The Master Plan for Wadi El Deir, Sinai Egypt: Research and Interventions

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1. The Site
St Catherine’s Monastery at South Sinai, which lies in the middle of the valley named Wadi El-Deir, is a UNESCO nominated World Heritage Site of Egypt (2002). Not only the monumental complex of the Monastery, but also the site of Jebel Musa (Holy Summit) and the surrounding area of 641 km² demarcated by the “ring dyke” are considered part of the associated historic and natural landscape with great significance.

The Monastery’s buildings date from the fourth and sixth centuries onwards, with continuous life and building activity through the middle ages till today. The great structures sponsored by emperor Justinian during the mid sixth century, such as the fortress walls, the five ailed basilica in the centre of the enclosure, chapels, substructures and the three ailed basilica on Jebel Musa are well preserved. Through the ages the Monastery has accumulated numerous religious treasures resulting in the formation of one of the world’s most important libraries, a unique collection of Byzantine and post Byzantine icons and a rich Sacristy.

The Wadi that is about 3,600 m. long and up to 500 m. wide a significant number of historic (Nabatean, Byzantine and Islamic) and contemporary small scale structures and buildings are preserved, most of which are located along its south bank.

Although this famous site receives large numbers of pilgrims and visitors from all around the world (over 400,000 during the year 2008), it lacks systematic
maintenance and conservation, while it is threatened by various forces related to uncontrolled development, caused mainly by tourism and improper land use at its broader environment. Therefore site management planning has been emerging as a critical element not only for the preservation and conservation of this place, but also to address issues such as future sustainable development.

The Monastery has about 80-100 permanent residents of which thirty are monks of the Greek Orthodox doctrine and the rest are the working personnel (mainly Bedouin). Within the precincts of the Monastery in the guest rooms and the hostel up to 120 pilgrims can be accommodated. Numerous people work here: military, police, government officials, merchants, Bedouin camel drivers, taxi and bus drivers, peddlers, etc. During peak seasons there could be over four thousand visitors entering the Monastery and strolling along the valley. About one fourth of them climb the mountain to the Holy Summit of Jebel Musa. Transportation of visitors requires an average of twenty five to thirty tourist buses per day, which could exceed in some occasions even fifty, plus the private cars and desert trucks. From the figures mentioned one could understand that this site receives great pressure and is heavily used, while there are growing threats to the cultural and archaeological heritage and the fragile natural environment. With the efforts of the Governorate of South Sinai, the Police, the Municipality of St. Katherine, and the Monastery, a safe and basically functional visit without serious problems quantitatively is provided to visitors, which unfortunately suffers qualitatively.

One could easily recognize and record dangers to the site from the natural environment, such as flash floods, earthquakes, landslides, draughts, etc. On contrary dangers caused by man to the environment could have been prevented or controlled (i.e. traumas to the landscape, over consumption and pumping of under-ground water, lack of solid waste and wastewater management, expanding surface for development, natural water flow in the wadi blocked with debris and structures, illegal construction by the Bedouin, etc.). One should also mention one more serious danger for both locals and visitor, which is terrorism, due to the recent general political instability and the unrest in Egypt and the Middle-East.

2. Research and Studies

In order to meet the requirements set by ICOMOS during the site’s nomination as a World Heritage Site, the Monastery organized a project under the title: “Restoration and Protection of Monuments and Environment at St. Catherine’s Monastery and the Summit of Jebel Musa”, financed mainly by the E.U. through the South Sinai Regional Development Programme. This gave the opportunity for the preparation of extent surveys, re-search and studies to take place for the first time: topographic, geological, hydrological, geotechnical, ar-chaeological, architectural, structural, conservation etc. These were the basis of the final document which was the Master Plan for the management and upgrading of the site, completed in 2009. This was also the basis for the restoration and construction activities of the SSRDP project for the following two years. The Master Plan also intends to provide a sound basis for
future actions and the management of this unique site.
A team from various scientific disciplines contributed to this project. They worked under the project management of Dr. G. Triantafyllidis. The main contractors for the surveys and studies were Hyperion SA (Athens) and Perfect Construction & Consultants (Cairo). Associate Professor Petros Koufopoulos was the scientific advisor and coordinator of the surveys, studies, and the restoration works that were undertaken. Most of the consultants and specialists were from the University of Patras in Greece (Prof. S. Mamaloukos, Prof. P. Koufopoulos, P. Panayiotopoulos along with several students) and the University of Cairo (Prof. Sherif Murad, Prof. Hesham Hafez, Prof. Reda H. El Damk, Dr. Ashraf H. Ghanem, Dr. M.I. El- Anbaawy, and Fathy Ahmed). The design team included also specialized architects and engineers (M. Myriantheos, K. Skaris, K. Kaskamba, S. Paraskevopoulos, K. Lagos, M. Manteli, K. Karaiskos, P. Kokkinakis, P. Kryfos, T. Chatzitheodorou), conservators (A. Galanou, Y. Dogani), an architectural historian (M. Myriantheos) and an archaeologist (N. Fyssas). For their contribution and help on-site, from the Monastery, His Eminence Archbishop Damianos, f. Porphyrios, f. John, f. Daniel and N. Vadis should be acknowledged. Special mention should be made for the advice provided by the director of the Department of Islamic & Coptic Antiquities of South Sinai Tarrek Naggar and the director of the St. Katherine Protectorate Dr. Mohamed Kotb.
The documentation and evaluation of the present situation provided new original knowledge of this site and for the first time full scale measured surveys of the valley and all historic and contemporary structures in Wadi El-Deir and on the Summit. The reports from all the specialties formed the basis for the composition of the Master Plan. The basic aims of its proposals were at first to comply with recommendations submitted by ICOMOS to the World Heritage Committee of UNESCO when the Monastery was inscribed on the World Heritage List. Secondly to reach the final fulfilment of the Visitor Management Plan that was prepared and partly implemented by the Egyptian Environmental Affairs Agency - St. Katherine Protectorate Management Unit. Next, is to preserve through conservation and restoration, according to the international charters and conventions, the monuments, the historic buildings and the envi-
ronment within the protected area and espe-cially in the Wadi. To protect the Monastery and the visitors from possible natural and man-caused disasters (earthquakes, landslides, floods, fire, etc.) and cure the traumas caused by manmade interventions to the historic landscape. To improve drastically the visitor facilities that lie within the Wadi and make the historic site much more comprehensible and pleasant to all (reconfiguration of existing buildings, removal of incom-patible structures, design of new facilities, provide a net-work of paths, place orientation signs, create obser-vation points, etc). Finally to propose the creation of a new broader buffer zone with extended boundaries and additional protected areas.

The basic objective of the Master Plan was the creation of the ‘Wadi el Deir Archaeological Park’, that would provide both protection and conservation to the architectural heritage within the historic and natural land-scape and an integrated Site Management Plan for the proposed thematic park. It should meet international standards for the substructures and visitor facilities that need to be of a contemporary design. The archaeo-logical park is expected to present in a comprehensible/didactic manner all types of historic monastic habita-tion that existed in the valley; i.e. hermit caves and single cells, small building complexes, settlements and the great imperial Justinian fortress as the centre of the whole. It will also be combined with significant pre-Christian Nabatean and Islamic antiquities. This will be achieved mainly through the following actions:

a. Remove vehicle circulation and the parking areas from inside the wadi to its boarders near the Visitor Centre site,
b. Remove all the shop buildings and most of the commercial activity out of the wadi close to the new park-ing site,
c. Demolish all incompatible buildings. This will give the opportunity to restore some of the damages to the landscape, reduce noise, pollution and remove undesired activities,
d. Present the unknown archaeological ruins in a more comprehensible man-ner to the general public, after their restoration,
e. Increase the number of the visitor’s attractions in the valley, other than the Monastery, such as the Visitor Centre, exhibition on the Archaeology of the
Site, several archaeological digs, the Nabatean towers, the hermitages, the Monastery garden, in order to encourage a longer stay in the region,
f. Provide proposals for sustainable development through small scale new construction work at the entrance of the wadi (visitor facilities) that will be friendlier to the environment and hopefully it will be a good example to the local community,
g. Take measures to protect the Monastery and the visitors from possible natural and man-caused disasters (earthquakes, floods, fire, terrorist attack, etc.), and,
h. Propose promotion activities at national and international level, encouraging a more cautious, respectful and meaningful approach to the site and a longer stay of a substantial percentage of the visitors in St Cath-erine’s.

The interventions proposed by the Master Plan were divided in six areas of action:
The first area is Jebel Musa and the routes that lead to the Holy Summit. Here important restoration work took place during 2008 along with the improvement of paths and sitting paces for the visitors around the Chapel and the Mosque on top. There are still issues that have to be faced, such as, the possibility of fencing the summit and control access to it, in order to keep the site safe and clean, stop further development and the continual building of coffee shops by the Bedouin.
The second area is the part of the Wadi that lies to the east of the Monastery and extends to Jebel Munayja. Here the proposed interventions are limited to the conservation to the paths that lead to Jebel Musa, stressing the need to keep them simple and remove the short cuts created by the visitors and restore the natural landscape, improve the presentation of the archaeological dig by the University of Athens of the settlement that housed hermits during the pre-Justinian era and the guards and builders of Justinian later, and make it accessible and more comprehensible to visitors, improve the east garden, re-move all new construction made by Bedouin around the camel station.
The third zone is the Monastery and its garden. In 1997 a detailed programme for the conservation of the fortress complex was prepared and is gradually underway with the limited funds available. For the garden the present Master Plan proposes limited changes that are related basically to visitor management, circulation, insuring privacy for the monastic community and improvement of the existing building stock. Some essential demolitions and locations for future extensions are proposed.
The fourth zone is the present Control point area extending from the chain (“selsela”) to the west end of the Abash Pasha complex. From here the parking and all commercial activities will be completely removed and most incompatible structures will be demolished or reformed. It is proposed to keep the police stations here in order to have a final control of the entrance to the Monastery’s precincts, restore the landscape along the south bank of the river bed after the demolition of the Bedouin shops and the removal of the parking, partly restore the Abash Pasha Barracks to make them more comprehensible to the public, construct a small building in order to house in it offices for the
The fifth zone, which is the West Wadi, will receive minimal interventions with the exception of the relocation of the main access road and the removal of the asphalt tarmac at least from the traditional Bedouin cemetery to the chain. The network of paths will be extended to allow access to hermitages, observatory points with picturesque views and explanatory plates, lime and brick kilns, chapels, a hermitage with a cave, a Nabatean tower that will be restored to show everyday life in the pre-Christian era, a Bedouin ruined settlements, the 6th century quarries, Jebel Musa etc. At the Bedouin cemetery several structures should be restored and the gardens of Mikro and Megalo Manna should be revived. A police control point will possibly be placed at the present roundabout in order to prevent unauthorized from entering the wadi from the wrong gate.

The last zone is the Visitor Centre area where most of the activities from the Control point will be moved to.
Here the parking plot is adequate in size and easily accessible and controlled. It will be improved and pavements and gutters will provide proper circulation, bus, shuttle and taxi stops will be formed. From here the new main road to the Monastery will start running through the passage that divides the hill of Aaron form Je-bel Deir and drains the Wadi. Here the new shops will be constructed in a design that has references to vernacular architecture and will use traditional techniques and all commercial activities will be out of the valley. This will be the new entrance to the World Heritage Site, reviving the original route that was abandoned thirty years ago.

3. The interventions
The project gave the opportunity to the Monastery to undertake some pilot restoration and remodelling projects that were studied during the first year and received approval from the authorities, in time for their implementation. The first activities took place during 2008 on the monuments of Jebel Musa and the paths that lead to the Summit. Here over 300 granite blocks of the sixth century basilica were restored over the original foundations revealing the plan of the building, preventing further destruction of the ruins and providing additional surface for visitors to circulate. The medieval mosque was restored while repairs and improvement of paths, toilets and sitting places for the visitors took place.

In the wadi the remodelling of the so called “villa complex” was completed in order to accommodate the Hellenic Archaeological Mission at South Sinai office ad stores.

Urgent restoration works took place at the Justinian fortified enclosure of the Monastery, mainly to the east and north post Byzantine annexes on top of the wall. Also pointing with specially designed mortars took place to the massive medieval buttresses that support the walls. In the historic gardens some parts of the fencing walls were restored, along with the small Kallistos hut. The two chapels of Prophet Aaron and Saint Theodore were restored while three large water reservoirs were repaired and put again to use.

Concluding this master plan had a long term visualization, and provided simultaneously some short-term actions that were undertaken within the fra-

Perspective images of the proposed remodelling of the existing building of shops and its conversion to a small museum and the new complex of Bedouin shops that should be built with rammed earth and timber
mework of the South Sinai Regional Development Programme. It is expected to have benefits for the local community, such as the increase of job opportunities for the Bedouin and other Egyptians, training and education, improvement of living and working conditions, having finally a positive impact to the lives of the Sinai people. It should also be an example for sustainable development. The stakeholders are looking forward for its finance and implementation considering this project as a prospect for the people that face serious financial problems caused by both the recent unrest and political instability in Egypt, along with the economic crisis in Greece and Europe.

References