
Wadi Rum (Jordan) No 1377

Official name as proposed by the State Party

Wadi Rum Protected Area

Location

Aqaba Special Economic Zone
Hashemite Kingdom of Jordan

Brief description

Wadi Rum is a spectacularly scenic desert landscape of flat, sandy valley beds bounded by towering red sandstone cliffs and rock formations created by millennia of geological and climatic processes. 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. North-Arabian inscriptions appear to associate Wadi Rum with the Qu'ran.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage convention, this is a *site*.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (January 2008), paragraph 47, the property is also nominated as a *cultural landscape*.

[Note: The property is nominated as a mixed cultural and natural site. IUCN will assess the natural significances while ICOMOS assesses the cultural significances]

1 Basic data

Included in the Tentative List

8 November 2006

International Assistance from the World Heritage Fund for preparing the Nomination

None

Date received by the World Heritage Centre

1 February 2010

Background

This is a new nomination.

Consultations

ICOMOS has consulted its International Scientific Committees on Rock Art and on Archaeological Heritage Management and several independent experts.

Literature consulted (selection)

Betts, A.V.G. (ed), Helms, S.W., et al, *Excavations at Jawa 1972-1986*, Edinburgh University Press, Edinburgh, c1991.

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Jobling, W.J., 'Preliminary Report on the Archaeological Survey between Ma'an and 'Aqaba' in *ADAJ* 25, 1981.

Jobling, W.J., 'Aqaba-Ma'an Survey' in *ADAJ* 26, 1982.

Jobling, W.J., 'Preliminary Report of the Sixth Season of the 'Aqaba-Ma'an Epigraphic and Archaeological Survey' in *ADAJ* 29, 1985.

Jobling, W.J., and Tanner, R.G., New Evidence for Early Christianity in the North-West Hejaz in *Papers presented at the Eleventh International Conference on Patristic Studies* held in Oxford 1991, *Studia Patristica* 25, 313-316, Peeters, Leuven, 1993.

Macdonald, M.C.A., and Searight, A., "The Inscriptions and Rock-Drawings of the Jawa Area" in *ADAJ*, 26, 1982.

Ruben, I., and Ghassan, N., *Review of the Archaeology of the Wadi Rum Protected Area*, Second Tourism Development Project of the Royal Society for the Conservation of Nature, 1999.

Tholbecq, L., 'The Nabataeo-Roman site of Wadi Ramm (Iram): A new appraisal' in *ADAJ* 42, 241-254, 1998.

Zayadine, F., and Farès-Drappeau, S., 'Two North-Arabian Inscriptions from the Temple of Lat at Wadi Iram' in *ADAJ* 42, 255-258, 1998.

Technical Evaluation Mission

A joint ICOMOS/IUCN technical evaluation mission visited the property from 20 to 26 September 2010.

Additional information requested and received from the State Party

Additional information was requested from the State Party on 22 September 2010 as to whether there is an inventory and map of the major sites of petroglyphs and inscriptions, and of the archaeological sites; what conservation and maintenance is being undertaken, and why there is a strip of buffer zone penetrating the property which includes the access road and Rum Village and whether this includes petroglyphs, inscriptions and/or archaeological remains.

A response to this was received on 8 November 2010 and this information is included under the relevant sections below.

Date of ICOMOS approval of this report

10 March 2011

2 The property

Description

The nominated property covers a total of 73,300ha and is buffered by a surrounding area of 60,000ha. Wadi Rum Protected Area lies around 290km south of Amman east of the Jordan Rift Valley and south of the steep escarpment of the central Jordanian plateau. It forms a major part of the Hisma desert of southern Jordan and northern Arabia, which is mainly a Palaeozoic sandstone plateau with elevations up to 1,850m. The area extends from Qaa' Disi in the north-east to Jebel Al Fara'a in the south-east and to Wadi Sweibit in the south-west. It has a true desert climate – hot and dry.

Rock Art and Inscriptions

Human settlement going back to at least 10,000 BC is said in the nomination dossier to be documented within the site by over 25,000 petroglyphs (images engraved or painted on rocks) and around 20,000 examples of rock epigraphy (engraved inscriptions) on boulders and the rock faces of cliffs and hills. The rock art depicts anthropomorphic and zoomorphic figures and abstract forms and is found in a relatively limited and coherent area that comprises the wadis Hafir, Sabit, Umm Sahn, Saladeh and Rum. Dated through studies of patina, techniques of execution, subjects and association with dated human settlements, the practice of rock engraving in Wadi Rum extends, it is claimed, without interruption throughout the Neolithic to the modern era.

ICOMOS notes that only the rock art mentioned in accompanying inscriptions can be accurately dated. Other techniques give relative results. The vast majority of inscriptions date from about the second century BCE to about the fourth century CE, with a relatively small number of medieval Arabic graffiti and some modern Arabic ones. More accurate dating of the age of human settlement in the area is given by the excavated Neolithic archaeological sites.

Depiction of fauna throughout the period documents the evolution of climate and of human domestication of animals (cattle, camels, ostriches) and includes wild animals now extinct such as the leopard and Arabian Oryx. Images of feet and hands at Jebel Khaz'ali, Jebel Um Ishrin and 'Areq 'Asegeh may represent worshippers and indicate religious significance. The nomination dossier describes a thematic typology proposed by Borzatti von Löwenstern (*Quadri di Petra. 8000 anni d'arte nel deserto*, Casa Editrice Nuova S1, Bologna, 2005) which identified hunting scenes; collective fights and duels; domesticated animals with humans; dance scenes or ritual practices; erotic scenes and parturition; feet and hands; abstract motifs and tribal marks. While the themes are constant, changes in style of execution over time are evident as well as depicted weapon and animal types.

In conjunction with the rock art in Wadi Rum is an extensive corpus of pre-Arabic scripts either side by side with pictorial petroglyphs or overlaying them. According to the nomination dossier, Borzatti von Löwenstern suggested the evolution of pictograms into pictographs, then into ideogrammatic expression and alphabetical script, based on a corpus of over 1,600 painted, standardised geometrical motifs surveyed in the broader Wadi Rum area. He dated the early pictographs to 5,000-4,000BC. The earliest dated textual inscriptions known as Thamudic from the Thamud tribe based near Meda'in Saleh in Saudi Arabia are 3,530-2,120 years old. They indicate very early literacy among the pastoral nomads of the region. The script spread out from northern Arabia and continued in use until at least the 11th century AD. At an earlier period Lihyanite, Safaitic and Aramaic alphabetical writing systems developed from it; Nabataean developed from Aramaic, and Arabic from Nabataean. With the rise of Islam, Arabic spread all over the region. Within the nominated site texts are found in all these north Arabian scripts. They include dedicatory inscriptions to pre-Islamic deities such as the goddess 'Allat (Lat) usually in Thamudic but also in Nabataean near the temple site at Rum; signatures recording personal names and genealogies associated with hunting or fighting scenes; personal names and genealogies in Thamudic and Arabic associated with water catchment and storage installations; funerary inscriptions; recent names and genealogies in Arabic along hunting routes in the mountains and recent texts in Arabic expressing love and amorous adventures.

The identification of Wadi Rum with Iram and the tribe of 'Ad, mentioned in the Qu'ran, has been proposed by scholars who have translated Thamudic and Nabataean inscriptions referring to both the place Iram and the tribes of 'Ad and Thamud by name. The Qu'ran (89: 6-13) refers to the 'Ad people; the unique high peaks of Iram, and the Thamud who carved the rocks there, and has been interpreted as an account of how 'Allah dealt harshly with the people of 'Ad who were corrupted by wealth and the delights of the flesh.

Archaeological sites

According to the Management Plan, 154 archaeological sites have been identified in the nominated area spanning all eras from the Neolithic and including many Nabataean antiquities. Many sites have Thamudic or Nabataean inscriptions with occasional examples of Greek. The seven most important sites were identified by Ruben and Nasser in 1999 and are listed with brief descriptions in the Management Plan 2003-2007 extended to 2010, which was submitted as part of the nomination dossier. However they are not cited as attributes of Outstanding Universal Value in the nomination dossier. The inventory compiled by Ruben and Nasser in 1999 of 151 sites is on the Wadi Rum web site with descriptions and publication references.

In response to ICOMOS's request for an up-to-date inventory and map of significant archaeological and rock art and inscription sites, the State Party has provided an enlarged list of 13 most significant sites, two of which are

in the buffer zone and an additional site is outside the buffer zone. The 14 sites are:

1 The Nabataean temple at Rum built between 9BC and 40AD

Excavations in 1932, 1959 and the 1960s established that the Nabataean temple was first built in the reign of Aretas IV (9BC-40AD) on the site of an earlier Thamudic temple and went out of use by the 4th century AD. A Thamudic inscription mentioning the tribe of 'Ad was found here on a stone reused in the second building phase. The villa with private rooms attached, was built and decorated in a fairly luxurious style (painted plaster walls) sometime in the reign of Aretas IV. A similar date is proposed for the baths, which were clearly built by the Nabataeans but following the Roman model. With its stone hypocaust in the *calderium*, this may well be the earliest hypocaust baths in Jordan. As well as being a cultic centre, the temple is thought to have also functioned as a civic and administrative centre. The site is visited by many tourists, given its convenient location near the village.

2 The spring Ain Shallaleh (Al-Shalala) and Nabataean shrine

This is one of the main springs that feeds the Rum temple and village area and is marked by a small Nabataean shrine. There are inscriptions that consist partly of dedications to several deities, *'Allat*, *al-Uza*, *al-Kutba*, *Balshamin* and *Dushara* and one names the place *Iram* and is dated to the reign of Rabel II. Others are invocations to be remembered by *'Allat* made by individuals, some of whom were craftsmen who are thought to have worked on the construction of the temple.

3 A series of 22 pre-Islamic shrines

These line a corridor on the eastern slopes of Jebel Rum, 2km before and 2km after Rum Village (until Abu 'Aina spring), and the south-western slope of Jebel Umm Ishrin from the village to the tip of the mountain. The shrines comprise square or rectangular stone enclosures with a betyle or stone representing the dwelling of the divinity, standing in the centre.

4 The Abu 'Aina spring and its Thamudic inscriptions on a boulder.

5 The Neolithic village of Abu Nakheileh

This small Neolithic village is situated at the foot of the mountain just below the spring known as Ain Abu Nakheileh. It was probably a seasonal base camp, which was not occupied over a long period. The site has been heavily damaged by passing vehicles going in and out of the bay to collect water from the modern cistern and taking tourists to see the inscriptions on the boulder nearby.

6 The Khaz'ali siq

In 1932 Savignac noted the inscriptions and rock drawings in the cleft in Khaz'ali and published some of them in 1934. There are Thamudic and Kufic inscriptions along with representations of people, feet and animals. They form a visually impressive collection and are one of the

major tourist attractions in the Wadi Rum area. The inscriptions and rock art are currently in good condition, largely because they are mostly out of reach of both people and natural weathering factors.

7 The Ain al-Qattar spring and boulder with Thamudic inscriptions

The inscriptions on the boulder mention the tribes of 'Ad and Shaqalat, and a name similar to the one mentioned on the foundation stone of the temple of Allat at Rum. There are also traces of a Neolithic settlement, and a large Islamic graveyard.

8 Um El-Qeseir

Situated on the west side of Wadi al Beidha, against a huge stone abutting Jebel Um Hariq there is a small Nabataean building about 12 x 5 metres. The function of this building is not clear. Nabataean and Thamudic inscriptions are to be found nearby, including to "*Allat the goddess which is at Iram*". Some Neolithic-Chalcolithic flints and pottery sherds of all dates were found nearby along with some stone circles.

9 Jebel Mughra

Around this small mountain range eleven dams with numerous Thamudic inscriptions have been documented. Several of the dams are still in use by Bedouin herders today.

10 Udayb er-Rih

A large Neolithic agricultural settlement with traces of olive farming and very ancient hydraulic installations still used by Bedouin herders today. Pottery finds attest occupation until the Abbasid period. Numerous examples of rock art include depictions of camels, and there are several Thamudic inscriptions.

11 Wadi Rumman

Rock art site with geometric signs, feet and hands, animal and hunting scenes superimposed on two large boulders.

12 Ruais Salim (in buffer zone)

Large Neolithic agricultural settlement with hydraulic installations and a large number of petroglyphs and Thamudic inscriptions.

13 Jebel Burdah (in buffer zone)

A major Nabataean dam with inscriptions.

14 Jebel Kharazeh (outside the buffer zone)

Located 15km north of the Protected Area; major Nabataean hydraulic installations (several dams) and caravan outpost between the two Nabataean settlements of Rum and al-Humayma. The site has traces of pre-historic occupation including large carved human figures and other petroglyphs.

The above sites listed in the additional information provided by the State Party do not include two of the sites in the list of seven significant sites identified by Ruben and Nasser:

Hedeib Al-Fala

This is an area of inselbergs at the east end of Khor al Ajram where a variety of antiquities have been recorded by different scholars. There are Thamudic inscriptions, including a rare example in black paint (that is not incised) (Jobling 1982) and one Nabataean inscription, as well as rock art. At the foot of a hill is a large area (250 x 400m) of circular house foundations which are associated with flints and predominantly Chalcolithic sherds.

Bir Rum Al-Atiq

This Nabataean dam lies across the northern entrance to Wadi Rum. It was initially identified by Harding who incorrectly located it as being a short distance east of the mouth of Wadi Rumman. There is a 50m long dam wall with a rectangular enclosure at the east end. Nearby there are some cairns and graves, which may be earlier than the dam, a pottery scatter of mainly Nabataean sherds and a Thamudic inscription. The site has been disturbed by vandalism and modern constructions.

ICOMOS notes that the Palaeolithic site of al-Kaaka, which is said in the nomination dossier's History and Development section to be the most important of this era, is also not included in the list of significant sites.

History and development

Tectonic activity, particularly Tertiary uplift has been a major process in the formation of the high desert and mountain peaks of the area. The evolution of the Wadi Rum landscape began with the collision between the Arabian and Anatolian tectonic plates, prior to the opening of the Dead Sea rift which resulted in the migration of the Tethys Sea to the Mediterranean. The Jordanian tableland was uplifted, opening a complex grid of geological faults around 20 Ma that have facilitated ongoing extensive and distinctive erosion. Concentrated erosion along fault lines has formed the iconic large-scale 'chequer-board' landscape of straight wadis and rectangular mountain blocks and created the network of corridors and canyons that typify the Wadi Rum landscape. Ongoing uplift and erosion triggers the collapse of cliff sections and consequent debris on the valley floors, as well as leaving isolated remnants ('inselbergs') of once larger massifs.

Archaeological surveys and excavations indicate that permanent human occupation began in the Upper Palaeolithic period 19,000 years ago and extended through the Roman and Islamic periods to the present. The numerous archaeological sites from the Palaeolithic era, of which the most important is al-Kaaka in Wadi Umm Sahm at a time when the climate was wetter, suggest that the region was densely populated in settlements located near water sources, vegetation and wild game. Sites have been found around the former shores of large inland lakes at Qaa' Disi and Qaa' Um Salab that existed in early prehistory on the northern borders of the nominated area. Other are associated with flints found in rock shelters and caves. The largest Neolithic (8,300-4,500 BC) sites in the nominated area are at Abu Nakheileh and Ruais Salim and consist of the remains of circular or rectangular stone houses that were probably inhabited by groups of semi-

sedentary people exploiting the local wildlife and plants. During the Chalcolithic (c 4,500-3,200 BC) when copper was being mined in nearby Wadi Araba, evidence of flints and pottery usually associated with stone settlement foundations such as at Udayb er-Rih with rock art depictions of cattle indicate thriving human occupation. In the more arid climate of the Bronze Age, channels, dams and reservoirs near mountain slopes and at the entrance to narrow valleys, and traces of farming activities such as olive growing indicate communities supporting themselves with a combination of animal husbandry and agriculture.

The lack of evidence for Iron Age (c 1,200-539 BC) settlements has been interpreted to suggest a return to a nomadic pastoral lifestyle, an interpretation possibly supported by Biblical accounts of the region. Pottery of this period found at Q'weira (outside the protected area to the north-west) and Wadi Raman has been termed Midianite by scholars who have proposed that the Wadi Rum area is the Iram of the Bible - part of Midian, an area extending from the Jordanian highlands above Wadi Araba into the north-west of Saudi Arabia along the shores of the Gulf of Aqaba. The Midianites were said to be polytheist, have swift camels and to be a confederation of tribes. Some lived in the cities and fortresses of Moab; others led a nomadic life in a more distant region, such as Aram.

It is suggested that some 1.8 million years ago, the Wadi Rum area was a bridge for early migration on the route from Africa to Asia. Much later it became part of the route linking the coastal regions of the Arabian Peninsula with Egypt and the Levant across the Hisma desert for the transport of frankincense and myrrh from Arabia, and copper from Wadi Araba. It was used by the Nabataeans and subsequently formalised by the Romans as the Via Nova Traiana.

By the 4th century BC North-Arabian tribes were breeding camels and goats in the area and practicing some irrigated agriculture to feed their livestock. Numerous Thamudic inscriptions near water catchment basins, dams and cisterns mark ownership. Rock art of the period depicts animals and hunting scenes. Several stone circles with a larger stone standing in the centre, located in the foothills of Jebel Umm Ishrin and Jebel Rum, have been identified as pre-Islamic shrines. From their base in Petra the Nabataeans controlled the trade route linking the Arabian Peninsula to the Mediterranean. Wadi Rum became a Nabataean outpost on the route between Al-Higr (Meda'in Saleh) in Saudi Arabia and Petra. The Nabataean presence is attested by the remains of a temple to the pre-Islamic goddess 'Allat (Lat) near the village of Rum and in numerous rock carvings of deities and inscriptions such as the ones at the Al-Shalala spring nearby and others near water channels and dams in the surrounding mountains. An inscription that records the founding of the original temple by a member of the 'Ad tribe was found on a reused stone in a later phase of the temple. The Nabataean settlement was a focus for commercial and religious activities and the population between the 1st century BC and the 1st century AD has

been estimated at 20,000, well above the current number of inhabitants.

Wadi Rum was largely bypassed during the Roman and Byzantine periods (2nd-7th centuries AD) as trade was diverted through Syria or followed maritime routes along the Red Sea. Numerous petroglyphs attest to continued pastoral population through into the Islamic period and Arabic inscriptions near water sources attest to caravans occasionally crossing the area.

During World War I, the troops of the Great Arab Revolt passed through Wadi Rum and camped in the area. The campaign is attested by Bedouin graffiti and rock drawings of tanks and men with rifles. Following the establishment of the British mandate in Jordan in 1921, borders were created with Saudi Arabia and a Desert Police fort was established at Rum in 1934. The movements of nomads became limited; a school was established for boys and opportunities were created in the armed forces for the tribes. In the late 1960s there was increasing settlement around the fort and in villages established around newly dug artesian wells in Disi. Growing tourism provides employment, while pastoralism continues in the Rum area and agriculture in Disi.

Conservation began in 1979 with the IUCN/WWF recommendation of a network of protected areas including the Wadi Rum area as a representative of the Eastern Desert (Hisma) land type, together with the indigenous flora and fauna and the scenic mountains of Rum. Many scholars have recorded, interpreted and published the rock art and inscriptions and archaeological sites in the area.

As part of the additional information requested by ICOMOS the State Party has advised that over the past 15 years, the Department of Antiquities has licensed three missions to conduct excavations and surveys in the Wadi Rum Protected Area: the excavation and study of the Neolithic settlement at Abu Nakheileh from the mid 1980s to mid-1990s (North California State University); the excavation and study of the bath complex near the temple of Allat in the late 1990s (University of Victoria, Canada); and a complete survey of inscriptions and associated sites and excavation of the Neolithic settlement of Udayb er-Rih, ongoing since 1996 (University of Lyon and Jordanian Department of Antiquities). In addition restoration work has been carried out at the temple of Allat and baths complex; fencing has been authorised for the sites of Udayb er-Rih and Abu Nakheileh; excavated material and artefacts have been conserved, and a data base of site locations is maintained.

3 Outstanding Universal Value, integrity and authenticity

Comparative analysis

The State Party has compared the nominated property with a number of national and international sites including

five World Heritage sites using a set of 13 values for assessment purposes. Of these six are key:

- iconic assemblage of landforms in an integrated desert landscape;
- occurrence within a true desert ecosystem setting;
- aesthetic significance;
- number and age and continuity of rock art and inscriptions;
- illustration by rock art of interaction of human communities with natural environment;
- affiliation with global religious beliefs.

On the basis of these attributes the two national sites discussed, which are natural, not mixed sites, do not measure up. However ICOMOS notes that the Jawa 'black desert' in the basalt area of north Jordan which also contains numerous petroglyphs and inscriptions in addition to the archaeological sites of Jawa and Umm al-Jamal were not considered.

The State Party considered the two World Heritage properties of Al-Hijr Archaeological Site (Madâin Sâlih), Saudi Arabia (2008, criteria (ii) and (iii)), and Petra, Jordan (1985, criteria (i), (iii) and (iv)), which are closely related geologically, geographically, historically and culturally, particularly as the two key centres of the Nabataean trade route that passed through Wadi Rum 100BC – 100AD. However the State Party argues that they differ greatly from Wadi Rum in spite of their similarity in terms of geological aesthetics, in that their significance is essentially related to the aesthetic and architectural achievements of one civilisation.

Similarly, ICOMOS notes that the World Heritage listed Incense Route – Desert Cities in the Negev, Israel (2005, criteria (iii) and (v)), could be compared with the Nabataean use of the site. The four Nabataean towns of Haluza, Mamshit, Avdat and Shivta, associated fortresses and agricultural landscapes in the Negev Desert reflect the trade in frankincense and myrrh from South Arabia to the Mediterranean, in a hostile desert environment from the 3rd century BC until the 2nd century AD. Again, the significance relates to the Nabataean period, whereas the nominated property contains rock art, inscriptions and archaeological sites which attest to the cultural traditions of the peoples from the Neolithic period continuing through the Nabataean into the Islamic and beyond.

Comparison is made in the nomination dossier with Tassili N'Ajjer in the Algerian Sahara (1982, criteria (i), (iii), (vii) and (viii)) and indicates similar natural and cultural values but it is argued that the Wadi Rum area exhibits distinctly iconic landforms and a continuity of rock art, inscriptions and traces of human presence that distinguish it from the Algerian site in terms of global values. In addition it is argued that Wadi Rum, proposed as the Iram of the Qu'ran, has relevance for Islam not evident at Tassili N'Ajjer. Comparison with the Petroglyphs within the Archaeological Landscape of Tamgaly, Kazakhstan (2004, criterion (iii)) indicates similar cultural values in terms of the petroglyphs, altars and cult areas. However there they

are not associated with inscriptions and lack the distinctive geological landscape of the Wadi Rum area. Comparison with the Uluru-Kata Tjuta and Purnululu National Parks in Australia although indicating similar natural and cultural values is recognised in the nomination dossier as not relevant due to the vast differences between the development of human history and civilisation in Australia and that of the Near/Middle East. Comparison with the Pyrénées-Mount Perdu, France and Spain (1997, criteria (iii), (iv), (v), (vii) and (viii)) is also recognised as not relevant in view of the markedly different landforms, geographic and climatic contexts.

The property was also compared with sites at that time not on the World Heritage List: Monument Valley in the Arizona desert, Canyonlands National Park in Utah and China Danxia (2010, criteria (vii) and (viii)). It was concluded that the two US examples while similar arid sandstone landscapes with traces of human occupation, and also rock art in the case of Canyonlands, were not comparable in terms of the integrated landscape of the Wadi Rum area, and lack the range and complexity of features. The Danxia Landform is a remarkable sandstone formation but considered less iconic in terms of features than Wadi Rum and has a humid climate, representing a very different bio-geographic setting.

ICOMOS considers that the property needs to be compared to others in its geo-cultural area in terms of whether the assembly of rock art and inscriptions together with associated archaeological sites can be seen as exceptional. In cultural terms the iconic landforms are an aspect of the property but not one that necessarily defines its value. Rather what needs to be demonstrated is that the assembly of remains in the property is not paralleled by others that reflect similar timeframes and cultural connections. Currently the wider context of the property is not clearly established in order for these comparisons to be made.

ICOMOS does not consider that the comparative analysis justifies consideration of this property for the World Heritage List at this stage.

Justification of Outstanding Universal Value

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Widespread petroglyphs and inscriptions eloquently attest to 12,000 years of human history and the very early development of alphabetical writing, while ongoing land-use reflects a traditional but dynamic Bedouin culture.
- North-Arabian inscriptions identify Wadi Rum as a site specifically mentioned in the Qu'ran (89: 7-8), the Holy Book for over one billion Muslims.

ICOMOS considers that this justification might be appropriate if the comparative analysis can demonstrate more clearly that there are no other properties that

demonstrate similar attributes and that attributes are exceptional.

However the property has been nominated as a cultural landscape. There is therefore a need to demonstrate how the whole landscape might manifest exceptional interactions between people and their surroundings, rather than to demonstrate the significance of the cultural sites related to the rock art and inscriptions.

The landscape needs to be understood in terms of how it reflects the way the place was inhabited over time. The rock art and inscriptions need to be related to the archaeological and other evidence to allow them to contribute evidence for the evolution of settlement.

The evidence so far presented is limited to certain specific sites and cannot be said to substantiate the property as a cultural landscape that demonstrates an exceptional reflection of cultural traditions over time.

Integrity and authenticity

Integrity

The State Party notes that the nominated area comprises the Wadi Rum Protected Area established following the 1979 IUCN/WWF report plus an additional area added in 2002, resulting in an increase from 54,000ha in 1997 to 72,000ha in 2002. The buffer zone comprises an additional 56,300ha of the same target land form. It contains sites of rock art and inscriptions scattered on hills and mountains including at Jebel Kharazeh. From the information available, ICOMOS considers that it is currently not clear that the nominated area satisfactorily encompasses a coherent group of rock, inscriptions and archaeological sites.

Rum Village, although part of the Protected Area, is not proposed as part of the nominated property but is included in the buffer zone. It is at the south end of the strip of buffer zone that follows the road into the Protected Area from the northern boundary. ICOMOS considers that the exclusion of the strip of land currently shown as buffer zone encompassing Rum Village, the Visitors' Centre and access road together with any archaeological sites, petroglyphs and inscriptions within that strip impacts adversely on integrity and should be part of the nominated property.

In response to ICOMOS' request for further information on the buffer zone strip, the State Party stated that the strip does not include the archaeological sites around Rum Village and was excluded because of existing infrastructure, but that the government of Jordan would be ready to include the strip within the nominated property if considered necessary by UNESCO and the Advisory bodies. This follows a workshop organised in October 2010 to address the issue of buffer zone boundaries and the exclusion of the strip.

Authenticity

ICOMOS considers that the rock art remain in their original setting, largely unaltered except for the effects of weathering which has led to fading and 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.

Few archaeological sites within the nominated area have been scientifically excavated; others have been disturbed and are physically unprotected. The conditions of authenticity cannot be said to be met for this key archaeological evidence.

In conclusion, ICOMOS considers that the conditions of integrity have been only partly met due to the exclusion of Rum Village. The conditions of authenticity have been met only in part due to the neglect of the archaeological sites.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (iii), (v) and (vi), and natural criteria (vii) and (viii).

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

This criterion is justified by the State Party on the grounds that the Wadi Rum Protected Area bears a unique testimony to the practice of rock art and inscriptions that has been ongoing 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. The open-air library that is Wadi Rum is a critical site for the study and understanding of the evolution of aesthetics, writing and literacy.

ICOMOS considers that the documented rock art and inscriptions by themselves do not testify to the long period of human continuity at the site. However together with the archaeological sites they could be seen to bear exceptional testimony to the cultural traditions of past

inhabitants of the Wadi Rum area of the Arabian Peninsula over a very long period.

ICOMOS considers that this criterion needs further justification through further demonstration as to how the rock art and the archaeological sites together convey outstanding testimony to the cultural traditions of past inhabitants of the Wadi Rum area of the Arabian Peninsula over a very long period.

ICOMOS does not consider that this criterion has been justified at this stage.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that 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. Here is a record of resource use in this desert and mountain environment 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). This is why the significance of the Wadi Rum Protected Area goes far beyond its north-Arabian context as it represents a uniquely documented instance of human interaction with dry environments of relevance to other arid areas worldwide.

ICOMOS considers that the evidence of the rock art and inscriptions and even the water catchment systems developed in the Bronze Age and used and developed by successive communities in the area for mobile animal husbandry and agriculture are no more or less remarkable than that in other areas of Jordan, throughout the semi-arid eastern desert and into Saudi Arabia. The Wadi Rum area is part of a much wider area demonstrating this kind of interaction with the environment at certain periods of history. In Jordan this has been similarly documented in published rock art and inscriptions around Jawa. The Wadi Rum area does not represent "a uniquely documented instance of human interaction with dry environments".

ICOMOS considers that this criterion has not been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that North-Arabian inscriptions have allowed scholars to identify Wadi Rum with Iram, where the tribe of 'Ad lived. The site and the tribe are mentioned in the Qu'ran (89: 7-8), the Holy Book for over one billion Muslims. According to evidence derived from numerous inscriptions in various alphabets, ancient Iram and the tribe of 'Ad can only have been located in Wadi Rum. The Qu'ranic story of Iram, "the place of the columns", exemplifies divine punishment over a corrupt people. Allah left Iram buried under the sands of the desert, making Iram and 'Ad legends to be spoken of and an exemplary lesson of warning.

ICOMOS considers that evidence is lacking of 'numerous' inscriptions suggesting the connection with Iram, and the identification is by mean of an arguable theory rather than scientific proof. The case as argued for the inscriptional association with Islam needs more substantiation in order to provide a reasonable tangible association with a literary work and belief of outstanding universal significance.

ICOMOS considers that this criterion has not been justified at this stage.

ICOMOS does not consider that the criteria and Outstanding Universal Value have been demonstrated at this stage.

4 Factors affecting the property

Development pressures

The strategic plan of the Aqaba Special Economic Zone Authority (ASEZA) which administers the Wadi Rum Protected Area emphasises its primary role in local economic development while safeguarding the natural and cultural heritage. The property is consequently subject to tourism development pressure, the expansion of Rum Village due to continuous population growth and the encroachment of agricultural and possibly mining activities.

The village boundaries restrict its area to 40.4ha but there is a weak level of architectural awareness and weak compliance with the Rum Village Plan. All other settlements are located outside the Protected Area. There is one paved road of around 10km entering the Area from the north. No other roads or infrastructure are permitted or planned. A few relict agricultural fields are located within the nominated area and a couple of olive groves near Wadi Sabit. No new agricultural activities will be permitted within the Protected Area with the exception of the household gardens in Rum Village as part of a special arrangement. However there are issues of tradition and culture relating to land tenure and tribal conflict over land

rights which affect the adequate enforcement of regulations.

Mining resources exist within the area but mining is prohibited within the Protected Area.

The Oryx reintroduction project being sponsored by Abu Dhabi will require construction of pre-release facilities within the area.

ICOMOS considers that the possible future expansion and development of Rum Village and any facilities involving new structures require anticipation and control in terms of strongly enforceable guidelines. The impact of the Oryx on the archaeological sites needs to be considered and any necessary measures taken to protect the sites from possible damage.

Tourism pressures

According to the nomination dossier, in 2008 the total number of visitors to the Wadi Rum Protected Area was 256,297. All visitors are required to enter the site via the Visitors' Centre constructed in 2003, which includes an interpretation centre, conference room, offices including the office of the Oryx reintroduction program, outlets for local associations and their products, rest rooms and car park. There is also a staff accommodation building and research station.

There is a secondary visitor reception point in Rum Village at a guesthouse, and the village is intended to become a visitor attraction in its own right. A panoramic centre is being developed around the old fort; there are a number of locally run bed and breakfast accommodations, a local handicrafts centre, a camp site and numerous small shops and bazaars.

Neither the Visitors' Centre nor the village are included within the nominated property boundary at present.

Signage is provided at entrances and access points including basic information and regulations.

The primary adverse impact of tourism within the nominated property is degradation of the desert landscape by vehicles. Visitors usually take a vehicle tour to the well-known sites and on peak days this can amount to 80 individual tours. Measures taken to mitigate this include creation of a single track network between key visitor sites and the use of a grader to maintain a rut-free surface on the track network and therefore encourage its use in lieu of off-track driving; the introduction of a vehicle spacing scheme and better training for drivers, none of which have proved very effective. The control of vehicle routes in the Protected Area is a top priority for management.

The most common activities are vehicle and camel tours, hiking, rock climbing, horseback treks and camping. Tourists are accommodated at 28 licensed camp sites but regulations are not well-enforced.

Other uses of the area have included special public or government events such as car rallies, marathons, army training and VIP parties, all of which have the potential to damage the ecology and image of the Protected Area. These are now prohibited within the Protected Area itself.

ICOMOS strongly endorses the damage mitigation measures taken by the authorities. ICOMOS notes that in spite of camel racing being banned from the Protected Area (although occurring around the Protected Area), the 2009 organisational structure includes a camel racing manager and staff. ICOMOS considers that the ban of camel racing within the nominated property should be respected.

Environmental pressures

The Wadi Rum Protected Area forms a large part of the Hisma Basin, a shallow geological depression extending across south-eastern Jordan to the Saudi Arabian frontier. This basin is the water catchment and drainage basin for Wadi Rum and contains the large fossil water aquifer that supplies Deseh with irrigation water and will soon be supplying drinking water to Amman.

However there is no clear mechanism for water distribution within the Protected Area and no comprehensive solid and liquid waste management system.

ICOMOS considers that attention is required to water distribution and liquid and waste management.

Natural disasters

Earthquakes of 6-7 magnitude on the Richter scale have occurred in the Gulf of Aqaba and the Dead Sea basin in the last decade, related to the Dead Sea Transform (rift). However Wadi Rum itself is not classified by seismologists as a risk zone.

The arid climate and width of the wadis precludes flooding even with torrential rain. No floods have been documented in the area in the recent past. At certain rainy periods, Wadi Al-Yutum floods in its lower reaches near Aqaba city some 30km to the west.

Impact of climate change

The area has been subject to a relatively long period of extreme drought during the last decade but specific data has not been collected. This will be addressed in the new Protected Area Management Plan, which will also consider managing the area as a Carbon-free Protected Area. It is anticipated that the costs of the latter might be offset by the international funding available for climate change mitigation.

ICOMOS considers that the main threats to the property are lack of waste management, lack of vehicle route control, lack of control of urban development around Rum Village and tourism development.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

Natural physical structures form the eastern, western and southern boundaries of the Wadi Rum Protected Area using main wadis and mountain ranges. The main access road to Disi from the junction with the Aqaba-Maan road forms the northern boundary. The boundaries were designated and delineated through a participatory process with stakeholders, which resulted in special legislation for the Area. They are marked by non-intrusive cone structures. The State Party states that the Area includes more than 70% of the iconic sandstone landforms intermingled with their representative desert ecosystems, habitats and species along with ancient preserved rock art, inscriptions and archaeology to collectively form an outstanding case of integrated values of natural and cultural heritage.

The road leading south from the main Aqaba road into the nominated property together with the Visitors' Centre and Rum Village are contained within a strip of buffer zone that penetrates into the centre of the surrounding nominated property.

The size of the buffer zone was identified by mapping areas which lie within a five km radius of the Protected Area boundaries. The nominated property and buffer zone lie within a wider geographical area exceeding 300,000ha subject to the same land use plan, which includes seven land use classifications: agricultural area; tourism development area; non-irrigated agricultural area; future tourism development zone; no development zone; rangeland zone; sport tourism zone; special management zone; non-accessible zone.

ICOMOS considers that the buffer zone should be rearranged so that the strip covering the road leading into the property to the Visitors' Centre and Rum Village should be part of the property. As noted above, the State Party has advised ICOMOS that the government of Jordan would be ready to include the strip within the nominated property.

ICOMOS also finds that the boundaries of the buffer zone need to be more clearly marked on the ground.

In conclusion, ICOMOS considers that the boundaries of the nominated property and of its buffer zone need to be rearranged so as to include the strip currently shown as buffer zone, within the property boundary, and the boundaries of the buffer zone need to be clearly marked.

Ownership

The Wadi Rum Protected Area is in government ownership except the land of Rum Village which is privately owned but controlled under the Aqaba Governorate, administered by the Aqaba Special Economic Zone Authority (ASEZA). The new

Management Plan will address issues related to recognition and understanding of the customary system of land tenure. Customary land tenure relates to grazing rights, water catchment and storage installations, cultivated areas and built properties.

The customary system of grazing rights was enshrined in the Rangeland Law of 1971. Issues related to differences between the ASEZA regulations and previous Rangeland Law in and around the Protected Area will be resolved in the new Management Plan.

Traditional land tenure, as distinct from customary land tenure, is based on mutually reciprocated recognition of claims deriving from historical use. Challenges usually occur where no precedence of use exists.

Protection

Legal Protection

The Wadi Rum Protected Area is protected legally by Cabinet decisions nos.27/11/3226 (1997) and 224/11/1/986 (2002). In 2008 the Government of Jordan approved the revised National Areas Network report prepared by the Royal Society for the Conservation of Nature (RSCN) under the Ministry of Environment and confirmed the legal status and boundaries of the Wadi Rum Protected Area.

The Wadi Rum area is governed by two national laws:

The Environment Protection Law no. 52 (2006);
The Law of the Department of Antiquities no. 21 (1988).

The additional information provided by the State Party states that the Antiquities Law is further reinforced by the regulations of the Protected Area and the by-laws of the Aqaba Special Economic Zone. However ICOMOS notes that it is not explained how the regulations apply to the cultural heritage of the area or whether there are specific listings of rock art, inscriptions and archaeological sites in terms of legal protection.

Traditional Protection

There is no inherent traditional protection of the property. However ICOMOS notes that the local Bedouin are now taking an interest in their cultural heritage and are active in preventing damage to the rock art and inscriptions by locals or tourists.

Effectiveness of protection measures

ICOMOS notes that protection measures needs strengthening to prevent removal of archaeological artefacts without permission and lack of awareness by government agencies of the property boundaries in relation to mining activities should be addressed.

ICOMOS notes that archaeological sites are not guarded or fenced.

In conclusion, ICOMOS considers that the legal protection in place is satisfactory.

Conservation

Inventories, recording, research

Research activities by national and international institutions relate particularly to the fields of archaeology and anthropology and include the archaeological and epigraphical missions inside the Protected Area of several foreign universities and research institutions by agreement with the Department of Antiquities.

ICOMOS notes that while surveys and inventories have been undertaken by a number of these research institutions and published in journals, there does not appear to be a complete inventory or map of rock art and inscription sites or of archaeological sites at the property. Two lists (located sites: 86, and poorly located sites: 65) and a map by Isabelle Ruben and Ghassan Nasser of 1999 are included on the Wadi Rum web site, which collate published information on 151 sites. In response to the request from ICOMOS for information on the inventory and maps, the State Party has provided a list and brief description of 13 archaeological sites within the nominated property and its buffer zone, and one site which is outside the buffer zone as described above.

ICOMOS recommends that priority is given to creating an inventory and maps that can be used for development of a conservation program and site monitoring purposes.

Present state of conservation

A national protected areas review report developed and published by RSCN in 2009 using IUCN guidelines indicated improved levels of management effectiveness in relation to various natural components of the Wadi Rum Protected Area. However it highlighted several areas for improvement especially related to visitor management and capacity building, and these will be covered in the new Management Plan 2011-1015.

ICOMOS notes that the archaeological sites in Wadi Rum, which represent the Neolithic period through to the early Islamic are not well-maintained or preserved. In particular the Nabataean water reservoirs are badly deteriorated. The Nabataean Temple site is open to unrestricted access. However the important stone with the inscription mentioning the tribe of 'Ad has been removed to the Museum. As noted earlier, rock art sites and inscriptions are subject to fading and deterioration and in some cases to modern graffiti.

Active Conservation measures

No active conservation measures are mentioned in the nomination dossier. In response to ICOMOS' request for information on this, the State Party detailed works undertaken in the past 15 years (covered above under History and Development) and listed works undertaken in

recent years including restoration works at the Rum temple of Allat and baths complex; authorisation of fencing for the sites of Udayb er-Rih and Abu Nakheileh; licensing of and collaboration with foreign teams; conservation of excavated material and artefacts; publication of preliminary mission reports in the *ADAJ (Annual of the Department of Antiquities of Jordan)*, and keeping a data base of site locations.

ICOMOS recommends that urgent attention be directed to guarding rock art and inscription sites and conservation of the archaeological sites within the property. Frequent patrols by rangers/guards could be developed in this respect.

Maintenance

No current maintenance program is mentioned in the nomination dossier.

ICOMOS considers that attention is needed to a regular maintenance program for the archaeological sites.

Effectiveness of conservation measures

ICOMOS considers that a program of conservation and maintenance of archaeological sites should immediately be initiated, including the cleaning out and repair of water reservoirs and dams.

In conclusion, ICOMOS considers that an up-to-date inventory and map of documented rock art and inscription sites and archaeological sites should be a priority, particularly for conservation and monitoring purposes. A program for conservation and maintenance of the archaeological sites, rock art and inscription sites should be a high priority.

Management

Management structures and processes, including traditional management processes

The Protected Area is managed by the Wadi Rum Area Management Unit within ASEZA, which is responsible for the implementation of the Management Plan prepared by the Royal Society for the Conservation of Nature (RSCN) for 2003-7 and extended to 2010. The RSCN is the primary national agency responsible for the establishment and management of protected areas under the Ministry of Environment.

In response to the request from ICOMOS for information about the involvement of the Department of Antiquities the State Party provided more details of the scope and enforcement of the Jordanian law of Antiquities no. 21 (1988) that applies to all movable and immovable antiquities throughout the Kingdom, together with a list of the roles and responsibilities of the Department of Antiquities, which is responsible for administration of the Law.

ICOMOS notes that in the Wadi Rum Protected Area, ASEZA was granted the execution of the Antiquities Law, which it does (according to the nomination dossier) through close institutional cooperation with the Department of Antiquities head in Aqaba, and through direct coordination with the Department headquarters in Amman. Direct involvement of the Department appears to be limited to collaboration with missions working in the area through the presence of an Antiquities Inspector, conserving excavated material and artefacts, contributing material to the Visitors' Centre and collaborating with organisations such as the Friends of Archaeology to conduct lectures about and site visits to spread awareness of the area's importance. The Department also licenses and collaborates with foreign teams in the excavation of sites, investigation of rock art and the reading and interpretation of inscriptions.

ICOMOS considers that more attention is needed to the conservation and management of the cultural attributes of the property.

Management of the property and buffer zone is guided by the Protected Area zoning plan which was developed through a participatory process in 2003 as part of the Management Plan and was revised in 2009 following strategic reviews, stakeholder inputs and monitoring results.

There is also a Site Management Committee which was established in 2002 and represents a fully participative mechanism for management. It includes two permanent local community representatives.

The management team coordinates with other ASEZA inspection and monitoring teams, particularly in regard to enforcement of activities in the buffer zone.

Policy framework: management plans and arrangements, including visitor management and presentation

A Management Plan was developed for the site covering the period 2003-2007 and subsequently extended to 2010. A new Management Plan is being developed to cover the period 2011-2015 which will include visitor management and presentation.

The current Visitor Management Plan was produced in 2003 by the Royal Society for the Conservation for Nature. This covered the establishment of the Visitors' Centre and parking, proposals for control of the track network, ranger training, guidelines for camp sites, and establishment of a first-aid centre and rescue post in Rum Village, and creation of a Museum of Bedouin life in the former army fort. The Visitors' Centre is the starting point for tours to places of interest in Rum, within the tribal territories of both the Disi and Rum communities. Tours are heavily focused on places connected to Lawrence's activities in the area.

The National Tourism Development Strategy (2004-2010) of the Ministry of Tourism and Department of Antiquities identified Wadi Rum as one of Jordan's prime tourism development areas, emphasising the need for good planning and consideration of the site's limited capacity and sensitive cultural and natural heritage. The property receives the highest level of funding of all protected areas in Jordan. In addition to the annual government allocation to ASEZA, the Protected Area benefits from the USAID (United States Agency for International Development) funded SIYAHA project; the Abu Dhabi funded Oryx reintroduction project, and the GEF (Global Environment Facility) small grants program.

ICOMOS considers that interpretative signage is required at significant rock art and inscription sites and archaeological sites including the water reservoirs and small dams; also guide books covering the cultural heritage, an educational program in the Visitors' Centre and maps showing the significant sites.

ICOMOS considers that the new Management Plan should include a much greater emphasis on the management of the cultural attributes of the property. The Visitor Management Plan should address adequate interpretation of the rock art and inscriptions and archaeological sites that express the Outstanding Universal Value of the property.

The new Management Plan and Visitor Management Plan should be provided to the World Heritage Centre and advisory bodies for review.

Risk preparedness

No risk preparedness strategy is mentioned in the nomination dossier.

ICOMOS considers that a risk preparedness plan should be prepared, covering security for visitors and a disaster action plan.

Involvement of the local communities

There are six Bedouin groups living inside or around the Protected Area who move around seasonally and for whom the Protected Area is a major source of income via tourism, livestock grazing or agricultural activity. The Management Plan contains actions for developing mechanisms for further community participation in the management of the Protected Area, including membership of the Site Management Committee, regular consultation, and the creation of local working groups for tourism development issues.

ICOMOS noted great pride among local communities in the cultural heritage of the Protected Area and enthusiasm for the nomination of the Protected Area and recommends that local people are involved in the safeguarding and management of the property.

Resources, including staffing levels, expertise and training

The Wadi Rum Area Management Unit comprises 82 people, including an enforcement team of 10 rangers, a tourism manager, two interpretation and marketing officers, three education and outreach officers, four visitor centre guides and 10 socio-economic officers. It is backed by a larger team of specialised technicians and support staff within ASEZA. Training and capacity building programs are provided through annual government funding allocations to ASEZA as well as through supporters, partners and donors. An annual agreement with RSCN is directed at conservation management and environmental monitoring; the USAID funded SIYAHA project which runs to 2013 is directed at tourism development, visitor management, product development, marketing and business planning; the Environmental Agency of Abu Dhabi is providing capacity building in wildlife reintroduction programs and conservation management in relation to the Oryx reintroduction project; and other programs are directed at capacity building for local community development initiatives such as small tourism related businesses, small scale sustainable agriculture development, local rehabilitation initiatives and handicraft development projects.

ICOMOS notes that funding for the cultural components of the property is not mentioned.

ICOMOS considers that apart from a lack of archaeologists and conservators there are adequate trained resources for managing and further developing the property, and that further advanced training is being provided.

Effectiveness of current management

ICOMOS considers that the management system is well developed and well organised but noted a lack of involvement by Department of Antiquities staff in the conservation and management of cultural sites. ICOMOS considers that a much greater focus is required on the cultural components of the property and that the State Party should be encouraged to involve the Department of Antiquities to a greater degree than they are at present.

In conclusion, ICOMOS considers that special attention is needed for the provision of a solid and liquid waste management system for Rum Village and camping sites; visitor management and security including a disaster action plan, and provision of guide books and educational programs. The management system requires a greater focus on the cultural components of the property and the State Party should be encouraged to involve the Department of Antiquities more directly than they are at present. Furthermore, the new Management Plan should be provided to the World Heritage Centre and advisory bodies for review.

6 Monitoring

The monitoring program was designed for the Protected Area originally as part of the existing Management Plan and related to the desert ecosystem, habitats and species. The new Management Plan will include an amended monitoring program geared towards the revised set of Protected Area values and attributes with particular emphasis on the protection and conservation of the landforms and their associated habitats and species as well as the cultural values represented mainly by the rock art and inscriptions.

ICOMOS considers that monitoring should be extended to include the archaeological sites and that adequate monitoring of the cultural heritage will not be possible without an up-to-date inventory and map of the documented rock art and inscription sites and archaeological sites.

7 Conclusions

The extensive Wadi Rum landscape appears to contain a wealth of evidence from rock art, inscriptions and archaeology that could provide an understanding as to how this spectacular desert landscape evolved as a cultural landscape over several millennia. However in the nomination dossier so far presented the evidence is limited to specific sites and even for these the details are lacking.

A collection of rock art and epigraphical sites cannot justify the inscription of this vast landscape as a cultural landscape.

If a case is to be made for how Wadi Rum is an exceptional cultural landscape the evidence needs to be presented in spatial terms and linked to the uses of the landscape and the settlements it fostered.

ICOMOS considers that more time is needed to produce a database of known sites and to link these to landscape surveys in order to present the way societies have harnessed the natural resources of the area over time. There is a need to show how the rock art, the inscriptions and the various archaeological remains can be understood for the way they present this history, if a case for Outstanding Universal Value is to be substantiated.

The boundaries of the nominated property and of its buffer zone need to be rearranged so as to include the access road, Visitors' Centre and Rum Village.

Particular attention is needed for their safe-guarding, conservation and interpretation of the cultural sites. The New Management Plan should include a much greater emphasis on the management of the cultural attributes of the property, and the resources needed to achieve this. A Visitor Management Plan is needed to address

adequate interpretation of the rock art, inscriptions and archaeological sites linked to arrangements for managed access.

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of Wadi Rum Protected Area, Hashemite Kingdom of Jordan, to the World Heritage List be **deferred** in order to allow the State Party to:

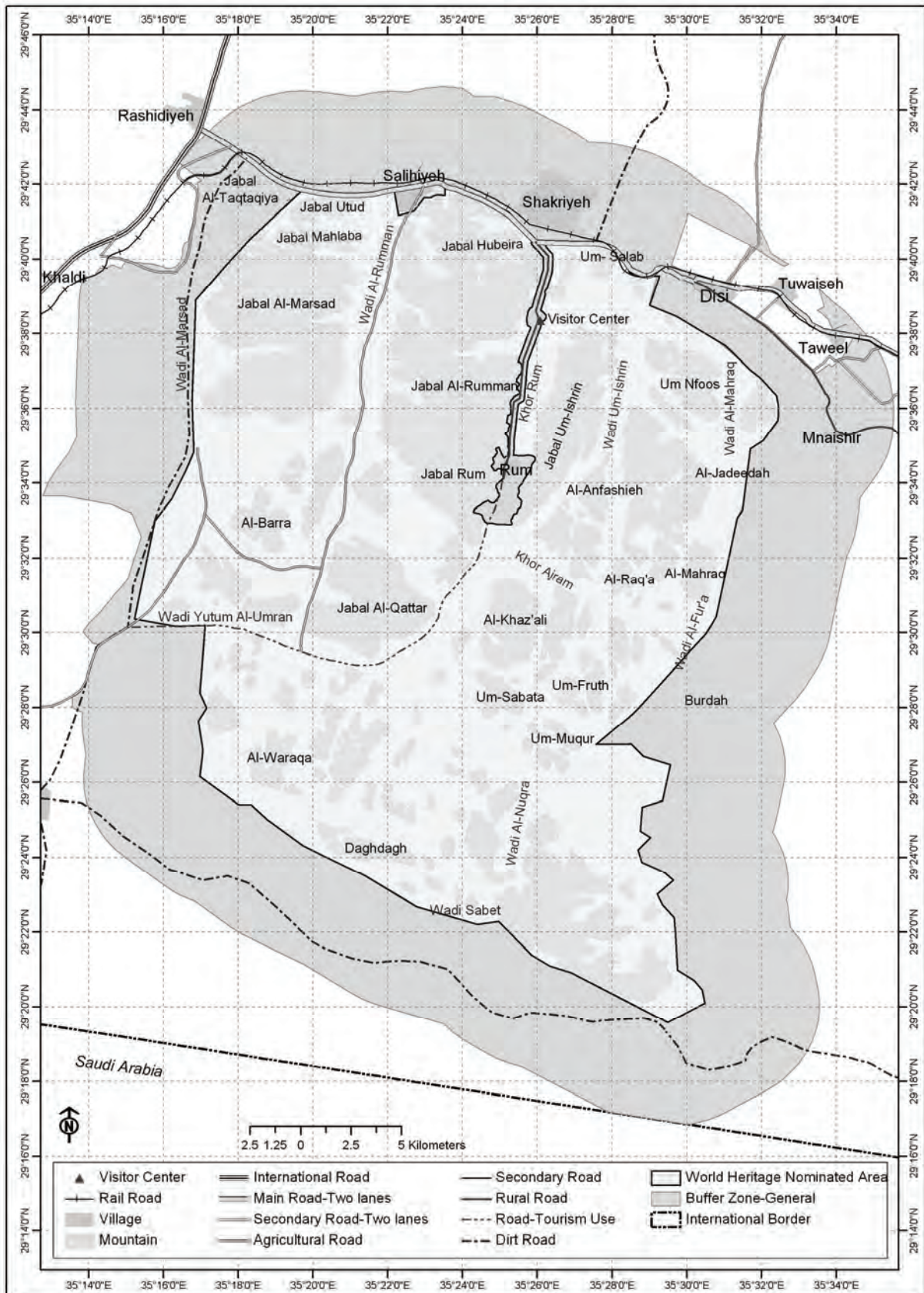
- On the basis of a detailed database of the rock art, inscriptions and archaeological sites, and landscape surveys, demonstrate how the Wadi Rum landscape can be considered as an exceptional reflection of the way people have interacted with the landscape over time;
- Undertake a more detailed comparative analysis to show how this landscape compares to other desert landscapes in the same geo-cultural region in terms of the evidence it reflects for its development over time;
- Re-arrange the boundaries so as to include the access road, Visitors' Centre and Rum Village currently shown as buffer zone, within the property boundary;
- Put in place an inventory of documented rock art, inscription sites and archaeological sites as a priority, for conservation and monitoring purposes;
- Develop a program for the safe-guarding, conservation and interpretation of archaeological sites, rock art and inscriptions;
- Include a stronger focus on the management of the cultural attributes of the property in the New Management Plan and involve more directly the Department of Antiquities in the management of the property;
- Provide details of funding for the cultural components of the site.

ICOMOS considers that any revised nomination would need to be considered by an expert mission to the site.

ICOMOS further recommends that the State Party consider the following:

- Develop complementary measures for protection of the cultural sites, such as frequent patrols by rangers/guards;
- Establish a solid and liquid waste management system for Rum Village and camping sites;
- Develop a strategy for visitor management including vehicle route control;

- Observe great caution concerning 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.



Map showing the boundaries of the nominated property



Panoramic view of Wadi Rum Protected Area from the top of Jebel Rum



'Seven Pillars of Wisdom'



Nabataean temple remains



Petroglyphs and epigraphy