UNESCO World Heritage Centre – ICOMOS – IUCN

REPORT ON THE JOINT WORLD HERITAGE CENTRE-ICOMOS-IUCN REACTIVE MONITORING MISSION TO WADI RUM PROTECTED AREA, JORDAN FROM 27 APRIL TO 1 MAY 2014



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LIST OF ACRONYMS

ASEZA Agaba Special Economic Zone Authority

BC Before Christ

DoA Department of Antiquities

EIA Environmental Impact Assessment

GEF Global Environment Facility
GIS Geographic Information System
GPS Global Positioning System

HEADS Human Evolution: Adaptations, Dispersals and Social

Developments

HIA Heritage Impact Assessment

ICCROM International Centre for the Study of the Preservation and

Restoration of Cultural Property

ICOMOS International Council on Monuments and Sites IUCN International Union for Conservation of Nature

IUCN-ROWA IUCN Regional Office for West Asia

MEGA-Jordan Middle Eastern Geodatabase for Antiquities – Jordan

MoE Ministry of Environment

MoU Memorandum of Understanding
MTA Ministry of Tourism and Antiquities
NGO Non-Governmental Organization

Heritage Convention

OUV Outstanding Universal Value

PA Protected Area

RSCN Royal Society for the Conservation of Nature SOUV Statement of Outstanding Universal Value

The 2003 Convention 2003 UNESCO Convention for the Safeguarding of the

Intangible Cultural Heritage

UNDP United Nations Development Programme

UNESCO United Nations Educational, Scientific and Cultural Organization

USAID United States Agency for International Development

WRPA Wadi Rum Protected Area

ACKNOWLEDGEMENTS

The mission acknowledges gratefully the warm welcome of the authorities of Jordan, the site management team of the World Heritage property and the different institutions, including the Commissioner for Environment and Health Control at the Aqaba Special Economic Zone Authority (ASEZA), the Director General of the Department of Antiquities (DoA) and his staff and the Director for Nature Protection at the Ministry for the Environment and his team, both institutions in charge of the implementation of the World Heritage Convention.

The mission appreciated the extensive information provided by these authorities and the site management team in response to the Decisions of the World Heritage Committee. The mission also appreciatively acknowledges the time and availability of local community representatives, different organizations and NGOs including the Royal Society for the Conservation of Nature (RSCN). The mission expresses special thanks to Mr Saleh Alnoimat, Head of the Conservation Department in Wadi Rum and to the UNESCO Amman Office for greatly facilitating the work.

EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS

The mission notes that the World Heritage area is a complex desert ecosystem with continuous extraordinary interaction between people and their environment since prehistory. This led to a unique mixed site and cultural landscape recognized and inscribed on the World Heritage List by the World Heritage Committee in 2011. The mission acknowledges that the World Heritage property of Wadi Rum Protected Area is not under serious threat and that the overall state of conservation of the site remains satisfactory. However, the mission concluded that a number of recommendations made at the time of the inscription still need to be implemented as a matter of urgency and that the overall governance for this mixed World Heritage site needs to be strengthened to mitigate potential threats due to its fragility and potential increase in tourism and visitation.

The mission noted that the development of a cultural heritage database has not occurred, which is a crucial requirement to enable integrated monitoring of the property's cultural and natural values. The mission was made aware of the use of MEGA Jordan (based at the Getty Conservation Institute in Los Angeles, USA). The MEGA Jordan database does not seem to appear to be suitable for the purpose of monitoring the property, as it is a national database covering multiple sites and the State Party should not rely on a database beyond its jurisdiction.

The mission recalls that the site was inscribed under criterion (iii) for its exceptional rock art that comprises close to 25,000 petroglyphs, 20,000 inscriptions and 154 archaeological sites. The state of conservation of these cannot be assessed until a survey has been carried out. Sites with high visitation such as Alameleh and Anfaishiyya Inscriptions or Burrah Canyon are particularly vulnerable, and the mission found no evidence of any conservation measures being implemented at those sites. The mission visited the Nabatean Temple near Rum Village evidencing permanent settlement at the time, as an example of an archaeological site (excavation completed by a French team in 1997); however no overview of the 154 locations was presented to the mission team. The temple site was conserved but not maintained and interpretation was lacking. The mission was informed about archaeological excavations by French and American teams but was not shown any and was not able to assess these. A visit to "Lawrence House" (named after T.E. Lawrence who stayed there in 1917) was also made; although there are questions on authenticity, this site should be interpreted for visitors as an example of the long history of exploration of the area. Original rock art on the stones reused for the house also require analysis and interpretation.

The mission met with relevant stakeholders and noted a lack of coordination between the cultural and natural heritage departments as well as between regional and national institutions. It was informed that a Memorandum of Understanding (MoU 2014-2016) had been prepared between the Ministry of Tourism and Antiquities/ Department of Antiquities (DoA) and the Aqaba Special Economic Zone Authority (ASEZA) and was ready for signature in May 2014. The mission noted the increase in staff at site management level from 75 in 2010 to 80 in 2014, but was concerned that no cultural officer and no ecologist/earth science specialist had yet been appointed. A draft management plan for 2014-2018 is currently under review for adoption in 2014.

The mission was informed that about 250,000 visitors visit the site per year with 60% international and 40% local/national tourism. So far the carrying capacity of the site has not been assessed, and there are no regulations in place to limit the number of tourist camps in the site and its buffer zone. A number of illegal tourist camps were observed during the mission's visit; according to site management staff there are approximately 30 recognized camps and as many illegal camps, and the mission is concerned about the potential environmental degradation that may be caused by poorly managed tourism. A Regional/Special Plan has been prepared by ASEZA, including provisions for improving waste management in the region. Nevertheless, the mission was concerned about the management of liquid waste in relation to the rapid increase of tourism and visitation, for which no facilities currently exist. While noting the importance of ensuring adequate waste management, the

mission underscores that the property is a fragile natural landscape with exceptional cultural values where waste treatment systems could possibly affect the integrity of the site, and that any such facilities should therefore be located away from sensitive areas, and be subject to thorough Environmental (EIA) and Heritage (HIA) impact assessments in order to ensure that they do not negatively the site's Outstanding Universal Value.

The mission notes that the buffer zone is essential for the protection of the property and also for regulated economic activities, including tourism facilities. It was informed that site management is preparing a boundary modification for the buffer zone, and notes that any such modifications to boundaries should be carried out in accordance with the procedures set out in the *Operational Guidelines*, and should be based on a clear understanding of Outstanding Universal Value and the conditions of integrity. Special care should be taken to clearly identify the zoning around Rum Village and its approach road, and the mission recalls that at the time of its evaluation of the property, IUCN considered that the originally proposed boundaries, which excised Rum Village and its approach road from the property by including it in the buffer zone, were inadequate.

The mission noted the importance of the intangible heritage related to the Bedouin tribes in the area, and considers that there is scope for future community centred projects to ensure that the close links between the tangible cultural heritage, the intangible living heritage and the natural heritage are adequately reflected in the management of the property.

The mission makes the following recommendations to the State Party:

- R1. The preservation of cultural heritage at the Wadi Rum Protected Area should be administered by the Ministry of Antiquity in close partnership with the local government administration (ASEZA) and at the local level (Wadi Rum Protected Area), specific personnel at each level of administration being given responsibility for the conservation of cultural heritage;
- R.2 As a result of the unavailability of the documents relating to Wadi Rum Cultural Heritage Management at the time of the visit, the State Party may wish to call on ICOMOS expertise, including through the possibility of an advisory mission, to guide on the rapid integration of this work into the overall management plan for the property;
- R.3 In partnership with universities, establish as a matter of urgency a cultural heritage database, ensure its integration with any existing natural heritage data into one database which is compatible with the local ASEZA database, and include the use of GIS to facilitate integrated monitoring of the cultural and natural heritage of the property;
- R4. Undertake a survey of the state of conservation of all rock art sites and archaeological sites to establish a baseline for monitoring;
- R5. Establish an informal monitoring and reporting system whereby local guides can easily report damage of cultural heritage sites to the relevant authorities so that immediate remedial action can be taken:
- R6. Adopt a consistent conservation approach for all archaeological sites, as well as for the Lawrence House, to set adequate guidelines for interpretation and to ensure their long-term conservation;
- R7. Enforce the legal provisions in relation to tourism camps, remove all illegal tourism camps from the property, and ensure the rehabilitation of any degraded areas;

- R8. Undertake an Environmental Impact Assessment (EIA) and a Heritage Impact Assessment (HIA) of current tourism activities and facilities in the property to determine their impact on its Outstanding Universal Value (OUV), in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and ICOMOS' Guidelines on Heritage Impact Assessment;
- R9. On the basis of the results of the above-mentioned EIA and HIA, develop a tourism strategy for the property and its buffer zone (possibly within the framework of the UNDP/GEF project), which should include:
 - a) an assessment of the property's tourism carrying capacity, and the definition of a maximum number of tourist camps allowed in the property and its buffer zone:
 - b) diversification of areas to be visited to enhance visitor experience;
 - c) improvement of control measures and safety considerations, including by marking designated routes and walkways, and erecting viewing platforms to give visitors a better view of rock art sites, using appropriate materials that blend into the landscape;
- R10. Ensure adequate interpretation panels at all identified sites, as well as improved communication and promotion of the property as a whole, re-open the interpretation centre at the visitor's centre, and include interpretation of cultural and natural values at proposed museum sites;
- R11. Develop a plan for the management of liquid waste generated by Rum village and increasing tourism, while duly taking into account the fragile character of the natural landscape and exceptional cultural values, and ensure by means of an EIA and HIA that any waste treatment facilities would not negatively impact on the property's OUV;
- R12. Ensure strong and effective coordination between all stakeholders at the regional and national level in the implementation of the management plan, including by:
 - a) disseminating the Memorandum of Understanding (MoU) between the Ministry of Tourism and Antiquities/Department of Antiquities (DoA) and the Aqaba Special Economic Zone Authority (ASEZA) among all stakeholders, and share the required expertise in cultural heritage management, conservation and archaeology to ensure the integrated management of the natural and cultural values of the property;
 - b) include the MoU in the new management plan, and undertake a formal review of the MoU after two years to assess its effectiveness;
 - c) urgently appointing a cultural resource officer with field experience, as well as an earth sciences specialist, to be involved in the management of the property, and ensure that the cultural resource officer in particular is given opportunities to participate in World Heritage training activities, preferably regional workshops for cultural heritage, territorial management courses at ICCROM and workshops related to the HEADS thematic programme;
- R13. Revise the draft 2014-2018 Management Plan, in order to:
 - a) provide adequate explanations for the revisions of the boundaries (see also recommendation R13) especially in relation to Rum Village and its approach road:
 - b) ensure that the OUV is fully reflected, including for the cultural heritage, based on the statement of OUV that was adopted by the World Heritage Committee at its 36th session (Saint Petersburg, 2012);
 - c) fully integrate the outcomes of the following studies (received by the World Heritage Centre only after the mission):

- i. revisions to the Wadi Rum Protected Area (WRPA) tourism development and visitors' management plan dated 14 March 2013;
- ii. the Cultural Heritage Management Plan (Wadi Rum PA);
- d) integrate all the other recommendations made by this mission that relate to the management of the property;
- R14. Building on existing partnerships, ensure sustainable funding for the site management and benefits for local communities, while recognizing that the primary responsibility for covering the costs of the implementation of the management plan of the property lies with ASEZA;
- R15. Carefully consider the need for a boundary modification of the buffer zone, taking into account:
 - a) the essential role played by the buffer zone in the protection of the property by regulating economic activities;
 - b) previous concerns raised by IUCN at the time of its evaluation of the property's nomination, in relation to the originally proposed excision from the property of Rum Village and its approach road;
 - c) the procedures for the modification of the boundaries of World Heritage properties as laid out in Chapter III.I of the *Operational Guidelines for the Implementation of the World Heritage Convention*.

The mission also makes the following additional recommendations:

- R16. Noting the importance of the intangible heritage related to the Bedouin tribes in the area, the mission recommends that the State Party provides, in the visitor centre, adequate communication, interpretation, and promotion of the *Cultural Space of the Bedu in Petra and Wadi Rum* recognized in 2005 under the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, to further explain the living heritage of the cultural landscape of Wadi Rum and the exceptional interaction between people and the desert environment;
- R17. Take into account lessons learnt from recent projects, funded through the 2003 Convention, in future community centred projects, and ensure that the close links between the tangible cultural heritage, the intangible living heritage and the natural heritage of the property are adequately reflected in the management of the property.

1. BACKGROUND TO THE MISSION

1.1 Introduction

In accordance with Decision **35 COM 8B.15** adopted by the World Heritage Committee at its 35th session (UNESCO, 2011) concerning the inscription of the property on the World Heritage List, and Decision **36 COM 8B.65** adopted by the World Heritage Committee at its 36th session (Saint Petersburg, 2012) concerning the Statement of Outstanding Universal Value of the property, and taking into consideration the *Operational Guidelines for the Implementation of the World Heritage Convention*, the reactive monitoring mission assessed issues related to the overall state of conservation of the property of **Wadi Rum Protected Area (Jordan)**.

The Committee at its 35th session requested "the State Party to invite a joint World Heritage Centre and Advisory Bodies mission to the property to assess progress on the [World Heritage Committee's] recommendations and report back to the World Heritage Committee at its 38th session in 2014."

It has to be mentioned that prior to the current reactive mission the management team of WRPA had invited the IUCN ROWA Regional World Heritage Coordinator in November 2013 to undertake an initial consultation meeting to assess progress made in fulfilling the recommendations made by the World Heritage Committee in 2011. The IUCN ROWA mission concluded that political instability in the region, economic difficulties and local conflicts over scarce resources are restricting effective implementation and management of the property, and that a comprehensive tourist management plan is also required.

1.2 Inscription history and World Heritage values

The nomination of Wadi Rum was submitted by the State Party on 1 February 2010 under criteria (iii), (v), (vi), (vii), and (viii), and as a cultural landscape.

The nomination was evaluated by both IUCN and ICOMOS. IUCN recommended the Committee to refer the nomination back to the State Party to strengthen the comparative analysis on criterion (vii), to allow for the revision of the management plan, strengthen the regulations for the buffer zone and regulations of development, tourism, infrastructure and vehicle management.

ICOMOS recommended the Committee to defer the nomination as the comparative study was not adequate; it also did not consider that any of the cultural criteria were met at this stage although there was some potential indicated. ICOMOS further gave a number of recommendations concerning threats (waste management, vehicle control, urban development around Rum Village and tourism development) as well as the boundaries of the property to be rearranged. It further considered that an up-to-date inventory and map of the rock art sites and archaeological sites was required.

The Committee at its 35th session (UNESCO, 2011) inscribed the site under both natural and cultural criteria and recommended the State Party to implement the recommendations from the advisory bodies concerning the values, authenticity and integrity of the property. To review progress it requested a reactive monitoring mission prior to its 38th session in 2014. As no Statement of Outstanding Universal Value based on the Advisory Bodies evaluation was available at the time of inscription, the statement had to be approved at the following session. The Statement of Outstanding Universal Value of the property was adopted by the 36th session of the World Heritage Committee (Decision **36 COM 8B.65**, see Annex) with the following criteria:

Criterion (iii): The rock art, inscriptions and archaeological evidence in WRPA can be considered an exceptional testimony of the cultural traditions of its early inhabitants. The combination of 25,000 petroglyphs, 20,000 inscriptions, and 154 archaeological sites provides evidence to continuity of habitation and land-use over a period of at least 12,000 years. The petroglyphs, representing human and animal figures, are engraved on boulders, stones, and cliff faces. They provide evidence of long-term patterns of pastoral, agricultural and urban human activity in the property. Engravings indicate an elaborate sense of aesthetics in a pictorial culture, and the archaeological findings span all eras from the Neolithic to the Nabataean. Thamudic, Nabataean and numerous Arabic inscriptions in four different scripts testify to the widespread literacy among its pastoral societies.

Criterion (v): The variety of landforms at WRPA has played an essential role in fostering human settlement. The rock art, inscriptions and water catchment systems document the settlements of successive communities, which developed in areas of mobile animal husbandry and agriculture and form part of a wider context of human interaction with the semi-arid eastern desert environment of the Arabian Peninsula. WRPA assists the understanding of the continuum of settled and mobile lifestyles in a desert landscape illustrating the adaptability and ingenuity of human communities who have made the most of scarce resources to sustain continuous presence after the climate became dryer in the Bronze Age (3rd millennium BC).

Criterion (vii): WRPA is recognised globally as an iconic desert landscape, renowned for its spectacular series of sandstone mountains and valleys, natural arches, and the range of narrow gorges, towering cliffs, massive landslides, and dramatic cavernous weathering forms displayed. Key attributes of the aesthetic values of the property include the diversity and sheer size of its landforms, together with the mosaic of colours, vistas into both narrow canyons and very large wadis, and the scale of the cliffs. The property displays, in a protected setting, an exceptional combination of landforms resulting from drainage incision, severe weathering by salt, biological and other processes, and the undermining of steep sandstone cliffs by these weathering processes, together with the world's most spectacular networks of honeycomb weathering features. Its associations with the writings of T.E. Lawrence, stressed strongly in the nomination, have ensured a high profile for the property and have reinforced its reputation of the area as a classic desert landscape both globally and within the Arab States.

1.3 Integrity/authenticity issues raised at time of inscription

At the time of inscription of the property both ICOMOS and IUCN mentioned a number of issues related to the integrity and authenticity of the site including:

- It was questioned whether the area nominated would fully cover the cultural values (rock art, inscriptions, archaeological sites), and it was noted that the site boundary may have to be changed to accommodate the ICOMOS analysis. Concerning authenticity it was considered that the cultural heritage remained mainly unaltered except for erosion and weathering; ICOMOS questioned however whether the conditions of authenticity would be met for the archaeological sites, mainly as only few have been excavated and others have been disturbed and remain unprotected;
- For the natural heritage values, IUCN considered that the conditions of integrity were met, but that the management plan and the regulations for the buffer zone were to be completed and key threats including tourism management and vehicle control were to be addressed:

It is important to note that the boundaries proposed by the State Party in its original nomination did not include Rum Village and its approach road, and instead included them in the buffer zone. IUCN did not consider this boundary configuration to be adequate, and noted in its evaluation report that "IUCN requested further information from the State Party on this excision of part of WRPA from the nominated area. In response the State Party notes that the boundary of the nominated area has been 're-adjusted to include the full size of the protected areas as defined in the Wadi Rum protected area by-law and without the exclusion of the land strip form

the visitor centre to Rum village.' A revised map has been submitted and noted by the World Heritage Centre."

While the conditions of authenticity and integrity were not fully met, the Committee at its 35th session in 2011 nevertheless decided to inscribe the property. The Statement of Outstanding Universal Value adopted by the Committee at its 36th session in 2012 includes the following sections on integrity and authenticity:

Integrity: Since the identification of Wadi Rum as a potential nature reserve in 1978 the various landforms and cultural resources have been managed in a shared framework, which prevented extensive development impacts and maintained the landscape character of the property. The buffer zone of Rum Village contains significant cultural property values and the cultural landscape character of the property reaches even beyond the mostly 5 kilometers perimeter of the buffer zone.

Authenticity: The rock art remains in its original setting, largely unaltered except for the effects of weathering, which has led to its fading as a result of rain and wind erosion, leaving some petroglyphs hard to distinguish. In addition modern graffiti has a negative impact on several of the original drawings and inscriptions. However, the fact that so many petroglyphs and inscriptions have been documented means that their ability to convey the cultural traditions of the people who made them continues and that they qualify as an important resource for research.

1.4 Examination of the State of Conservation by the World Heritage Committee

The Committee has not previously examined the state of conservation of the property, however a number of threats were noted at the time of the inscription of the property and a reactive monitoring mission was requested to be invited prior to the 38th session of the Committee in 2014 to review progress in addressing these threats.

2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

2.1 Protected area/national legislation

A variety of legislation ensures protection and conservation of the property. The Wadi Rum Protected Area (WRPA) was established in 1997 following cabinet decision no. 27/11/3226 (1997) and extended in 2002, following decision 224/11/1/986 (2002). With support from the World Bank, the Royal Society for the Conservation of Nature (RSCN) prepared a conservation plan and built up a team of local people to manage the area in view of its nomination as a World Heritage property. The site is further recognized as an archaeological site under the Law of the Department of Antiquities no. 21 (1988) and constitutes a Special Regulation Area under the Administration of the Agaba Special Economic Zone Authority (ASEZA).

2.2 Institutional framework and management structure

As the property is recognized as an archaeological site under the Law of the Department of Antiquities no. 21 (1988), responsibility for the management and conservation of its cultural heritage lies with the Department for Antiquities (DoA). Natural heritage issues are coordinated with the Directorate of Nature Protection at the Ministry of the Environment. Direct responsibility for the property is under the Administration of the Aqaba Special Economic Zone. The primary plan guiding the management and development programme of the property is the Aqaba Special Economic Zone land use plan, which covers the whole governorate of Aqaba and is administrated by the Aqaba Special Economic Zone Authority. The property has an effective management unit, including rangers and other staff dedicated to the management of the natural components of the property. However, the revised management plan (2014-2018) should provide emphasis to the integrated management of the natural and cultural values of the property. This would require dedicated staff for cultural heritage (see below). The World Heritage property requires continuous monitoring based on an integrated monitoring system, preventive conservation of natural and cultural resources, and periodic updating of the management plan, as well as specific documents such as visitor strategy.

The administration of the Wadi Rum Protected Area is somewhat unique in Jordan as it is located within the jurisdiction of ASEZA. All aspects of the property management and all decisions concerning its administration are fully devolved from the central government to ASEZA with the exception of the care of Cultural Heritage, which is still administered directly from Amman by the Ministry of Antiquities. Responsibility for the Wadi Rum Protected Area falls specifically within the portfolio of the ASEZA Commissioner of Environment and Health and the site manager of the Wadi Rum Protected Area reports directly to the ASEZA Commissioner of Environment and Health, not to any branch of central government.

Furthermore, the Management of the Protected Area is divided into the following departments:

- Tourism Manager
- Head of Nature Conservation
- Head of Education and Outreach
- Head of Finance and Administration
- Head of Handicraft Centre

This management structure results in a situation with no staff within the management or administration structures at either the regional level (ASEZA), or the local level (Wadi Rum Protected Area) being responsible for, or understanding, the requirements of cultural heritage preservation.

The mission recommends that the responsibility for the preservation of cultural heritage at the Wadi Rum Protected Area, be added to the portfolio of the ASEZA Commissioner of Environment and Health to provide a focal point for the regional government to interact with

the Ministry of Antiquities. Additionally the Mission recommends that the responsibility for the preservation of cultural heritage be added to the responsibilities of one of the sections of the Protected Area management structure. Those responsible for the preservation of cultural heritage at the regional level (ASEZA), or local level (Wadi Rum Protected Area) should liaise closely with their equivalent numbers within the Ministry of Antiquities to allow a good flow of information between the responsible departments of government.

The mission makes the following recommendation:

R1. The preservation of cultural heritage at the Wadi Rum Protected Area should be administered by the Ministry of Antiquity in close partnership with the local government administration (ASEZA) and at the local level (Wadi Rum Protected Area), specific personnel at each level of administration being given responsibility for the conservation of cultural heritage;

3. IDENTIFICATION AND ASSESSMENT OF ISSUES

The mission regrets that two documents, which were requested to be provided to the World Heritage Centre in advance to the mission, and were also requested during the mission's visit, were only received nearly a week after the mission's return and when it was finalizing its report. This concerns the following documents:

- Revisions to the Wadi Rum Protected Area (WRPA) tourism development and visitors' management plan dated 14 March 2013;
- Wadi Rum PA: Cultural Heritage Management Plan (no date)

In view of the specific requests of the World Heritage Committee, the mission welcomes these additional documents. However, due to their late submission, the mission did not have sufficient time to fully consider these documents in its assessment of the issues affecting the property. The mission recommends that the State Party to seek advice including by inviting an advisory mission by ICOMOS for the rapid integration of this work into the overall management plan for the property. This would be necessary to avoid deterioration and neglect of the cultural sites within the World Heritage property and its buffer zone but also to provide further guidance to enhance the capacity of the staff on these matters.

The mission makes the following recommendation:

R2. As a result of the unavailability of the documents relating to Wadi Rum Cultural Heritage Management at the time of the visit, the State Party may wish to call on ICOMOS expertise, including through the possibility of an advisory mission, to guide on the rapid integration of this work into the overall management plan for the property;

3.1 Development of a cultural heritage database

The mission noted that the development of a cultural heritage database has not occurred. A brief literature research reveals that there has been a wealth of archaeological and anthropological research carried out in the area. The Italian anthropologist Edoardo Borzatti von Loewenstern has spent thirty years studying the petroglyphs and inscriptions. Saba Farès-Drappeau of the Université de Lorraine has also undertaken an epigraphical, geographical and archaeological survey over almost a decade and there have been many more publications regarding the archaeology, inscriptions and petroglyphs. All of this material may be available at the Ministry of Antiquities in Amman, but is not available at the property or at the level of local government in the archives of the Aqaba Special Economic Zone Authority (ASEZA). The published historical survey data should be used to develop a definitive catalogue of cultural heritage sites within the property.

Monitoring and condition surveys of the cultural heritage within the property are a prerequisite for successfully determining the forces of deterioration acting upon the ancient material and the rate at which deterioration is occurring. In order to initiate this process a "baseline" dataset of current conditions has to be established. Prior to undertaking an initial condition survey, a catalogue of all archaeological sites, petroglyphs and inscriptions has to be assembled and the locations mapped in order to quantify the parameters of the project and design the methodology.

Figures of 154 archaeological sites, 25,000 petroglyphs and 20,000 inscriptions have been proposed as the extent of the cultural heritage sites within the property. Presumably these figures emanate from the surveys mentioned above and these publications can be used to create a definitive list of sites and their locations. This data needs to be digitized so it can be added to a GIS system and linked to a base map by GPS. Once the extent of the cultural heritage is catalogued, mapped and added to the GIS, a full condition survey of the cultural heritage sites can be undertaken and the data gathered added to the GIS linked to the sites, thus forming a baseline data set of condition against which future change can be assessed. It has been suggested that the MEGA-Jordan GIS based National Documentation and Management System will be utilized for storing and accessing the conservation survey data for the property. A cursory examination of the MEGA-Jordan GIS shows that the base map for the system appears to be Google Earth. The resolution of Google Earth is likely to be insufficient for distinguishing the individual rock art and archaeological sites of the property. It may be possible to incorporate a higher resolution satellite image of the property into the MEGA-Jordan GIS to act as a higher resolution, local base map, but it would appear the MEGA-Jordan has not been developed as a tool to be used at the resolution required at Wadi Rum. The mission considered that it might be a better alternative to develop a specific GIS for the property.

ASEZA has developed a locally administered GIS in place that covers the property. As ASEZA has responsibility for the site, and as the administration structure of the site is a division of ASEZA, this would appear to be the obvious approach. It would be relatively easy to add the required layers to the ASEZA GIS and the Protected Area staff could update the databases and the GIS administered by the ASEZA staff. The local GIS could be linked to the MEGA-Jordan GIS to give wider access if required. Having the location and administration of the Protected Area GIS in Aqaba is highly preferable to it being located remotely, as maintenance and development of the system can be undertaken face to face between those using the system and those responsible for administering it.

The cultural and natural heritage data should be integrated into one database which is compatible with the local ASEZA database. Further partnerships should be established with universities in all aspects of natural and cultural heritage monitoring and database development. Furthermore, RSCN should continue to provide its expertise in monitoring the natural components of WRPA and work closely with the DoA and ASEZA to set-up a joint monitoring programme for the cultural and natural attributes that embody the OUV of the property.

The mission makes the following recommendation:

R3. In partnership with universities, establish as a matter of urgency a cultural heritage database, ensure its integration with any existing natural heritage data into one database which is compatible with the local ASEZA database, and include the use of GIS to facilitate integrated monitoring of the cultural and natural heritage of the property;

R4. Undertake a survey of the state of conservation of all rock art sites and archaeological sites to establish a baseline for monitoring;

3.2 Conservation of cultural heritage

Rock art sites and inscriptions

The mission recalls that the property was inscribed under criterion (iii) for its exceptional rock art with 25,000 petroglyphs, 20,000 inscriptions and 154 archaeological sites. The state of preservation of the cultural heritage cannot be assessed until a complete conservation condition survey has been undertaken. As outlined above an accessible and searchable catalogue and database of the cultural heritage sites needs to be established before a formal survey can be undertaken. In the intervening period prior to the conservation survey being carried out, informal monitoring should be undertaken in order to gain an understanding of the scope of the problem and identify any obvious problems that require immediate remedial action.

While the majority of the inscriptions are in themselves ancient graffiti, modern graffiti is a very prominent problem at the property. There is clearly a tradition of leaving one's mark. The majority of the graffiti is local, but there is still a significant proportion of graffiti emanating from tourists.

A conversation between the mission and representatives of the local village associations revealed that while leaving one's mark on inscription sites used to be seen as legitimate, it is no longer viewed as acceptable as there are now better ways of leaving one's mark in the world. The local village associations should be encouraged to try to discourage the practice and to encourage those who do leave graffiti to do so well away from the ancient inscriptions. Tourists should be informed of the local tradition and by way of signage and interpretation boards be made aware that graffiti is not tolerated.

An informal monitoring/reporting system needs to be established whereby local guides can easily report damage of cultural heritage sites to the relevant authorities so that immediate remedial action can be taken.

Archaeological Sites

The mission visited the Nabataean Temple near Rum Village and the "Lawrence House" as examples of archaeological sites. The mission was informed of other excavations by French and American teams but was not shown these and was not able to assess their condition. No overview of the 154 archaeological sites was presented.

The archaeological sites visited had clearly been conserved at the time of excavation but it was equally clear that no conservation maintenance had been carried out in the intervening period resulting in a very run down appearance. The mission was informed that all conservation of archaeological sites was undertaken at the time of excavation by the foreign excavation teams. There is no requirement for further conservation of exposed archaeology by the excavators. With no facilities, expertise or funding for conservation available to the property management a strategy for the future conservation of archaeological sites needs to be developed. Exposed archaeology has to be constantly maintained and a budget, equipment and expertise need to be identified and made available to the management staff for this work. At present visiting excavators implement specific conservation methodologies at their own site. Inconsistencies in methodology between sites can result in confusion for visitors. If one team adds additional blocks to a wall top to stabilize the structure while another does not, visitors cannot understand what is original and what is new added material.

The mission recommends that a standard methodology for conservation be developed, officially adopted and made a requirement for conservation of excavated archaeological material at the property.

To avoid an ever increasing maintenance cost for exposed archaeology as more sites are excavated and structures exposed, it is also advisable that reburial of excavated material become the preferred method of archaeological site conservation at the property.

The training of local people to undertake conservation treatments should be encouraged and will help the local economy, aid consistence of methodology and hopefully stimulate the local community to become engaged with the protection of cultural heritage.

The mission makes the following recommendations:

- R5. Establish an informal monitoring and reporting system whereby local guides can easily report damage of cultural heritage sites to the relevant authorities so that immediate remedial action can be taken;
- R6. Adopt a consistent conservation approach for all archaeological sites, as well as for the Lawrence House, to set adequate guidelines for interpretation and to ensure their long-term conservation;

3.3 Tourism management

The mission was informed that about 250,000 visitors visit the site per year with 60% international and 40% local/national tourism, but apparently the carrying capacity of the site has not been assessed. The mission saw a number of illegal camping areas within the property. According to site management there are approximately 30 recognized camps and as many illegal camps. The mission urges the authorities to enforce the legal provisions and ensure regulations are applied especially in view of potential environmental degradation. It recommends the authorities to consider setting a maximum number of camps within the buffer zone and property to ensure the proper conservation of the site.

At present there is a well-worn tourist trail that a large proportion of visitors follow. This trail includes the rock art sites of the Alamelah Inscriptions and Burrah Canyon. These two sites are suffering erosion and damage from the concentration of visitation. There is no control of visitors at these sites and visitors climb directly on the fragile rocks and are free to touch inscriptions and rock art. Local control of visitors at these sites should be achieved by the erecting viewing platforms and walkways, using appropriate materials that blend into the landscape, to separate the visitors from the cultural heritage and enhance the visitors' experience by affording better views of inscriptions and rock art.

Thought should also be given to identifying further rock art sites to develop for tourist visitation, thus diluting the erosion pressure on existing sites due to high visitation and enhancing the overall visitor experience by increasing the diversity of sites visited.

There are currently no signage or interpretation boards at any of the cultural heritage sites. The lack of information for visitors greatly diminishes the visitor experience and can result in misuse by visitors. With no indication that the area is an archaeological site and no explanation of the significance and historical relevance to the visitor, when added to the run down condition resulting from lack of maintenance, the result is visitors not understanding the need for the site to be respected.

The lack of signage and interpretation at the site with regard to both cultural and natural heritage is a significant problem. An integrated project of signage and interpretation needs to be designed and implemented across the whole site.

There is an interpretation centre at the visitor centre that explains the history of, and relationship between, the cultural and natural landscapes. This facility has been closed for a number of years. There are also plans for the local municipality to open a museum in one of

the local villages adjacent to the property and another plan to complete a museum originally initiated by the Ministry of Antiquity.

An overall plan for the dissemination of information regarding both the cultural and natural heritage of the region needs to be developed. The plan should include all museums, tourist information points and interpretation sites and result in a coordinated, integrated information dissemination project that informs visitors of the cultural and natural heritage of the site, how it is protected and the responsibility of the visitors to help maintain the integrity of the property. This project needs to be implemented as soon as possible.

The mission welcomes the UNDP/GEF project (3.6 million for 4 years and 4 sites including two World Heritage areas WRPA and Petra) and encourages the site management and national authorities to focus on effective implementation of the management plan, business planning and visitor management strategy.

The mission makes the following recommendations:

- R7. Enforce the legal provisions in relation to tourism camps, remove all illegal tourism camps from the property, and ensure the rehabilitation of any degraded areas;
- R8. Undertake an Environmental Impact Assessment (EIA) and a Heritage Impact Assessment (HIA) of current tourism activities and facilities in the property to determine their impact on its Outstanding Universal Value (OUV), in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and ICOMOS' Guidelines on Heritage Impact Assessment;
- R9. On the basis of the results of the above-mentioned EIA and HIA, develop a tourism strategy for the property and its buffer zone (possibly within the framework of the UNDP/GEF project), which should include:
 - a) an assessment of the property's tourism carrying capacity, and the definition of a maximum number of tourist camps allowed in the property and its buffer zone:
 - b) diversification of areas to be visited to enhance visitor experience;
 - c) improvement of control measures and safety considerations, including by marking designated routes and walkways, and erecting viewing platforms to give visitors a better view of rock art sites, using appropriate materials that blend into the landscape;
- R10. Ensure adequate interpretation panels at all identified sites, as well as improved communication and promotion of the property as a whole, re-open the interpretation centre at the visitor's centre, and include interpretation of cultural and natural values at proposed museum sites;

3.4 Waste management

The Committee in its decision to inscribe WRPA further recommended to the State Party to consider establishing a solid and liquid waste management system for Rum village and for camping sites. The mission noted that a Regional/Special plan was prepared by ASEZA that included improving waste management in the region; however it was concerned about liquid waste related to rapid tourism increase. It underscores that the property is a fragile natural and landscape area with exceptional cultural values and that waste treatment systems could possibly affect the integrity of the site. The mission recommends that any development of a waste management system should be carefully considered and subject to EIA and HIA to assess the different options. Waste management could also be tackled through proper awareness campaigns targeting tourists, tour operators, the villagers and the Bedouin, to take more responsibility for keeping the WRPA and its surroundings clean. The waste management

issue has been mentioned more than once in the draft management plan 2014-18. Measures proposed to improve waste management in WRPA should be properly considered as part of the implementation of the management plan and also within the development plans approved by ASEZA.

The mission makes the following recommendation:

R11. Develop a plan for the management of liquid waste generated by Rum village and increasing tourism, while duly taking into account the fragile character of the natural landscape and exceptional cultural values, and ensure by means of an EIA and HIA that any waste treatment facilities would not negatively impact on the property's OUV;

3.5 Status and implementation of the management plan and management effectiveness

The mission received the new version of the management plan (2014-2018) as a draft, which is currently under review for adoption during 2014. The process of revising the Management Plan began in 2010 with the WRPA Management Team, assisted by the USAID Jordan Tourism Development Project. The management plan has been discussed at the level of the WRPA management committee and it is awaiting approval by the board of Commissioners at ASEZA level.

The draft document shows an effort made in reflecting the challenges deriving from the inscription of the property in the World Heritage List. Strategic commitments have also been identified (page 4 of the draft management plan) for the effective implementation of the WRPA vision through:

- Full political support and understanding of Wadi Rum as a World Heritage property of 'Outstanding Universal Value', and a protected area in Jordan;
- An effective management programme led by a competent well equipped team;
- A high level of involvement of all stakeholders in the management and sustainable practices for site activities (particularly with engaging the local communities);
- A business plan leading to sustainable tourism development and a visitor management program with conservation initiatives and local benefit as primary outcomes;
- A scientific approach to understanding and conserving the natural and cultural values
 of the site in close collaboration with stakeholders and interest groups, locally,
 regionally and internationally.

These commitments are in line with the Decisions of the World Heritage Committee of 2011 and 2012, but no concrete measures for their implementation have been identified by the mission.

One of the key issues of the successful implementation of the management plan is the availability of financial and necessary human resources. The mission noted the increase in staff at site management level from 75 in 2010 to 80 in 2014, but was concerned that no specialists in cultural and natural heritage components were appointed (e.g. cultural resources, ecology and earth sciences specialists).

Regarding the financial level, a serious decrease in the ASEZA budget is affecting the annual allocation to WRPA. Covering the costs of the implementation of the management plan will be primarily the responsibility of ASEZA, supported by its national and international partners and donor agencies. The mission notes that the UNDP/GEF project (2014-2017) which will be implemented in four sites, among them WRPA, could be one of the alternatives to assist the WRPA management team during the first three years of the management plan. As the finances for the property are sporadic, the UNDP/GEF project should also contribute in establishing suitable mechanisms to ensure a sustainable financing for the site management and benefits

for local communities, and also specify the necessary legal framework for its implementation. The mission welcomes existing partnerships such as the one with the Women Cooperative for products and the Safari Jeep Tours by Diseh and Rum Tourism Societies (NGOs). The mission also welcomes their commitment to reduce graffiti at the sites. RSCN as an experienced NGO for protected areas management and fundraising should also contribute in seizing any national and international opportunities to strengthen the financial situation of WRPA and to develop strategic partnerships with relevant organisations for capacity building, World Heritage monitoring and community development.

It has to be recalled that the previous managers of the Royal Society for the Conservation of Nature (RSCN) established the first management plan for WRPA in 2003 using IUCN guidelines. This plan was established covering the period of 2003 to 2010. A decade later, the principal 2003 management plan recommendations remain unachieved and without dedicated resources. The extended period of neglect has been damaging to the WRPA's state of conservation (draft WRPA management plan 2014-18, page 3). The lessons learned from the first management plan should be taken into consideration in the implementation phase for the second one, which spans the period 2014-18. High level of commitment among the key partners ASEZA, Ministry of Tourism and Antiquities (MTA), and the Ministry of Environment (MoE) is crucial. Furthermore they should urgently approve a road map specifying the role of each partner and the necessary human and financial resources for the implementation of the management plan.

As a mixed site, the natural and cultural components of the property should be preserved and managed with the same level of attention. The site shelters exceptional aesthetic values derived from its geology and geomorphology, as well as cultural values, as recognized in the Statement of the Outstanding Universal Value (SOUV). Regarding the cultural aspects, there is an urgent need to appoint a specialist in cultural heritage within the staff of WRPA. The Director General of the Department of Antiquities (DoA) in the Ministry of Tourism and Antiquities assured the mission of the willingness to appoint a specialist to deal with WRPA cultural aspects. Furthermore, a Memorandum of Understanding (MoU) will be signed shortly between the DoA and ASEZA to strengthen the collaboration and the exchange of information in relation to WRPA. This MoU should be taken into consideration in the management plan orientation 2014-18 and should, within its timeframe, contribute to the implementation of the management plan.

The mission met with relevant stakeholders (see Annex VI) and noted a lack of coordination between the cultural and natural heritage departments as well as between regional and national institutions. It was informed that a MoU (2014-2016) had been prepared between the Ministry of Tourism and Antiquities/ Department of Antiquities (DoA) and of the Aqaba Special Economic Zone Authority (ASEZA) as was ready for signature in May 2014. The mission recommends that this MoU be disseminated among all stakeholders and implemented in the management of property to allow the required expertise in cultural management expertise, conservation and archaeology to be shared for an integrated management of the natural and cultural values of the site; a formal review needs to take place after two years to assess its effectiveness. The MoU and its provisions should be included in the update of the management plan.

The institutional coordination for the implementation of the management plan either at national or at regional level is fundamental for optimising resources and for reaching the expected results. ASEZA should in this regard take a more proactive role in involving the main stakeholders from the government, research institutions and non-governmental organisations to closely follow the implementation of the management plan and respond timely to the needs (additional studies, inventories, scientific monitoring, financial and logistic issues, etc.) of WRPA. The RSCN, which was involved in the former management plan, should continue providing its expertise and know-how to WRPA management team, through capacity building programmes and the development of a database for the natural values of the protected area.

A diverse range of skills and expertise is required to successfully achieve the required improvements in the state of conservation of cultural heritage at the property. Partners in the form of universities and individual consultants with the required expertise should be identified and engaged to help design projects and source funding for the implementation of the improvements.

The Ministry of Environment, in its capacity as Focal Point for the World Heritage Convention in Jordan, has been following the process of preparing the new management plan of WRPA. The MoE should play a more proactive role in disseminating information about the World Heritage Convention and obligations of the State Party in fulfilling its commitments concerning WRPA as a mixed World Heritage site. High-level meetings between MoE, MTA and ASEZA should take place at least once a year to follow the state of conservation of WRPA, assess progress in the implementation of the recommendations made by the World Heritage Committee at the time of the property's inscription and subsequently and those of the reactive monitoring mission of 2014, and take the necessary actions to resolve eventual constraints.

The mission makes the following recommendations:

- R12. Ensure strong and effective coordination between all stakeholders at the regional and national level in the implementation of the management plan, including by:
 - a) disseminating the Memorandum of Understanding (MoU) between the Ministry of Tourism and Antiquities/Department of Antiquities (DoA) and the Aqaba Special Economic Zone Authority (ASEZA) among all stakeholders, and share the required expertise in cultural heritage management, conservation and archaeology to ensure the integrated management of the natural and cultural values of the property;
 - b) include the MoU in the new management plan, and undertake a formal review of the MoU after two years to assess its effectiveness;
 - c) urgently appointing a cultural resource officer with field experience, as well as an earth sciences specialist, to be involved in the management of the property, and ensure that the cultural resource officer in particular is given opportunities to participate in World Heritage training activities, preferably regional workshops for cultural heritage, territorial management courses at ICCROM and workshops related to the HEADS thematic programme;
- R13. Revise the draft 2014-2018 Management Plan, in order to:
 - a) provide adequate explanations for the revisions of the boundaries (see also recommendation R13) especially in relation to Rum Village and its approach road:
 - b) ensure that the OUV is fully reflected, including for the cultural heritage, based on the statement of OUV that was adopted by the World Heritage Committee at its 36th session (Saint Petersburg, 2012);
 - c) fully integrate the outcomes of the following studies (received by the World Heritage Centre only after the mission):
 - i. revisions to the Wadi Rum Protected Area (WRPA) tourism development and visitors' management plan dated 14 March 2013;
 - ii. the Cultural Heritage Management Plan (Wadi Rum PA);
 - d) integrate all the other recommendations made by this mission that relate to the management of the property;
- R14. Building on existing partnerships, ensure sustainable funding for the site management and benefits for local communities, while recognizing that the primary responsibility for covering the costs of the implementation of the management plan of the property lies with ASEZA;

3.6 Buffer zone and planned boundary modification

The management plan should also include provisions for implementation in the buffer zone that surrounds the property and totals an area of 60,000ha. The mission notes that the buffer zone is essential for the protection of the property and also for regulated economic activities, including tourism facilities. The mission was informed that the site management is preparing a boundary modification for the buffer zone. The mission notes that the boundaries of the area were not fully satisfactory according to the ICOMOS evaluation in 2011, as some of the rock art and archaeological sites may be located in the buffer zone or even outside of the 5km strip of the buffer zone. Likewise, IUCN in its evaluation of the property noted the inadequate configuration of the originally proposed boundaries which excluded Rum village and its approach road from the property. The State Party may wish to carefully review the recommendations made at the time of the inscription to fully cover the cultural attributes within the World Heritage property, or if sites are located in the buffer zone, to ensure their adequate protection, conservation and monitoring. The mission considers that if the State Party intends to submit a minor boundary modification, this should be done in conformity with the procedures set out in Chapter III.I of the Operational Guidelines, and should be based in a clear understanding of OUV and the conditions of integrity. Special care should be taken to clearly identify the zoning around Rum Village and its approach road.

Meanwhile, the mission considers that any proposed revision of the boundaries should take into account the essential role played by the buffer zone for the protection of the property, as well as the potential need to identify and enforce regulatory measures to ensure adequate and efficient protection. The mission considers that the WRPA staff will need to work closely with the relevant departments of ASEZA to officially designate the buffer zone and to develop the regulations and land use plan guiding its development. The management staff of WRPA should also take all the measures to enforce the law within the buffer zone to avoid any negative impact on the World Heritage property. This should consider the illegal camping and impacts from vehicles. More collaboration with the Ministry of Tourism and with the Bedouin local communities is needed to reduce any environmental and visual impacts within the buffer zone.

The mission makes the following recommendation:

R15. Carefully consider the need for a boundary modification of the buffer zone, taking into account:

- a) the essential role played by the buffer zone in the protection of the property by regulating economic activities;
- b) previous concerns raised by IUCN at the time of its evaluation of the property's nomination, in relation to the originally proposed excision from the property of Rum Village and its approach road;
- c) the procedures for the modification of the boundaries of World Heritage properties as laid out in Chapter III.I of the *Operational Guidelines for the Implementation of the World Heritage Convention*.

3.7 Intangible heritage of the area

The mission was also informed about intangible heritage related to the Bedouin tribes in the area and noted the importance of the intangible heritage. The mission recommends using the 2005 recognition of the Cultural space of the Bedu in Petra and Wadi Rum as an element (formal inscription by 3.COM in 2008) of the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage in the visitor centre to further explain the living heritage of the cultural landscape of Wadi Rum and the exceptional interaction between people and the desert environment: "The Bedu of Petra and Wadi Rum have preserved specific knowledge related to the flora and fauna of the area, traditional medicine, camel husbandry, tent-making craftsmanship, and tracking and climbing skills. The Bedu have developed an extensive knowledge of their environment and complex moral and social code, all of which is expressed

and transmitted orally. Their rich mythology is manifested in various forms of oral expression, comprising poetry, folktales and songs that are closely linked to particular places and the history of these communities. Over the last fifty years, more and more Bedu groups have settled down. The provision of education, housing, health care and sanitation has made a sedentary existence more attractive for many of them, leading, however, to the erosion of skills developed by the Bedu over generations. The increase of desert tourism and its demand for "authentic Bedu culture" should not be allowed to further degrade the intangible heritage of the Bedu in Petra and Wadi Rum¹."

The mission noted that a project took place, funded from the 2003 Convention, with an action plan of two components: (a) The collection and intergenerational transmission of oral heritage; and (b) The transmission and adaptation of knowledge and know-how related to camel and weaving, two "pillars of bedu culture". The main beneficiaries were communities of settled and mobile Bedu living in and around the sites of Petra and Wadi Rum. The action plan was implemented by the Jordanian Hashemite Fund for Human Development through its network of community development centres in the regions of Petra and Wadi Rum, and through several independent community-based associations.

The mission makes the following additional recommendations:

- R16. Noting the importance of the intangible heritage related to the Bedouin tribes in the area, the mission recommends that the State Party provides, in the visitor centre, adequate communication, interpretation, and promotion of the Cultural Space of the Bedu in Petra and Wadi Rum recognized in 2005 under the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, to further explain the living heritage of the cultural landscape of Wadi Rum and the exceptional interaction between people and the desert environment;
- R17. Take into account lessons learnt from recent projects, funded through the 2003 Convention, in future community centred projects, and ensure that the close links between the tangible cultural heritage, the intangible living heritage and the natural heritage of the property are adequately reflected in the management of the property.

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¹ http://www.unesco.org/culture/ich/en/RL/00122

4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY AND RESPONSES TO THE COMMITTEE DECISIONS

The mission noted that a number of positive developments in the conservation of the property have occurred especially with regard to the updating of the management plan and the slight increase in staffing, as well as concerning a number of projects carried out in community development (e.g. Women's cooperative project) and sustainable tourism (e.g. Green Key project) or the UNDP/GEF project which will enhance management effectiveness and business planning at the site level in the future.

However the mission regrets slow progress in implementing the specific requests made at the time of the inscription and proposes that the World Heritage Committee requests the State Party to urgently implement these (see complete list under item 4). In addition, the mission also noted considerable issues with the joint management of the cultural and natural resources of the property and with the lack of an integrated monitoring programme. Furthermore, there is an urgent need to enforce the law within the property to avoid any further degradation of the cultural landscape. The State Party should also take urgent measures to start implementing the management plan with the involvement of all the stakeholders at national, regional and local levels.

The mission considers that the Outstanding Universal Value of the property as adopted by the World Heritage Committee in 2012 has been maintained; however a number of current and potential threats have been identified, some of which have been already mentioned by the 2010/11 advisory bodies' evaluations prior to the inscription of the site on the World Heritage List:

- Lack of a cultural heritage database to serve as a basis for conservation and monitoring;
- Lack of progress with the conservation of the rock art sites and inscriptions, vulnerable to fading and deterioration and in some cases to modern graffiti and of the archaeological sites, and of the Nabataean water reservoirs and temple site:
- Ineffective implementation of the management plan backed by necessary staff and financial resources
- Need for implementation of regulation for development activities, tourism infrastructure and facilities.
- Need for the implementation of the recently developed strategy for visitor management including vehicle route control within the property;
- Need for additional and appropriately trained staff within the management unit for the property focused on research, protection and presentation of the geological, geomorphological and cultural values of the property and engagement of national and international research institutions in the management system for the property;
- Need for implementation of the integrated monitoring programme for both natural and cultural values:
- Need for appropriate management of the cultural attributes of the property fully involving the Department of Antiquities and the Ministry of Environment;
- Need for adequate funding for the natural and cultural components of the site;
- Lack of a solid and liquid waste management system for Rum Village and camping sites,
- Need for an analysis of exterior reconstruction of the archaeological sites, which could impact on their authenticity; and any potential reconstruction works;

5. CONCLUSIONS AND RECOMMENDATIONS

As a general conclusion, the mission notes that efforts have been made by the State Party to respond to issues and concerns raised by the Decisions of the World Heritage Committee in 2011 and 2012, especially in view of the updating of the management plan financed by USAID and in obtaining project funding from UNDP/GEF for the site.

However the mission noted the slow progress with a number of issues raised by the Committee at the time of the inscription and urges the State Party authorities to collaborate at national, regional and site level in expediting their implementation.

The mission notes that the World Heritage area is a complex desert ecosystem with continuous extraordinary interaction between people and their environment since prehistory. This led to a unique mixed site and cultural landscape recognized and inscribed on the World Heritage List by the World Heritage Committee in 2011. The mission acknowledges that the World Heritage property of Wadi Rum Protected Area is not under serious threat and that the overall state of conservation of the site remains satisfactory. However, the mission concluded that a number of recommendations made at the time of the inscription still need to be implemented as a matter of urgency and that the overall governance for this mixed World Heritage site needs to be strengthened to mitigate potential threats due to its fragility and potential increase in tourism and visitation.

The mission noted that the development of a cultural heritage database has not occurred, which is a crucial requirement to enable integrated monitoring of the property's cultural and natural values. The mission was made aware of the use of MEGA Jordan (based at the Getty Conservation Institute in Los Angeles, USA). The MEGA Jordan database does not seem to appear to be suitable for the purpose of monitoring the property, as it is a national database covering multiple sites and the State Party should not rely on a database beyond its jurisdiction.

The mission recalls that the site was inscribed under criterion (iii) for its exceptional rock art that comprises close to 25,000 petroglyphs, 20,000 inscriptions and 154 archaeological sites. The state of conservation of these cannot be assessed until a survey has been carried out. Sites with high visitation such as Alameleh and Anfaishiyya Inscriptions or Burrah Canyon are particularly vulnerable, and the mission found no evidence of any conservation measures being implemented at those sites. The mission visited the Nabatean Temple near Rum Village evidencing permanent settlement at the time, as an example of an archaeological site (excavation completed by a French team in 1997); however no overview of the 154 locations was presented to the mission team. The temple site was conserved but not maintained and interpretation was lacking. The mission was informed about archaeological excavations by French and American teams but was not shown any and was not able to assess these. A visit to "Lawrence House" (named after T.E. Lawrence who stayed there in 1917) was also made; although there are questions on authenticity, this site should be interpreted for visitors as an example of the long history of exploration of the area. Original rock art on the stones reused for the house also require analysis and interpretation.

The mission met with relevant stakeholders and noted a lack of coordination between the cultural and natural heritage departments as well as between regional and national institutions. It was informed that a Memorandum of Understanding (MoU 2014-2016) had been prepared between the Ministry of Tourism and Antiquities/ Department of Antiquities (DoA) and the Aqaba Special Economic Zone Authority (ASEZA) and was ready for signature in May 2014. The mission noted the increase in staff at site management level from 75 in 2010 to 80 in 2014, but was concerned that no cultural officer and no ecologist/earth science specialist had yet been appointed. A draft management plan for 2014-2018 is currently under review for adoption in 2014.

The mission was informed that about 250,000 visitors visit the site per year with 60% international and 40% local/national tourism. So far the carrying capacity of the site has not

been assessed, and there are no regulations in place to limit the number of tourist camps in the site and its buffer zone. A number of illegal tourist camps were observed during the mission's visit; according to site management staff there are approximately 30 recognized camps and as many illegal camps, and the mission is concerned about the potential environmental degradation that may be caused by poorly managed tourism. A Regional/Special Plan has been prepared by ASEZA, including provisions for improving waste management in the region. Nevertheless, the mission was concerned about the management of liquid waste in relation to the rapid increase of tourism and visitation, for which no facilities currently exist. While noting the importance of ensuring adequate waste management, the mission underscores that the property is a fragile natural landscape with exceptional cultural values where waste treatment systems could possibly affect the integrity of the site, and that any such facilities should therefore be located away from sensitive areas, and be subject to thorough Environmental (EIA) and Heritage (HIA) impact assessments in order to ensure that they do not negatively the site's Outstanding Universal Value.

The mission notes that the buffer zone is essential for the protection of the property and also for regulated economic activities, including tourism facilities. It was informed that site management is preparing a boundary modification for the buffer zone, and notes that any such modifications to boundaries should be carried out in accordance with the procedures set out in the *Operational Guidelines*, and should be based on a clear understanding of Outstanding Universal Value and the conditions of integrity. Special care should be taken to clearly identify the zoning around Rum Village and its approach road, and the mission recalls that at the time of its evaluation of the property, IUCN considered that the originally proposed boundaries, which excised Rum Village and its approach road from the property by including it in the buffer zone, were inadequate.

The mission noted the importance of the intangible heritage related to the Bedouin tribes in the area, and considers that there is scope for future community centred projects to ensure that the close links between the tangible cultural heritage, the intangible living heritage and the natural heritage are adequately reflected in the management of the property.

The mission makes the following recommendations to the State Party:

- R1. The preservation of cultural heritage at the Wadi Rum Protected Area should be administered by the Ministry of Antiquity in close partnership with the local government administration (ASEZA) and at the local level (Wadi Rum Protected Area), specific personnel at each level of administration being given responsibility for the conservation of cultural heritage;
- R.2 As a result of the unavailability of the documents relating to Wadi Rum Cultural Heritage Management at the time of the visit, the State Party may wish to call on ICOMOS expertise, including through the possibility of an advisory mission, to guide on the rapid integration of this work into the overall management plan for the property;
- R3. In partnership with universities, establish as a matter of urgency a cultural heritage database, ensure its integration with any existing natural heritage data into one database which is compatible with the local ASEZA database, and include the use of GIS to facilitate integrated monitoring of the cultural and natural heritage of the property;
- R4. Undertake a survey of the state of conservation of all rock art sites and archaeological sites to establish a baseline for monitoring;
- R5. Establish an informal monitoring and reporting system whereby local guides can easily report damage of cultural heritage sites to the relevant authorities so that immediate remedial action can be taken;

- R6. Adopt a consistent conservation approach for all archaeological sites, as well as for the Lawrence House, to set adequate guidelines for interpretation and to ensure their long-term conservation;
- R7. Enforce the legal provisions in relation to tourism camps, remove all illegal tourism camps from the property, and ensure the rehabilitation of any degraded areas:
- R8. Undertake an Environmental Impact Assessment (EIA) and a Heritage Impact Assessment (HIA) of current tourism activities and facilities in the property to determine their impact on its Outstanding Universal Value (OUV), in conformity with IUCN's World Heritage Advice Note on Environmental Assessment and ICOMOS' Guidelines on Heritage Impact Assessment;
- R9. On the basis of the results of the above-mentioned EIA and HIA, develop a tourism strategy for the property and its buffer zone (possibly within the framework of the UNDP/GEF project), which should include:
 - d) an assessment of the property's tourism carrying capacity, and the definition of a maximum number of tourist camps allowed in the property and its buffer zone:
 - e) diversification of areas to be visited to enhance visitor experience;
 - f) improvement of control measures and safety considerations, including by marking designated routes and walkways, and erecting viewing platforms to give visitors a better view of rock art sites, using appropriate materials that blend into the landscape:
- R10. Ensure adequate interpretation panels at all identified sites, as well as improved communication and promotion of the property as a whole, re-open the interpretation centre at the visitor's centre, and include interpretation of cultural and natural values at proposed museum sites;
- R11. Develop a plan for the management of liquid waste generated by Rum village and increasing tourism, while duly taking into account the fragile character of the natural landscape and exceptional cultural values, and ensure by means of an EIA and HIA that any waste treatment facilities would not negatively impact on the property's OUV;
- R12. Ensure strong and effective coordination between all stakeholders at the regional and national level in the implementation of the management plan, including by:
 - d) disseminating the Memorandum of Understanding (MoU) between the Ministry of Tourism and Antiquities/Department of Antiquities (DoA) and the Aqaba Special Economic Zone Authority (ASEZA) among all stakeholders, and share the required expertise in cultural heritage management, conservation and archaeology to ensure the integrated management of the natural and cultural values of the property;
 - e) include the MoU in the new management plan, and undertake a formal review of the MoU after two years to assess its effectiveness;
 - f) urgently appointing a cultural resource officer with field experience, as well as an earth sciences specialist, to be involved in the management of the property, and ensure that the cultural resource officer in particular is given opportunities to participate in World Heritage training activities, preferably regional workshops for cultural heritage, territorial management courses at ICCROM and workshops related to the HEADS thematic programme;
- R13. Revise the draft 2014-2018 Management Plan, in order to:

- e) provide adequate explanations for the revisions of the boundaries (see also recommendation R12) especially in relation to Rum Village and its approach road:
- f) ensure that the OUV is fully reflected, including for the cultural heritage, based on the statement of OUV that was adopted by the World Heritage Committee at its 36th session (Saint Petersburg, 2012);
- g) fully integrate the outcomes of the following studies (received by the World Heritage Centre only after the mission):
 - i. revisions to the Wadi Rum Protected Area (WRPA) tourism development and visitors' management plan dated 14 March 2013;
 - ii. the Cultural Heritage Management Plan (Wadi Rum PA);
- h) integrate all the other recommendations made by this mission that relate to the management of the property;
- R14. Building on existing partnerships, ensure sustainable funding for the site management and benefits for local communities, while recognizing that the primary responsibility for covering the costs of the implementation of the management plan of the property lies with ASEZA;
- R15. Carefully consider the need for a boundary modification of the buffer zone, taking into account:
 - d) the essential role played by the buffer zone in the protection of the property by regulating economic activities;
 - e) previous concerns raised by IUCN at the time of its evaluation of the property's nomination, in relation to the originally proposed excision from the property of Rum Village and its approach road;
 - f) the procedures for the modification of the boundaries of World Heritage properties as laid out in Chapter III.I of the *Operational Guidelines for the Implementation of the World Heritage Convention*.

The mission also makes the following additional recommendations:

- R16. Noting the importance of the intangible heritage related to the Bedouin tribes in the area, the mission recommends that the State Party provides, in the visitor centre, adequate communication, interpretation, and promotion of the *Cultural Space of the Bedu in Petra and Wadi Rum* recognized in 2005 under the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, to further explain the living heritage of the cultural landscape of Wadi Rum and the exceptional interaction between people and the desert environment;
- R17. Take into account lessons learnt from recent projects, funded through the 2003 Convention, in future community centred projects, and ensure that the close links between the tangible cultural heritage, the intangible living heritage and the natural heritage of the property are adequately reflected in the management of the property.

ANNEXES

Annex I: Terms of Reference.

Joint World Heritage Centre/ICOMOS/IUCN Reactive Monitoring Mission to Wadi Rum Protected Area (Jordan) 28 April – 1 Mai 2014

Terms of Reference

In accordance with Decision **35 COM 8B.15** adopted by the World Heritage Committee at its 35th session (UNESCO, 2011), and Decision **36 COM 8B.65** adopted by the World Heritage Committee at its 36th session (Saint Petersburg, 2012) concerning the Statements of Outstanding Universal Value of the property, and taking into consideration the Operational Guidelines for the Implementation of the World Heritage Convention, the reactive monitoring mission shall undertake the following tasks:

Review the overall state of conservation of the property and specifically:

- a) development of a cultural heritage database to provide detailed and comprehensive inventories and maps of the 25,000 petroglyphs, 20,000 inscriptions, and 154 archaeological sites, in order to define clearly the attributes of OUV and to serve as a basis for conservation and monitoring;
- b) progress with the conservation of the rock art sites and inscriptions, vulnerable to fading and deterioration and in some cases to modern graffiti; of the archaeological sites, and of the Nabataean water reservoirs and temple site;
- that the management plan provides effective policies, backed by the necessary staff and financial resources, to enable effective management of the property and its buffer zone, including the regulation of development activities, tourism infrastructure and facilities, and whether a strategy for visitor management including vehicle route control within the property has been developed;
- d) the implementation of the management plan, provisions for additional and appropriately trained staff within the management unit for the property focused on research, protection and presentation of the geological, geomorphological and cultural values of the property and engagement of national and international research institutions in the management system for the property;
- e) the implementation of the integrated monitoring programme for both natural and cultural values:
- f) the focus on the management of the cultural attributes of the property fully involving the Department of Antiquities in the management of the property and the Ministry of Environment:
- g) the funding for the natural and cultural components of the site;
- h) Assess concerning the the cultural attributes of the property: the establishment of a solid and liquid waste management system for Rum Village and camping sites, the effective implementation of the strategy for visitor management including vehicle route control, any exterior reconstruction of the archaeological sites, which could impact on their authenticity; and any potential reconstruction works;

The State Party should facilitate necessary field visits to key locations. In order to enable preparation for the mission, it would be appreciated if the following items could be provided to the World Heritage Centre (copied to the Advisory Bodies) as soon as possible:

- a) The management plan for the property, including data on the available human and financial resources;
- b) The visitor management strategy;
- c) Details of work progressed on a cultural heritage inventory;

The mission should also hold consultations with the Jordanian authorities at national, provincial and municipal levels. Particularly, the mission should meet with representatives of the Ministry of Environment, the Department of Antiquities, and the Aqaba Special Economic Zone Authority (ASEZA). In addition, the mission should hold consultation with a range of relevant stakeholders, including i) researchers; ii) NGOs; iii) representatives of local communities, and iv) tourism operators.

Based on the results of the above-mentioned assessments and discussions with the State Party representatives and stakeholders, the mission will develop recommendations to the World Heritage Committee to conserve the Outstanding Universal Value of the property and improve its conservation and management. It should be noted that recommendations will be provided within the mission report (see below), and not during the mission implementation.

The mission will prepare a concise joint mission report, in English or French, following the World Heritage Centre reactive monitoring mission report format, and no later than **30 May 2014** for review by the World Heritage Committee at its 38th session (Doha, 2013).

Annex II: Decision of the World Heritage Committee at the time of the inscription of the property (UNESCO, 2010)

Decision: 35 COM 8B.15

The World Heritage Committee,

- 1. <u>Having examined</u> Documents WHC-11/35.COM/8B, WHC-11/35.COM/INF.8B1 and WHC-11/35.COM/ INF.8B2.
- 2. <u>Inscribes</u> the Wadi Rum Protected Area, Jordan, on the World Heritage List on the basis of criteria (iii), (v) and (vii);
- 3. Takes note of the following provisional Statement of Outstanding Universal Value:

Brief synthesis

Wadi Rum Protected Area (WRPA) is located in the southern part of Jordan close to the border with Saudi Arabia, around 290 km south of Amman and 60 km northeast of the coastal city of Aqaba. The total area of WRPA is 74,200 ha. The property extends approximately 42 km from north to south and approximately 33 km from east to west. A buffer zone of c.5 km in width, with some excepted areas, surrounds the area and is stated as having a total area of 60,000 ha.

Wadi Rum is a major feature within the Hisma desert lying to the east of the Jordan Rift Valley and south of the steep escarpment of the central Jordanian plateau. Its natural values include desert landforms developed within continental sandstones. These landforms have been developed under the influence of a combination of various controlling factors such as lithology, tectonic activities (including rapid uplift, numerous faults and joints) and surface processes (including various types of weathering and erosion associated with desert climate as well as humid climates in the past), representing million years of ongoing landscape evolution.

Widespread petroglyphs, inscriptions and archaeological remains testify to 12,000 years of human occupation and interaction with the natural environment, illustrating the evolution of pastoral, agricultural and urban human activity in the Arabian Peninsula and the environmental history of the region.

Criterion (iii): The Wadi Rum Protected Area bears a unique testimony to the practice of rock art and inscriptions that has been on-going for millennia. The combination of 25,000 petroglyphs with 20,000 inscriptions and their continuity over a period of at least 12,000 years sets Wadi Rum apart from other rock art and/or inscription sites. The petroglyphs, representing humans and animals, are engraved on boulders, stones, and cliff faces. They trace the evolution of human thought, the long term patterns of pastoral, agricultural and urban human activity in the Arabian Peninsula, and the environmental history of a distinct region that has evolved climatically from mildly humid to semi-arid. The engravings indicate an elaborate sense of aesthetics and a pictorial culture. Numerous inscriptions in four different North-Arabian scripts testify to the very early emergence of alphabets from iconic representations, and widespread literacy among pastoral societies in the Arabian Peninsula.

Criterion (v): The variety of landforms at Wadi Rum has played an essential role in fostering human settlement and, as a result, the development of sophisticated intellectual activity that is documented by abundant petroglyphs and rock inscriptions. This graphic testimony to diverse cultural traditions and civilizations over millennia is one of the world's richest sources of documentation. Nowhere else in the world can one find such a wealth of information that enables the study and understanding of the continuum of settled and mobile lifestyles in a desert landscape illustrating the adaptability and ingenuity of human communities who have made the most of scarce resources to sustain continuous presence after the climate became dryer in the Bronze Age.

Criterion (vii): Wadi Rum is recognised globally as an iconic desert landscape, renowned for its spectacular series of sandstone mountains and valleys, natural arches, and the range of narrow gorges, towering cliffs, massive landslides, and dramatic cavernous weathering forms displayed. Key attributes of the aesthetic values of the property include the diversity and sheer size of its landforms, together with the mosaic of colours, vistas into both narrow canyons and very large wadis, and the scale of the cliffs. The property displays, in a protected setting, an exceptional combination of landforms resulting from drainage incision, severe weathering by salt, biological and other processes, and the undermining of steep sandstone cliffs by these weathering processes, together with the world's most spectacular networks of honeycomb weathering features. Its associations with the writings of T.E. Lawrence, stressed strongly in the nomination, have ensured a high profile for the property and have reinforced its reputation of the area as a classic desert landscape both globally and within the Arab States.

Integrity

The boundaries of the property include the key cultural and natural attributes and are well designed. Low population density and lack of development impacts have helped maintain WRPA in relatively pristine and authentic conditions. Nevertheless there are a number of threats which require careful and increased attention including mainly the impacts of visitor pressure and car tracks, and to a lesser extent possible encroachment of the village of Rum, groundwater exploitation and firewood collection by local people.

The boundaries of the property have been clearly defined and the 5 km buffer zone surrounding the property is adequately configured to address threats to the area arising from outside its boundaries.

Authenticity

The rock art remains in its original setting, largely unaltered except for the effects of weathering which has led to fading by rain and wind erosion, leaving some hard to distinguish. In addition in some cases, there is the addition of modern graffiti. However the fact that so many have been documented means that their ability to convey the cultural traditions of the people who made them has been captured and they can be studied.

Protection and management requirements

WRPA was established as a protected area in 1997 to conserve the desert landforms and ecosystems along with their associated cultural values. The property lies within the Aqaba Special Economic Zone (ASEZA) and was designated as a Special Regulations Area in perpetuity in two phases. In 1997 54,000 ha was designated and in 2002 a further 18,000 ha was added.

The entirety of the property falls within a special regulation considered the strongest governance framework for a protected area in Jordan.

The primary plan guiding the management and development program of WRPA is the ASEZA land use plan which covers the whole governorate of Aqaba. The property requires the maintenance and continuous updating of an effective management plan.

4. <u>Requests</u> the State Party to ensure that the management plan provides effective policies, backed by the necessary staff and financial resources, to enable effective management of the property and its buffer zone, including the regulation of development activities, tourism infrastructure and facilities, and to develop a strategy for visitor management including vehicle route control within the property;

- 5. <u>Also requests</u> the State Party to ensure, in implementing the management plan, provision for additional and appropriately trained staff within the management unit for the property focused on research, protection and presentation of the geological, geomorphological and cultural values of the property and engagement of national and international research institutions in the management system for the property;
- 6. <u>Recommends</u> the State Party to ensure the implementation of the integrated monitoring programme for both natural and cultural values;
- 7. <u>Also recommends</u> strengthening the focus on the management of the cultural attributes of the property fully involving the Department of Antiquities in the management of the property and the Ministry of Environment;
- 8. <u>Encourages</u> the State Party to extend funding for the natural and cultural components of the site;
- 9. <u>Further recommends</u> that the State Party consider the following in relation to the cultural attributes of the property:
- a) Establish a solid and liquid waste management system for Rum Village and camping sites,
- b) Ensure the effective implementation of the strategy for visitor management including vehicle route control,
- c) Observe with great caution what concerns exterior reconstruction of the archaeological sites, which could impact on their authenticity. The remains appear to be sufficient to enable understanding, and reconstruction works should cease;
- 10. <u>Further requests</u> the State Party to invite a joint World Heritage Centre and Advisory Bodies mission to the property to assess progress on the above recommendations and report back to the World Heritage Committee at its 38th session in 2014.

Annex III: Decision 36 COM 8B.65 (Statements of Outstanding Universal Value of the twelve properties inscribed at the 35th session of the World Heritage Committee, UNESCO, 2011) adopted at the 36th session (Saint Petersburg, 2012)

D.2 ARAB STATES

Property	Wadi Rum Protected Area
State Party	Jordan
ld. N°	1377
Dates of inscription	2011

Brief synthesis

Wadi Rum Protected Area (WRPA) is located in the southern part of Jordan, east of the Rift Valley and south of the steep escarpment of the central Jordanian plateau. It comprises an area of 74,200 hectares. WRPA's natural values include desert landforms developed within continental sandstones. These landforms have been developed under the influence of a combination of various controlling factors, such as lithology, tectonic activities (including rapid uplift, numerous faults and joints) and surface processes (including various types of weathering and erosion associated with desert climate as well as humid climates in the past), representing million years of ongoing landscape evolution.

Widespread petroglyphs, inscriptions and archaeological remains testify to 12,000 years of human occupation and interaction with the natural environment, illustrating the evolution of pastoral, agricultural and urban human activity in the Arabian Peninsula and the environmental history of the region.

Criterion (iii): The rock art, inscriptions and archaeological evidence in WRPA can be considered an exceptional testimony of the cultural traditions of its early inhabitants. The combination of 25,000 petroglyphs, 20,000 inscriptions, and 154 archaeological sites provides evidence to continuity of habitation and land-use over a period of at least 12,000 years. The petroglyphs, representing human and animal figures, are engraved on boulders, stones, and cliff faces. They provide evidence of long-term patterns of pastoral, agricultural and urban human activity in the property. Engravings indicate an elaborate sense of aesthetics in a pictorial culture, and the archaeological findings span all eras from the Neolithic to the Nabataean. Thamudic, Nabataean and numerous Arabic inscriptions in four different scripts testify to the widespread literacy among its pastoral societies.

Criterion (v): The variety of landforms at WRPA has played an essential role in fostering human settlement. The rock art, inscriptions and water catchment systems document the settlements of successive communities, which developed in areas of mobile animal husbandry and agriculture and form part of a wider context of human interaction with the semi-arid eastern desert environment of the Arabian Peninsula. WRPA assists the understanding of the continuum of settled and mobile lifestyles in a desert landscape illustrating the adaptability and ingenuity of human communities who have made the most of scarce resources to sustain continuous presence after the climate became dryer in the Bronze Age (3rd millennium BC).

Criterion (vii): WRPA is recognised globally as an iconic desert landscape, renowned for its spectacular series of sandstone mountains and valleys, natural arches, and the range of narrow gorges, towering cliffs, massive landslides, and dramatic cavernous weathering forms displayed. Key attributes of the aesthetic values of the property include the diversity and sheer size of its landforms, together with the mosaic of colours, vistas into both narrow canyons and very large wadis, and the scale of the cliffs. The property displays, in a protected setting, an

exceptional combination of landforms resulting from drainage incision, severe weathering by salt, biological and other processes, and the undermining of steep sandstone cliffs by these weathering processes, together with the world's most spectacular networks of honeycomb weathering features. Its associations with the writings of T.E. Lawrence, stressed strongly in the nomination, have ensured a high profile for the property and have reinforced its reputation of the area as a classic desert landscape both globally and within the Arab States.

Integrity

Since the identification of Wadi Rum as a potential nature reserve in 1978 the various landforms and cultural resources have been managed in a shared framework, which prevented extensive development impacts and maintained the landscape character of the property. The buffer zone of Rum Village contains significant cultural property values and the cultural landscape character of the property reaches even beyond the mostly 5 kilometers perimeter of the buffer zone.

Authenticity

The rock art remains in its original setting, largely unaltered except for the effects of weathering, which has led to its fading as result of rain and wind erosion, leaving some petroglyphs hard to distinguish. In addition modern graffiti has a negative impact on several of the original drawings and inscriptions. However, the fact that so many petroglyphs and inscriptions have been documented means that their ability to convey the cultural traditions of the people who made them continues and that they qualify as an important resource for research.

Protection and management requirements

WRPA was established in 1997 following cabinet decision no. 27/11/3226 (1997) and extended in 2002, following decision 224/11/1/986 (2002). It is further recognized as an archaeological site under the Law of the Department of Antiquities no. 21 (1988) and constitutes a Special Regulation Area under the Administration of the Aqaba Special Economic Zone. In addition to the existing protection for the property, special consideration may need to be given to archaeological artefacts to prevent their removal from the property.

The primary plan guiding the management and development program of WRPA is the Aqaba Special Economic Zone land use plan, which covers the whole governorate of Aqaba and is administrated by the Aqaba Special Economic Zone Authority. The property has an up to date management plan and an effective management unit, including rangers and other staff is dedicated to the management of the property. The management plan should provide emphasis to the management of the natural and cultural values of the property. A comprehensive survey and inventory of the natural and cultural resources, conservation and interpretation programme of the values of the property, and cooperation with antiquity authorities as management partners are all required. The WRPA requires continuous monitoring, preventive conservation of natural and cultural resources, and periodic updating of the management plan.

A number of threats that have been identified require careful attention. In this context priority should be given to the impacts of visitor pressure, in particular car tracks and tourism infrastructure, but also the potential encroachment of the village of Rum, groundwater exploitation and firewood collection by local people. The wider tourism and planning policies for the property, its buffer zone and wider setting also should prioritise the protection of its Outstanding Universal Value.

Annex IV: Programme for the Mission

Aqaba Special Economic Zone Authority Wadi Rum Protected Area World Heritage Property Joint World Heritage Centre/ICOMOS/IUCN Reactive Monitoring Mission to Wadi Rum Protected Area World Heritage Property (Jordan)

28th April to 1 May 2014

Day one: Monday 28th April 2014

Reception by WRPA Manager in Amman 9:00am

- 1- Meeting with Department of Antiquities 10:00-11:00am
- 2- Meeting with UNDP Biodiversity in Tourism Sector Project 12:00-1:00pm
- 3- Meeting Green Key Project JREDS 2:00-3:00pm
- 4- Travel to Aqaba Overnight in Aqaba 4:00-8:00pm

Day two: Tuesday 29 April 2014

- 1- Meeting with ASEZA senior Management in Agaba10:00-11:00am
- 2- Travel to Wadi Rum 1:00pm
- 3- Meeting with WRPA Manager with welcome lunch 2:00-3:00pm
- 4- Visit the visitor center and facilities 3:00-4:00
- 5- Field visit to WRPA Wadi Rum village, local associations 4:00-6:00pm
- 6- Dinner and overnight in Wadi Rum -

Day one: Wednesday 30th 2014

- 1- Meeting the WRPA Management committee 10:00am-12:00noon
- 2- Meeting the WRPA technical and administrative team 12:00-1:00pm
- 3- Field visit to WRPA 1:00-6:00pm
- 4- Dinner and overnight in Wadi Rum -

Day one: Thursday 1st May 2014

- 1- Field visit to the buffer zone 8:00-11:00am
- 2- Meeting with the local municipality 11:00am-12:00noon
- 3- Meeting with private sector representatives 1:00-2:00pm
- 4- Wrap up/debrief meeting with WRPA Manager with lunch 2:00-3:00pm
- 5- Mission conclusion and departure to Amman

Annex V: Composition of mission team

Dr Mechtild Rossler

Deputy Director
UNESCO World Heritage Centre

Mr. Chris Cleere (United Kingdom)

Representative of ICOMOS International

Mr Maher Mahjoub

Representative of IUCN, North Africa Programme Coordinator

IUCN Mediterranean Cooperation Centre, Malaga (Spain)

Annex VI: List and contact details of people met

LIST OF PERSONS MET DURING THE MISSION

1. Meetings with the State Party Authorities of Jordan Amman, on 28. April 2014

Ministry of the Environment:

Mr Raed Bany Hany, Director of Nature Protection, Ministry of the Environment Mr Saleh Alnoimat, Head of the Conservation Department in Wadi Rum, Mr Ma'en Smadi, Head of Protected Areas, Royal Society for the Conservation of Nature (RSCN)

Ministry of Tourism and Antiquities, Department of Antiquities (DoA):

H.E Dr Monther Jamhawi, Director General
Mr Husam Hjazeen, Haed World Heritage Section (Culture Focal Point)
Ms Hoda Kilani, Museums Directorate
Mr Abdelrahim Aldwikat, Assistant Director General for Technical Affairs

2. Meetings with other organizations in Amman

UNDP: Mr Mohammad J. Alatoom, Environment Programme Analyst **Royal Marine Conservation Society of Jordan** (JREDS) – Mr Faisal Abusondos (Executive Director) and Ehab Eid (Programme Director)

3. Meeting with Agaba Special Economic Zone Authority

Dr. Eng. Muhanned Adnan Hararah (Commissioner for Environment & Health Control)

4. Meetings at the Visitor Centre of Wadi Rum and during field visit with different stakeholders including NGOs and civil society on 29. and 30 April 2014

Mr. Oussama Abdel Fattah (Captain Camp owner)

Mr. Faissal Al Zawaideh (President of Development Unit, municipality of Disa)

Mr Atya Awdeh Alzagidah (Chair Diseh Society)

Mr Abdallah Azad Alzalabiah (Chair Rum Society)

5. Meetings with the Site Management Team at Wadi Rum

Mr Maned Bakhet Azawidah, Head, Tourism Division

Mr Awad Mohammad Almazneh, Social development and awareness

Mr Mohammed Domian Zalabith, Supervisor Visitor Centre

Mr Abdarahman Alhsaseen, Manager Oryx Project

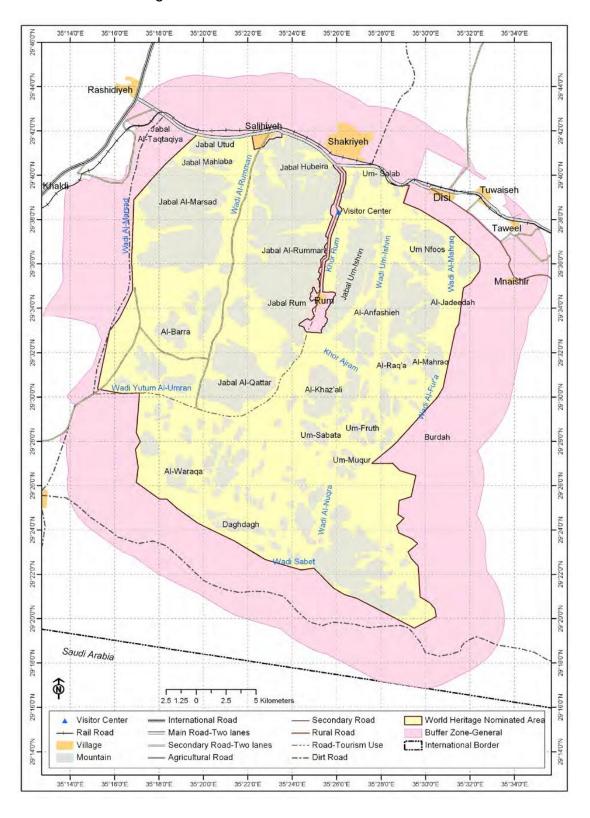
Mr Nasser Alallh Zawaiden, Administrative Supervisor

Mr Abdallah Nasser Alsweelhin, Awareness Officer

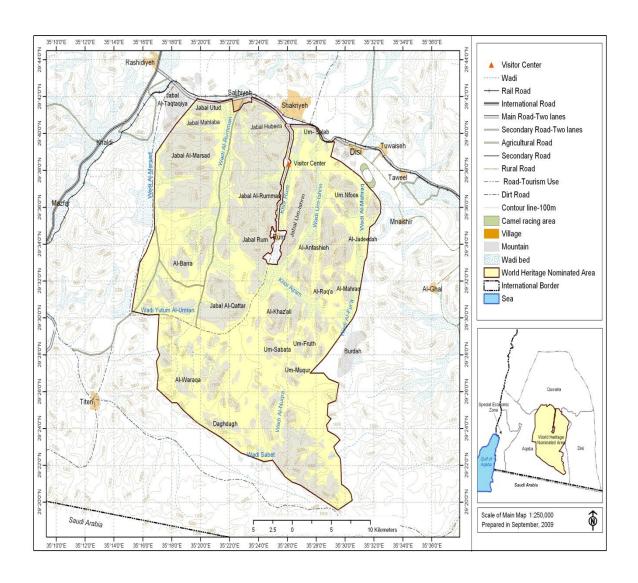
Note: the mission team was accompanied for parts of the itinerary by: UNESCO Representative in Jordan - Ms Costanza Farina, and Ms Andrea Richards and Giorgia Cesaro, both UNESCO Amman; Ms Rossler also met with the Jordan Museum staff – Mr Yosha Alamri, Museum Curator, prior to the mission.

Annex VII: Maps

1. Map submitted with the original nomination



2. Maps from the Management Plan: Wadi Rum Protected Area Map



Annex VIII: Documents received

- Hardcopy of the Draft Management Plan (2014-2018)
- National Criteria for Desert Eco-Friendly Camps, Jordan (USAID/JREDS/FEE)
- MEGA Jordan brochure (Jordan's National Heritage Documentation and Management System)
- Wadi Rum introductory guide (map)
- Regulations for Archaeological Excavations and Surveys in Jordan issued pursuant to the provisions of the Jordanian Antiquities Law, Number 21 for the year 1988 as amended

Received after the mission:

- Revisions to the Wadi Rum Protected Area (WRPA) tourism development and visitors' management plan dated 14 March 2013;
- Wadi Rum PA: Cultural Heritage Management Plan (no date);

Annex IX: Photos

Photo 1 (front page) and 2: The Visitor Centre at Wadi Rum



Photo 3 Geological formations at Wadi Rum



Photo 4 The Arabian Oryx Project

