## HOW TO MANAGE AND ENHANCE ARCHEOLOGY AND LANDSCAPE AT THE ROYAL MAUSOLEUM OF MAURETANIA (TIPASA, ALGERIA)

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#### ABSTRACT:

Archaeological site and landscape are two interdependent and sometimes merged notions. The first should be taken into consideration to achieve coherent territorial planning that reveals and preserves the character and identity of a setting, while the second should be respected, protected and promoted in responsible projects of management and enhancement of archaeological sites. Dynamics of landscape transformations should closely consider the archaeological sites thereof and regard them as ingredients to emphasize rather than impediments to surmount. On the other hand, landscape should be conceived as valuable asset and a resource for archaeological heritage development. Based on these views, this paper develops a reflection on how the enhancement of both Archaeology and Landscape can be combined in the case of the Royal Mausoleum of Mauretania set in the city of Tipasa, Algeria. It highlights the Tomb's architectural and archaeological significance as well as the ecological, natural, symbolic and emotional values of its exceptional landscape. It proposes a specific strategy to conceive and develop this vestige in harmony with its landscape.

#### 1. INTRODUCTION

This paper is a contribution to the topic of the enhancement and management of archaeological sites, particularly World Heritage Sites, and addresses a specific case - the Royal Mausoleum of Mauretania. It is a one-of-a-kind funerary monument also called 'The Tomb of the Christian Woman,' or 'Qeber er-Roumîa' in Arabic (Gsell, 1926, p. 144) and (Blas De Roblès, Sintes, 2003, p. 73). It is located on a hill of the Algiers Sahel, in the municipality of Sidi Rached at eleven kilometres South-East of the city of Tipasa. It is classified as a historic monument on the list of 1900, appears on 'the March 31, 1959 list of classified historic monuments' and is, since 1982, part of the 'World Heritage' together with two archaeological parks located in the city-centre of Tipasa.

Over the territory of the Royal Mausoleum of Tipasa, archaeology and landscape emerge today as spatial structures that stand for many different values. Some are intrinsic to the object itself, resulting from its objective and material reality; others are extrinsic, an effect of a subjective reality that springs from the representations and interpretations that we can make of the monument and its environment. These values appear not only 'as heritage values' but also as 'values of the cultural landscape' (Chennaoui, 2007, p. 361). Our concern with them here can be summarised in the following three queries:

- 1. What typical characteristics and attributes of the Royal Mausoleum of Mauretania allow these two sets of values?
- 2. What would their representativeness be in the project of its protection and enhancement?
- 3. Finally, how can they be simultaneously integrated in one management strategy?

Based on our thorough knowledge of the Mausoleum and of evaluations of its state of conservation, and on our awareness of the state of the management and enhancement initiatives on its subject, we thought it can be of interest to carry out this reflection, though it can be perceived as only a provisional step towards a definitive solution to the problem of the management of this monument<sup>2</sup>. Thus, our purpose is to define strategic objectives, illustrated by concrete actions, which can allow combining the management and enhancement of the Monument and its landscape, both natural and cultural.

Our method is the following: 'content analysis' of several documents, namely the congruent legal and regulative documentation and archaeological, geographic and anthropological literature, 'in-situ observation', and 'targeted interviewing' members of the OGEBC (National Office for the Management and Exploitation of Protected Cultural Heritage) and representatives of the relevant local administration such as the directorates of culture, of tourism and crafts, town planning and construction, and the forests. In addition, to codify the strong relationships between the management of the mausoleum and its larger global context, and be able to work on it, we adopted the *Integrated Territorial Approach* highly recommended by the DELTA guide (2002-2005).

#### 2. KNOWLEDGE OF THE OBJECT OF THE STUDY AND IDENTIFICATION OF ITS VALUES

There is no doubt that this massive edifice is meant as a funeral monument – a 'tomb'. Its overall architectural structure is made of the superposition of three essential parts (Figure 1): a

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This name is a result of misinterpretation of cross-shaped mouldings which decorate its false doors. It is taken from a book of the Emperor Charles Quint in which he notes that the tomb is that of the daughter of Count Julien who had been seduced by the king of the Visigoths.

The final solution would be the establishment of a management plan for the Mausoleum, as required by UNESCO, in Decision 31 COM 7B of 2013, 39COM 7B.47 of 2015 and 41COM 7B.74 of 2017. See https://whc.unesco.org/en/list/193.

'moulded base' over which is positioned a 'huge cylinder' high with 13 rows and furnished with 60 engaged columns, which, in turn, is surmounted with a 'cone' (with 37 steps), a very imposing one, that gives the monument the shape of a 'haystack' or a 'colossal beehive'. At the top of this 32.40 meters high cone, there is a platform supporting an ornamental element, probably a pyramid or a sculpted group (Coarelli, Thébert, 1988, p. 765). The whole structure rests on a square platform of 63 meters per side, whose angles have disappeared.



Figure 1. Restitution of the Mausoleum according to J.-C. Golvin, (Blas De Roblès, Sintes, 2003, p. 73).

### 2.1 Interpretation of the Monument: Mysteries, Doubts and Contradictions

This monument is of great interest for the architectural and stylistic contradictions that it presents (Gsell, 1926, p.159) but also for the various mythical and symbolic representations of it.

To start with, Berbrügger (1867) and Rakob (1979) note that the mausoleum belongs to the Numidian architectural tradition, given its resemblance to the tomb of Massinissa (called 'The Madracen') in Batna, and that of Kharoub, near Constantine, in North-East Algeria, which dates back to 105 B.C. Chennaoui (2010, p. 215-230), for example, confirms this. However, he reveals some aspects of multicultural influence; some of its features bring to mind the Paranoiac-Egyptian tradition (e.g. the full-stepped cone, the door frames and the cornice with moulded throats) and the Hellenistic-Greek one (e.g. the ionic columns, the crampons of the stones blocks).

Secondly, the tomb's only entrance, which is very small, almost invisible, and devoid of any decoration, presents an obvious contrast with the monumental and elaborately decorated false doors pitted against what looks like 'a heap of stones'. Gsell (1926, p. 151) argues that the reason for this is not merely to deceive thieves, but 'to assure a serene rest to the deceased, prevent them from disturbance, protect them from any damages that time, men and wild animals could cause'. It was buckled with a slide slab in the way of the chapels of the Egyptian tumuli (Berbrügger, 1867).

Besides, this small opening offers another contrast with the large interior gallery (150m long, 2m wide and 2.40m high). The latter is probably meant for funeral celebrations since the atmosphere inside inspires the kind of piety and respect with which the living used to pay tribute to the dead (Gsell, 1926, p. 152). The gallery leads to two vaults set at the centre of the monument, whose function is not clear. Berbrügger (1867) claims that they are burial chambers meant to host sarcophagi. However, the narrowness of the corridor which leads to the central chamber (1.25 meters high

and 0.83 to 1 meter wide) makes introduction of any sarcophagi into it difficult. And so it has been suggested that they are urns meant to receive cremation remains since the practice of cremation was common among Numidians and Mauretanians. Nevertheless, several researchers wonder if the actual burial place would not be the much larger spaces in the tomb's flanks, or in the basement of its central part, precisely at the bottom of a well with an untouched opening (Gsell, 1926, p. 153).

In the absence of funerary objects and chronological clues that can indicate the time of its construction, the tomb's dating remains doubted and difficult to pinpoint. Ancient writers and travellers locate it between 12 BC and 40 AD. Burburgger (1867) and other historians date it back to the Numidian king Juba II and his wife Cleopatra Selene. However, nothing seems to confirm this hypothesis. In fact, Rakob (1979), referring himself to other sources, affirm that King Juba II himself attributed the monument to his predecessors, King Bochus the Elder (105 BC) or King Bochus the Younger (see also Coarelli, Thébert (1988, p. 766) and Bouchenaki (1979)).

In terms of the legends built around it, they are numerous. The main one is that of a treasure buried under this 'mountain of stones' which, in the mythology of the native people, is invigilated by a fairy called 'Halloula'. Gsell (1926) recorded two additional stories: that of a shepherd who, having followed one of his cows inside the edifice, became one of the wealthiest lords of the country, and that of an old Spanish wizard, who set his Arab slave free in reward for her burial of a magic paper in the sepulchre. After the obedience of this person, gold coins flew from the tomb to join the magician in Spain. For her part, a Moroccan sorceress composes a magic recipe to find the treasure. Another legend is the presence of moaning ghosts and giant mosquitoes around the tomb that dissuade treasure seekers from approaching it (Blas De Roblès, Sintes, 2003, p. 74).

Finally, it is noteworthy that this fantasy about the existence of a treasure was at the origin of an attack by an Ottoman ruler of the Regency of Algiers, the Pacha Sala Reïs, who bombarded it in the XVI century. Two centuries later, a Dey ordered the dismantling of the lead studs that joined its blocks to make bullets out of the substance, causing adhesion between the blocks to weaken, and the tomb has indeed partially collapsed as a result. And, definitely, the Royal Mausoleum of Tipasa continues to be a gigantic mystery and its enigmas persist.

### 2.2 The Mausoleum in its Landscape: Sustainability, Beauty and Diversity

The mausoleum is located on the coast of the western part of the Algiers Sahel, which corresponds to a plio-quarterly anticline uprising which stretches along the coast (Saoudi, 1989). The Tipasa Sahel is only a part of this mountain complex, and it is on its summit platform, at an altitude of 264 meters, that the monument stands.

This very particular position within its geographical framework, added to the absence of any obstacles on the site, gives it a considerable measure of monumentality. Thus it offers, from several angles, visual breakaways with scenic qualities of a heritage value. The royal mausoleum of Tipasa is perfectly visible from the RN11 national road, the CW 40 provincial road, the marine terrace of the North Slope, and even from the open sea, where it still serves as a point of reference for navigators. The natural, aesthetic and scenic value of the sepulchre is invaluable, it is dramatised by the morphological and tectonic characteristics of the natural environment in which it is set, which is highly diversified. The place is made of a

complex assortment of soils noticeable by their different geological forms and different topographies (Saoudi, 1989): first, there is the coast with its rocky coves, then, some 180 meters higher, there is a marine terrace covered with a limoclay formation of a faded red on top of which comes the plateau of the mausoleum. On the South-facing side, the slopes are typically steep, sometimes exceeding 20%. The result is a scenic backdrop with stunning panoramic views - on the sea and Mount Chenoua on the one hand, and on a huge, gorgeous mosaic of cultivated land on the Mitidja plain, the mountains of the 'Atlas Blidéen' and the hinterland on the other.

This geographic framework has provided the conditions for the development of a diversified vegetative cover. There are four main types of flora (Chennaoui, 2007, p. 267):

- Aleppo-pine woods on the Northern slope: dense forests on the mausoleum plateau.
- 2.Marquis on the Southern slope: made of small forests with trees of various species (broom, juniper and cactus), and other vegetation (often with medicinal virtues) such as myrtle, heather, fennel, dill and daisies.
- 3. Eucalyptuses on the sides of the RN 11 national road leading to the mausoleum (planted for their soil-drying and air-cleaning virtues).
- 4. Arboriculture on the North Slope: with a great diversity of fruit trees and vegetable crops.

The land is divided into, and is exploited as, individual or collective farms. The system practiced is mostly the intensive one, which is recommended in the case of sub-littoral plains. These facts justify identification of the mausoleum's environment as an 'agro-ecological' zone. Its climate is Mediterranean, and, because the site is sheltered by the 'Atlas Blidéen', it is generally milder compared to the climate of Algiers. The average rainfall rate (400 mm to 600 mm) is slightly higher than that of Tipasa city-centre due to the effect of altitude. Temperatures vary between 10 C and 20 C in winters; in summer they are sensibly cooler than the usually high seasonal average temperatures in the region, due to sea breezes. These climatic conditions and vegetation conditioned numerous and varied ornithological species (swallows, goldfinches, robins, and other nocturnal birds such as owls), several types of insects (butterflies and wasps) and other wildlife species (wild boars, jackals, hares and turtles). Such wildlife enriches even more the natural context of the mausoleum.

In a nutshell, the 'heritage significance' of the site can only be grasped through the aforementioned characteristics as a unit. They define its O.U.V, on the one hand, and determine its symbolic significance and the emotional charges that it inspires to the community on the other [see, the criteria three (iii) and four (iv) at https://whc.unesco.org/en/list/193, and CPM /ICOMOS (2017, 5)]. Those ecological characteristics, agrarian culture, particular fauna and flora, combined with values of historical heritage (archaeological, architectural and aesthetic) give the monument a very high degree of permanence and the quality of a witness on a 'true', authentic culture.

Indeed, it is the preservation of this 'heritage significance' that continues to make the beauty of the place and to ensure the perpetuation of its material and immaterial worth.

#### 3. DIAGNOSIS AND EVALUATION

### 3.1 An Emblematic but Fragile Site: How about the Preservation and Enhancement Initiatives

About the current state of conservation and enhancement of the mausoleum and its landscape, our 'in situ observations' allowed us to identify the following indicators of its vulnerability. They are of natural, human and managerial nature:

- 1.Many of its stones have been removed. Some are scattered around the vestige. Unconscious of their value, visitors often use them as benches to sit and eat on, and to take photographs.
- 2.In addition, bushes and shrubs have grown between the stone blocks. These growths gradually degrade the vestige and destroy its materials. Rainwater and humidity are other major deteriorating agents (Figure 2). The maintenance and weeding operations that the OGEBC agents carry out twice a year (on April and October) lack scientific foundation, expertise and equipment.
- 3.No strengthening works, consolidation or restoration of the vestige have been undertaken for several decades though significant disorder and other damages caused by earthquakes in particular are apparent. The latter significant operations of restoration of this type were carried out by M. Christofle between 1913 and 1948.
- 4.Also noteworthy is the impact of an anthropogenic use of the monument: people can climb to the top to take pictures, engrave names and signatures on the stones, pollute and deteriorate the natural environment with all kind of waste, and illegally graze.



Figure 2. The vulnerability of mausoleum stones under the effect of destructive growths, rain-water and air pollution, © Aoudia.Benali L., 2018.

From a legal and regulatory standpoint, the mausoleum is recognized as an archaeological site and as a distinct category of 'cultural property' by the Algerian Law No 98-04 relating to the 'protection of the nation's cultural heritage' and protected by the 'Protection and Enhancement Plan of Archaeological Sites' (PPMVSA) defined in article 30. At a more general level, the site is part of the coastal strip which is also protected by several Algerian laws, including the Law No 01-20 relating to 'territory management and sustainable development', the Law No 03-01 relating to 'the sustainable development of tourism', and the Law No 02-02 bearing 'the protection and the enhancement of the coastline which makes a provision in its article No 9 which prohibits 'to harm the natural state of the coastline' 'which must

be protected, used and enhanced according to its vocation'. In concrete terms, however, the protection and promotion of this heritage claimed and defended by these laws, is little ineffective.

Sensitization and vulgarization actions are undertaken by the various bodies concerned with heritage management so that citizens can reclaim this historic heritage. In our specific case, the means used for that purpose ex-situ are varied: website, advertising posters, academic publications and even paintings. But, in situ, action is limited: didactic and instructive tools are precarious and insufficient; practically all there are miniprospectuses available in French only and are sometimes unavailable on the site, whereas the main demand for information is in Arabic or English. The monument has been closed since 1992 for security reasons, namely its protection against possible terrorist attacks, and no effective initiative for an effective relaunching of scientific and touristic activity on the site. A lighting project aiming at the illumination of the interior of the mausoleum and at the enhancement of its external night-view is carried out however, we propose to rethink it. The raison is because the exterior lighting as it is conceived affects the integrity of the landscape and, concerning the interior, the projected installation is not adapted to the inner architecture.

In terms of touristic promotion, there is a considerable gap between the site and its territorial context that can be seen in lack of actions aiming at the formulation of a 'quality threshold' by improving and diversifying cultural offer and touristic infrastructures to do with the site (Chennaoui, 2007, p. 242). The only existing services are a private-owned cafeteria-restaurant shop and a parking area both practicing exceedingly high prices. An official proposition of constitution of a global tourist circuit that highlights several cultural and environmental spots and assets in the context of the Mausoleum, as part of in the 'Master Plan for the Development of Tourism', SDAT 2025 (see CNERU, 2017, p. 70), though interesting in view of its integrated approach, is slow to come.

### **3.2** The PPMVSA: Responses to Problems or Problematic Response

The Tipasa PPMVSA, which is an official document approved in 2012, has attempted to provide responses to the abovementioned problems. It includes two plans: an archaeological resources conservation plan and a land-use/land-enhancement one (CNERU, 2009; Aoudia Benali, 2017, p. 175). But only the proposals of the first are able to be implemented at the mausoleum: for example, maintenance operations, fencing work, installation of firehydrants, the equipment of the site with an adequate lighting system, and the development of thematic routes of a museographic character. In the environment of the site, this plan proposes the landscaping treatment of the crossroads and the section of the road that leads to the monument, as well as the development of the forest which borders the site from the South. Despite their relevance, these proposals are scattered, partial and disconnected. They are not sufficiently pinpointed and the relations between them have not been defined (Aoudia Benali, 2017, p. 175). It is excellent that this plan has succeeded to readjust the limits of the Mausoleum bufferzone to the monument's advantage, exceeding the geometric criterion of 300 meters defined by earlier regulation, namely the ordinance No 67-281. That increases the area of overall property of the classified site at an 11 ha 82 Ca 20, as shown in Figure 3. Nevertheless, the solutions proposed in this plan are bent on the architectural characteristics of the built element and much less so on its landscape setting. Its effectiveness is limited since it does not respond to a broad and comprehensive development conception and project.

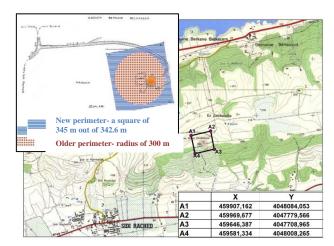


Figure 3. The limits of the Mausoleum Buffer Zone, (PPMVSA, 2009).

Thus, despite the interest given to the promotion and protection of the site by the various authorities and partners concerned by it, the problem of the absence of an integrated management of the site remains unaddressed. Our case study should be considered as an archaeological and landscape resource with many different values that should be taken in charge within elaborate managerial processes (Aoudia Benali, 2017).

# 4. TOWARDS AN INTEGRATED ENHANCEMENT STRATEGY COMBINING ARCHEOLOGY AND LANDSCAPE: SOME KEY ELEMENTS OF RESPONSE

Our investigation allows the definition of three strategic objectives in view of a durable management and proper enhancement of the Royal Mausoleum of Mauritania.

### 4.1 Preserve, Conserve and Protect the Monument but also its Global Context

Conservation is a crucial field for the proper management of the monument. The theme designates 'all the measures implemented to maintain the integrity of the remains not only in their physical dimension but also in their meanings and values in order to transmit them efficiently to the public' (Aoudia Benali, 2008, p. 125). Four key actions should be part of the mausoleum conservation plan.

- 1.Improve the fence, currently being implemented, and endow it with new surveillance posts and a working detection system with infrared. The thermal cameras at the 'Villa Romana Del Casallee', for example, designed to multiply protection barriers, could be an inspiration.
- 2.Establish new diagnoses with the purpose of setting up a risk-prevention map based on the analysis of the individual vulnerability of the mausoleum itself and its associated territorial risks. It is highly recommended and urgent to study the possibility to replace the fallen stones, to proscribe the climbing of the monument, and to mark up a visit circuit.
- 3.Define a protocol for verifying the condition of the monument and it site using modern prospecting technology such as the LiDaR (Laser Detection and Ranging) tool, to identify the tracks, the natural runoff lines, areas of erosion, landslides, new constructions and installations, vegetation density,... This can even allow the discovery of possible unnoticed nearby archaeological structures.

- 4. Reinforce the staff 'in situ' in number, training and material, for a more scientific maintenance of the vestige and its environment. Dupont (2011, p. 134-146) examines a wide range of protective devices to minimize damage cause by water and the effect of humidity on ancient materials. Among his recommendations, the following are relevant in our case:
  - Water-repellent treatment of structures: internally through the injection of water-repellent solutions; externally with a waterproofing surface treatment.
  - The use of discrete peripheral drains along the square base of the tomb which converge to a single collector.
  - The use of anti-contamination geo-textile felt material, as is done in the case of the 'Imus Pyrenaeus', or absorbent gravel – such as pouzzolane (realised at 'Montarium') to protect the circulation paths.

### 4.2 Reconciling Humans and Culture: When will the Monument be reopened to the Public

The Ename Charter (ICOMOS, 2007) in its Article 25 recognizes that interpretation and presentation of the cultural heritage facilitates access to the public, it provided its cultural contexts are respected. Making the mausoleum readable and intelligible is to ensure both its physical and symbolic accessibility.

For achieve this, two major actions are required. The first is the rehabilitation of the building located inside the mausoleum area and its exploitation as a centre of interpretation and reception of the public. This requires the undertaking of a work of restoration of the existing building, which is an average condition (Figure 4) and the creation of an extension of a reversible architecture, including a reception area, a ticket offices, toilets, and a mausoleum shop.



Figure 4. The current state of the building 'in-situ' to be converted into an interpretation centre,

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Currently, some interpretation boards exist inside and they are in acceptable condition. They will have to be exposed to the general public, in the garden of the centre for instance. It would be interesting to devote a room to reproduction, by means of infography, of themes related to the mausoleum such as the revival of scenes from its construction3 or funeral and burial practices in its time. Infographics of the 'island of Bayets' presented in a Roman-culture room at the MARQ site museum can serve as a model for this (see Doménech et al., 2005, p. 137–157). It would also be an excellent idea to devote a small room to a short 'welcome audio-visual presentation' (10 to 15) which will be made from the virtual restitution of the monument. This scan was made in 2018 using a 3D scanner (FARO type) by the Fleischmann consultancy firm on request of the DEV (Service and Operations Management)/OGEBC. It provides all the measurements of the monument in millimetre accuracy and allows generating specific views or even crosssections with very high precision, a precious data for researchers and students (in archaeology, architecture, and engineering).

Thus, this study confirms the following formulation by Gonzalez Méndez (1997-1998, p. 289-230): 'El vestigio como atracción del turismo, la interpretación como atracción del vestigio' ('The vestige as a touristic attraction; interpretation as the vestige's attractiveness').

The second urgent action is the re-opening of the monument to the public. During the celebrations of the Heritage month on May 25, 2019, the OGEBC 'exceptionally' reopened the mausoleum to the public; for memory, that was more than 25 years after its closure. This event, animated on the site with a concert of Andalusian music, another key element of the immaterial heritage of the region, has been happily welcomed by the visitors who seemed excited and experienced 'a feeling of admiration and stupefaction mixed with pride' as one of them declared to us. Y. Lalmas (DEV/OGEBC) vaguely affirmed to us that the definitive reopening of the mausoleum remains dependent on the conclusions of a study which is currently taking place and on the instigation of the necessary security conditions. In fact, in addition to the urgency of undertaking consolidation and maintenance operations at the monument (Figure 5 for more detail about its current state), this project also advocates reflection on an effective 'musealization' of its gallery and burial chambers, and the adoption of a visitor-flow management scheme that is respectful of the 'limits of acceptable change' (LAC); that is to say a working plan which determines the number of visitors per round of visit, the duration of visits, and the daily load capacity, including on busy periods, is equally needed<sup>4</sup>.

These two actions concretely illustrate the anthropological and communicational approach of the 'heritagization' of the Mausoleum since they are in agreement with the 'triple semiotic shift' theory determined by Davallon (2010, p. 52-57), namely: 1) from the authenticity of the object to the authenticity of the visitor's experience, a visitor who will feel in immediate contact with the 'true' culture of the country; 2) from the notion of identity to that of 'reflexitivity' achieved through new methods of dissemination and promotional activities; and 3) from the apprehension of heritage as gift to an economics of exchange with the financial gain induced by it

Respectively: the extraction of stone blocks, the modes and techniques of transportation, the pruning methods and the lifting and installation system. These are all very well described by Chennaoui (2010).

<sup>&</sup>lt;sup>4</sup> For example, in August 2016 alone, 13 347 persons visited the monument (statistics of the Museum of Tipasa).





Figure 5. Views of the interior of the Mausoleum, a. the circular gallery, b. the funeral chambers without any contents © Belkacemi Zebda D., 2018.

### 4.3 Supporting and Managing Durably the Relationships: 'Monument /Site' and 'Site / Landscape'

We insist, here, on the necessity to preserve 'the structure and systemic organization of the territory' (DELTA Project, 2002-2005, p. 117) through the guarantee of: 1) the quality and integrity of the landscape of the site and its surroundings; 2) a functioning adapted to visitors and tourists; 3) the ecological mobility from outside and inside the site, and finally 4) practical public spaces with high quality capable of enhancing the site attractiveness (Aoudia Benali, 2018, p. 157).

**4.3.1 The Landscape Project on a Broad Scale: Let's Work on the 'Site/Landscape' Relationships:** The establishment of a landscape charter of the Mausoleum and its natural context as a system of management concretely defining the responsibilities and the tasks to be accomplished will allow not only the preservation of the monument but also the control of landscape transformations and future evolution dynamics of its environment. It aims, among other things, to:

- Protect the fauna and flora through encouragement of intensive agricultural farms, the use of water from wells, and the regulation of hunting. Around the mausoleum, the allocation of land for tourism development projects requires very serious study.
- 2. Preserve the views. It should be realised that sight is a cognitive act which 'proves to be a function of discovery and intellectual conquest' (Chennaoui, 2007), and that the visual integrity of landscape is a crucial principle when it comes to the preservation of the O.U.V of World Heritage sites (CPM/ICOMOS/ICCROM/IUCN,2013, p. 2; and Ringbeck, 2008, p. 22). In our case, we recommend the development of

the two large open spaces juxtaposing the monument into landscape contemplation lookouts (Figure 6). Among other suitable adjustments, we recommend studied designing and installation of balustrades, planters, lawn, an adapted type of pavement, benches, a table of orientation, and a telescope to allow admiration of the far stretching landscape.





Figure 6. Panoramic views from the site, a. on the sea and Mount Chenoua, b. on the Mitidja plain, the 'plateau Blideen' and the hinterland, © Aoudia.Benali L., 2018.

- 3. These two belvederes are powerful moments for that can create visual and spatial complicity between the vestige and the surrounding ecologies. The whole can acquire the status of 'festive landscape' if it is adequately used for events such as musical concerts, sports competitions, outdoor theatre and entertainment, marketing events, culinary contests, ...
- 4. Ensure sustainable mobility: establish an efficient plan of public transportation to and from the Mausoleum (with eco-tourist shuttle-buses) connected to the site Museum near the Western park in Tipasa city-centre. The encouragement of cycling and hiking through the creation of greenways, trails and cycling paths around the site is also highly recommended.
- **4.3.2 The Landscape Project and the Monument/Site Relationships:** It is most convenient to reconceive and manage the surrounding area of the Mausoleum as a park and think of the latter as an integral part of its natural environment. In this regard it is important to act to address a number of problems which prevent this integration. Some action can include:
  - The Creation of an open-air reserve using the stones scattered between the two lookouts and exhibition of the decorated ones and those bearing the mason's marks in the visit circuit.
  - 2. The Rehabilitation of the image as well as the built structure of the security brigade, currently abandoned, and

- its transformation into a centre of healing and well-being or into a 'green residence' (to provide customers with the attractive quality services to do with wellbeing, relaxation, comfort and positive energy using natural methods).
- 3. The control and regulation of the souvenir commerce activity (the small traders activating at the entrance to the mausoleum). An element of solution can be to help these traders to move to the museum shops and the interpretation centre, and control the type and quality of their products.

To enhance and manage the site's abundant vegetation, (including various types of plants and flowers with pleasant colours and scents) which is inseparable from the identity of the monument and gives the site a luxuriant and colourful character (Figure 7), we recommend, again, its treatment as a large garden.



Figure 7. The natural environment around the Mausoleum, © Aoudia.Benali L., 2018.

First we suggest that collaboration between the directorate of forest and that of the culture be made effective over the site's management (some of their joint action can be a better treatment of the trees, the decorative treatment of the vegetation, and the determination of the best strategies and means of fighting against major risks). Professional landscapers out to be associate in the task; they will help create circulation spaces using vegetation, propose plant species to be introduced in planters and cultivate and entertain gardens in specific areas.

Second, from the first lookout (mentioned previously), it would be interesting to arrange a wooden ramp that will facilitate access to the picnic area below. To the west, the site is endowed with a space which can very suitably be used for the cultivation of traditional plant varieties with shallow roots (specific medicinal and aromatic plants highly appreciated locally)<sup>5</sup>, and, by the same token, the creation of small agricultural cooperatives for unemployed young people, or they can be used like educational farms.

As for waste management, regular cleaning of the site and the installation of garbage cans in suitable places, especially in the picnic areas, is necessary. We suggest the use of functionally and aesthetically well-conceived, preferably wooden, trash cans with a selective sorting system. There is also a need to establish a working plan whose aim is raise the visitors' civic awareness on the site (a functional system of informative posters and panels for example).

#### 5. CONCLUSION

It follows that the Royal Mausoleum of Tipasa is a genuine patrimonial place and monument with a remarkable immaterial dimension as is demonstrated by the symbolic, mythological and spiritual aspects associate to it as noted above. Its environment is a stunningly beautiful, extremely diverse and luxurious landscape which must be preserved.

We have attempted to orient actions on the site in a way that can ensure its use for the socio-cultural and economic development of the community without losing sight of the challenge of the preservation of the monument itself but also of its landscape, for future generations. Thus, the strategic objectives formulated in this study concern two main fields of action, Archaeology and Landscape, but fields as numerous and varied as such as technology, education, communication, tourism and human development are inevitably involved. Based on this investigation, the actions that we recommend can be encapsulated in three major projects:

- A project of conservation and consolidation of the monument, followed by protective activities and regular maintenance of the mausoleum itself, of its environment and its accessibility infrastructure.
- 2. A 'museographic' project for the interpretation of the monument and its reopening to the public, based on the rehabilitation of already existing structure into a reception interpretation centre, as well as the design of two visit routes: one in interior to the gallery and the vaults and another one outside, around the monument.
- 3. A landscape management and development project that includes both the immediate and general environment of the monument. It can be supported by the establishment of a landscape chart whose main objectives will be: enhancing and monitoring the evolution of the landscape of the mausoleum (the fauna and flora), the preservation of its viewing-perspectives and panoramic views, and the establishment of the conditions for the development of ecotourism allowing the mobility of visitors to and from the mausoleum and the surrounding areas.

If the monument has kept a considerable measure of its authenticity and integrity so far it is because the restoration operations that took place in the past were subordinated to its archaeological science and have been considerate of the successive contributions of time. That is also because the monument underwent relatively minor deteriorations, ones that have not significantly affected its main architectural and construction characteristics. However, our study has highlighted factors of vulnerability and some managing difficulties of the monument, its site and it landscape. These problems should not be neglected and that we highly recommend addressing them most seriously and urgently.

Provincial and national authorities should work to overcome their difficulties to set up the conditions for the development of processes of integration and decisional co-operation. It is an established fact that dynamism mostly depends on the way things are done (Aoudia Benali, 2018, p. 99). Which is why, as recommended by the 19th ICOMOS General Assembly (ICOMOS, New Delhi, 2017, p. 7), it is necessary to define an integrated management plan which will includes a financing actions plan, the actors involved, phasing, implementation schedules and, last but not least, a workforce plan that will strengthen the skills that are active at the Mausoleum.

(where 44 plant species from the Roman era have been reproduced and came to be documented in the gardens of the site) (Aquilué, 2005, quoted by Aquilué and Tremoleda, 2011, 51).

<sup>&</sup>lt;sup>5</sup> As in the example of Joya de Ceren in El Salvador where more than 80 cocoa trees have been planted (after seeds from this variety have been discovered in the old structures) and the example of Empúries in Spain

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