Insufficient integration and collaboration among the various sectors.
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Commentary: Table 3 shows that, despite site’s strengths that distinguish it from other archaeological sites in Egypt and opportunities that it can benefit from, it suffers from many weaknesses and threats that would negatively impact its condition and prevent it from being added to the World Heritage List. In other words, the number of factors of weakness (11) and threats (14) to factors of strengths (7) and opportunities (10) indicate the necessity to adopt an immediate extensive and strategic response to safeguard the site, preserve its cultural and historical values and transfer them to future generations. Besides, the response is mandatory as long as in case of the continuous deterioration, the site will never be inscribed on the world heritage list.

Phase 3: Site Management Planning

This phase represents the pinnacle of the planning process. At this point, responses are made based on assessments of conditions, significance and the management context including the SWOT Analyses. It is the time when the safeguarding of values must be weighed against any circumstances and management constraints. Dimas (2013) identified three levels of response, which are intended to be a hierarchy of decisions, starting with defining the overall vision and guiding principles; moving on to setting objectives; and ending with determining strategies that provide the methods of implementation. **Based on this hierarchy the supposed response will be as follow:**

3.1 Vision

Conserve, present, and interpret Aghurmi Acropolis and its surrounding area as a valuable cultural and historical spot that integrates with the environment and the community while being supported by tourism facilities and services.

3.2 Aims of the Management Plan

3.2.1. Improve the Safety and Stability of the Aghurmi Rock

The assessment phase indicates that the safety and survival of the temple and other settlements are structurally threatened by the collapse of the Aghurmi rock. Therefore, immediate intervention is required to sustain the rock.

3.2.2. Document and Record the ongoing Condition of the Site

The auditability of interventions and their ongoing review in light of new scientific discoveries will be ensured by precise, regular, and accessible documentation.

3.2.3. Conserve the Archaeological Heritage.

In order to preserve the values of the entire site with its physical and natural contexts, the temple and other buildings on the rock will be conserved in their context, structure, and material, while recognizing their authenticity, integrity and sustainability. Site conservation and restoration will focus on tackling both human and natural threats, as well as ensuring minimal impact of interventions.

3.2.4. Reshape the Surrounding Buildings and Remove Current Distortions

Maintain the distinctive heritage architectural style of Siwa Oasis by emphasizing the implementation of a strategy of covering the exteriors of any building made of brick and cement, especially those urban structures scattered around the Aghurmi rock, with the Kerchief layers, as well as preventing construction that violates the heritage identity, and punishing offenders.

3.2.5. Enhance Tourism/Visitor Facilities and infrastructure in Accordance with Heritage Pattern

The site as a complex is a unique spot that needs facilities and services appropriate to its fame. In order to bring visitor facilities and services up to the necessary standards, they should be upgraded and improved according to the heritage pattern of the oasis.

3.2.6. Improve Presentation and Interpretation Methods

A thorough understanding of the site's cultural and natural values should be promoted through interpretation, presentation, and marketing. Tourism and communication strategies must fulfil the expectations and needs of visitors while reducing the negative effects of visits on site preservation. To ensure the highest standards of interpretation and visitation, authorities and other beneficiaries should cooperate and integrate.

3.2.7. Support Researches and Excavations

Given the lack of work at the site, precise structured scientific researches and excavations are required to reinforce values of the entire site and uncover what may lie beneath.

Launch investigations and ensure that their outcomes are widely accessible.

3.2.8. Strengthening Capacity Building

Confirm that the skills of the site staff, members of the local community dealing with tourism directly or indirectly and local tour guides are continually improved through the appropriate trainings on subjects relevant to their work and duties.

3.2.9. Promote Awareness, Education and Community Engagement

Actively involve the community in the action plan for the preservation of the site, improve the understanding of the site's cultural significance, increase awareness of heritage preservation and proper visitor behavior and educate new generation how to respect and safeguard their heritage.

3.3 The Action Plan/Strategies

Strategies represent the most extensive stage of planning, defining how the goal will be accomplished and set up the resources needed, timeframe, and responsibilities to complete each task (Johnson et al., (2020). Based on the vision and aims presented above, the table below (table.4) incorporates a sequence of strategies and particular actions necessary to accomplish each aim within a 5-year time frame. These strategies also define responsibilities, monitoring indicators, and means of financing, whether national or international or through fund-raising activities such as targeted visits, ceremonies and interpretation activities

Aim	Outcomes	Monitoring Indicators	Activities	Responsible	Partners	Funding	Priority	Duration	
								1-2 years	3-5 years
Improve the Safety and Stability of the Aghurmi Rock	Rock Stability	Reduction of the weakness and cracking of the rock	Maintain cracking parts. Strengthening the internal of the rock to reinforce rock stability	Ministry of Environment	Geologists, Ecologists.	Ministry of Environment	High	√	
Document and Record the ongoing Condition of the Site	Periodic accessible documents, databases, photographs, and drawings that illustrate each part of the site.	Recording reports before, throughout and after any interventions	Implement high level techniques to document the site in its current condition. Record any intervention. Record and document the site after conservation and restoration processes.	Supreme Council of Antiquities Ministry of Tourism and Antiquities The National Center for Documentation of Cultural and Natural Heritage (CultNat)	Academics Technicians Local community	International funded projects.	High		√
Conserve the Archaeological Heritage	Preservation and restoration of the temple reconstruction of the palace adaptive reuse of the old village	Condition of the temple and other buildings	Maintain and restore walls of the temple Remove the soot in the shrine Reconstruct the old palace Rehabilitate the old village.	Supreme Council of Antiquities	ICCROM Academic researchers Engineers	National funding	High		√
Reshape the Surrounding Buildings and Remove Current Distortions	Preserving the urban heritage of the Oasis, which represents a distinct feature.	Lack of urban distortions	Restoring the aesthetic values of the nearby urban structures, and ensuring that they are in harmony with the Oasis heritage style. Preventing construction that violates architectural traditions.	Ministry of Housing, Utilities, and Urban Communities National Organization for Urban Harmony	Local community Artists	Ministry of Housing, Utilities, and Urban Communities Fundraising activities	Low		√

Aim	Outcomes	Monitoring Indicators	Activities	Responsible	Partners	Funding	Priority	Duration	
								1-2 years	3-5 years
				Matrouh Governorate		Community initiatives			
Enhance Tourism/Visitor Facilities and Infrastructure in Accordance with Heritage Pattern	<p>Availability of on-site visitor facilities</p> <p>Availability of off-site visitor facilities</p> <p>Suitable infrastructure</p>	<p>Adjacent and acceptable park, restaurants/cafes, shops, craft workshop, toilets, visitor center, etc.</p> <p>Paths for visitors to the site are being, cleaned, levelled and identified.</p>	<p>Establishing the necessary tourism infrastructure</p> <p>Cleaning, preparing and signaling paths.</p>	<p>Ministry of Tourism and Antiquities</p> <p>Tourism Development Authority</p> <p>Ministry of Local Development</p> <p>Ministry Of Investment</p>	<p>Owners of echo-hotels in the oasis</p> <p>Entrepreneurs</p> <p>Local community</p>	<p>Entrepreneurs</p> <p>Creative Industries</p> <p>Investors</p> <p>Tourist Agencies</p>	High	√	
Improve Presentation and Interpretation Methods	<p>Rich visitor experience.</p> <p>Display of replicas of previously excavated artifacts in their actual location.</p> <p>Generating funds to support Management Processes</p>	<p>Existence of a signage system.</p> <p>Number of interpretation activities</p> <p>Visitors feed back</p> <p>Site revenue</p> <p>Visitor flows</p>	<p>Implement an on-site signage system</p> <p>Display replicas of previously discovered artifacts in their original locations.</p> <p>Conduct interpretations activities such as: historical events simulating Alexander's procession, ritual ceremonies, and storytelling activities.</p> <p>Conduct studies to determine the capacity</p>	<p>Site staff</p> <p>Ministry of Tourism and Antiquities</p> <p>Tourism Development Authority</p> <p>Ministry of Culture.</p>	<p>Academics</p> <p>Artists</p> <p>Local community</p>	<p>National funding</p> <p>Fundraising activities</p> <p>Community initiatives</p>	Medium		√

Table.4: The Proposed Action Plan									
Aim	Outcomes	Monitoring Indicators	Activities	Responsible	Partners	Funding	Priority	Duration	
								1-2 years	3-5 years
			of the site and set the most convenient strategies for managing visitor flows in a way that does not threaten sit's safety.						
Support Researches and Excavations	Published scientific researches. New recovered artifacts. Deeper understanding and appreciation to the site	Number of declared and accessible reports. New discoveries. Visitor behavior assessment reports .	Determine the further archaeological potency of the site and its surroundings through a complete archaeological survey of the area, extending it to the buffer zone and even beyond. Encourage academic institutions and research centers to conduct excavations and researches at the area. Establishing a research center to conduct investigations and studies on the region and to educate the local community and visitors of the oasis.	Ministry of Tourism and Antiquities Matrouh University			High		√
Strengthening Capacity Building	Well trained staff. Reducing the overdependence on external professionals as sources of experiences, tools, and solutions.	Number of workshops and number of training programs Participants feedback.	Train the beneficiaries on the following: World Heritage charts and regulations. Conserving cultural and natural heritage. New trends in the field of heritage management.	Ministry of Tourism and Antiquities Ministry of Culture. Ministry of Local Development	UNESCO ICCROM	International funded projects. National Authorities	Medium	√	

Aim	Outcomes	Monitoring Indicators	Activities	Responsible	Partners	Funding	Priority	Duration	
								1-2 years	3-5 years
	Good performance improvement		Risk management. Enhance the capabilities of specialists and technical staff by providing appropriate training for their duties. Train local tour guides principles of tourism guidance and improve their languages.						
Promote Awareness, Education and Community Engagement	Establishment of an educational center. Local community's active participation in preserving their cultural heritage.	Number of awareness and educational raising initiatives. Community feedback.	Rehabilitate a part at the base of the plateau to serve as an educational center for astronomy, stargazing, meditation, yoga and developing traditional industries. Conduct seminars and workshops to raise community awareness of the importance of heritage and ways to protect it. Involve community members in the implementation of activities and projects related to the protection of their cultural heritage.	Ministry of Tourism and Antiquities Tourism Development Authority Ministry of Local Development Matrouh University	Academics, Professionals, Local community	Fundraising activities Community initiatives	Medium		√

Conclusions

The condition of the Acropolis of Aghurmi in general is disappointing. Local authorities neglect the area, its settings are deteriorating and lacking basic facilities and official tourism services. Due to the lack of governmental supervision, residents erected illegal structures despite the general rules governing urban harmony around the site. On the other hand, in the absence of immediate intervention, it is likely that the Aghurmi plateau and all of its historical, cultural, and architectural treasures will be lost forever during the upcoming decades.

Moreover, the entire archaeological area of Siwa, that is on the Tentative List, is still controlled in the absence of a monitoring management system, which might prevent its inclusion in the World Heritage List. Therefore, this study attempted to determine the planning process, strategies, monitoring indications and timeframe actions required to develop an efficient management guideline for the Acropolis, while contributing to the applicability of this plan to other sites in the region. The proposed guideline was developed through three phases. The initial phase involved gathering information about the site's description and historical context. In the second phase, the researcher used the collected primary data to assess the site's condition and values, then formed a SWOT analysis to identify the current constraints and opportunities. The determination of the plan's vision and objectives, as well as the suggestion of a strategy for achieving the goals, comprised the final output.

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