Description

The rock art is found on a dramatic weathered and fragmented sandstone hills some 90 kilometres west of Khorixas, in the centre of Damaraland, which stretches between the Erongo and the Etosha Pan in the north-west of Namibia. The sedimentary and volcanic rocks are disjointed and break up along fault lines into flat boulders of Etjo sandstone on which the rock art is found. Along one of the fault lines is an aquifer that feeds the spring after which the site is named. This flows into the Aba Huab River, which drains to the Atlantic Ocean. Twyfelfontein lies within a transitional zone between semi desert and savannah and receives less than 150mm annual rainfall.

The rock art is found in loose clusters on boulders on the lower slopes of the scarp. The paintings and engravings have been recorded on 235 separate surfaces on which have been found 2,075 identifiable images.

The nominated property encompasses the rock art and associated archaeological remains on a west facing slope below high sandstone cliffs. The extensive buffer zone encloses both sides of the valley and a significant part of the surrounding hills. Both the core area and the buffer zone fall within the Twyfelfontein Uibasen Conservancy.

The nominated property consists of:

- Petroglyphs
- Painted rock art
- Archaeological sites

These are considered separately.

Petroglyphs

The images were produced by two separate techniques: pecking with a harder stone or a hammer and punch, and secondly grinding or polishing. The pecked images vary from a simple design of lines and infill to much more complex subjects. Most of the sites show a variety of techniques and levels of refinement suggesting cumulative compositions over time. Unlike many painted rock art sites, the images do not overlap one another.

The two main techniques are considered separately in terms of sites where they are dominant.

- Pecked images:

The Etjo sandstone beds are extremely hard rocks and as a consequence some of the pecked engravings are comparatively shallow and are quite fresh looking. Others are cut much deeper and have weathered edges and a restored surface patina.

The most developed or refined examples of peck engraving are animal depictions where a type of shading was used - lighter etching within a deep, precisely etched outline and often with the rock cortex left intact in the middle of the animal image or slightly reduced by polishing. A large number of giraffe were executed with this technique. Their heads are emphasised as are the chest and rump in a
manner that may be termed the ‘Twyfelfontein manner’ or style. The pecked technique was also used as a type of false relief engraving. This involved the removal of the rock cortex in the centre of the image with a rounding of the body towards the outline.

These refined pecking techniques only account for a small proportion of the overall images. Simpler geometric images seem to have been produced throughout the history of the property.

- Polished images:

The most refined, but rare, examples of images where the main technique was polishing include naturalistic engravings such as the Dancing Kudu created by polishing the area within a simply defined shape.

Rubbing has also created numerous examples of ‘cupule’ depressions. ‘Cupules’ are small, semi-hemispherical hollows that seem to have been produced by rotating a smooth pebble against the inner surface of a depression. The meaning of cupules is, as yet, unclear, but they seem to represent a way to mark certain categories of space and place.

Rubbing was also used near images to smooth the surface without any decorative design. One rock is highly polished over a four metre square area. These areas could indicate the location of rituals associated with the engraved images.

One clear feature of the images is their apparent deliberate siting in relation to the terrain. Engravings of human footprints and animals tracks are found on inaccessible surfaces or near the sharp broken edges of rock faces. A higher number of engravings and paintings are also found near the spring or ‘fontein’ with a gradual dispersal further away and this is typical of similar sites in Namibia.

An analysis of the animal images reveals that giraffe account for 40%, rhinoceros 19%, zebra 12%, oryx 8%, ostrich 6% and cattle 5%. Flying birds hardly appear and human figures account for only 0.5% of all subjects.

The images of animals have been interpreted as representing not their occurrence in the wild but rather their significance in rituals. It is also suggested that the animals depicted might in fact be illustrating the ritual transformation of humans into animals. For instance, the ostriches are shown walking in line with wings extended in an ‘arms back’ posture as in a ritual dance and some giraffes are juxtaposed with human footprints. The most celebrated example is the ‘Lion Man’ a lion with five toes on each claw.

The imagery suggests the rock art was linked to the belief system of hunter-gathers who dominated the area until the arrival of pastoralists around 1000 AD. They could well have used the area around the spring as a ritual centre associated with rainmaking, initiation and other ceremonies. The rock art tradition persisted until after the arrival of the pastoralists as some engravings depict cattle that were introduced by the Damara people.

In addition to the rock art in the core area, there are approximately 500 more individual images at 8 sites in the buffer zone. Some particularly significant engraved sites occur in the Buffer Zone. They are not included in the nominated area as their integrity has been severely damaged by the construction of the Twyfelfontein Country Lodge (see below).

### Painted rock art

There are six shelters with painted images. In distinct contrast to the petroglyphs sites, human figures are dominant in the painted shelters. The paintings are carried out in red ochre. Human figures are depicted in a variety of stances including on ‘all-fours’, a pose representing a classical stance in ritual dances.

### Archaeological sites

Three shelters associated with the rock art have been excavated since 1968. Affenfelsen site, noted for its painted figures revealed 19,000 stone artefacts – stone tools and ostrich egg beads - and a date of 3,450 BP +/- 40 years. Zwei Schneider another painted shelter produced similar artefacts and a date of 5,850 BP +/- 70 and Hasenbild a date of 370 BP +/- 50 suggesting very recent use of the area.

There have been no excavations near the engraved sites. Some of these have a striking feature of semi-circular stone windbreaks, often associated with scatter of quartz flake debris.

### History and development

In the 1940s the Twyfelfontein land was granted on licence to a settler. At that time a few Damara people lived close to the spring in 32 huts. The land was transferred to communal use for Damara farmers in 1964 on the recommendation of the Odendaal Commission. But no farmers came forward to make use of it and it lay abandoned for 20 years. Following Namibian independence in 1990, the land became State Land under the Ministry of Lands, Resettlement and Rehabilitation.

Before the 1940s, there is little evidence for the use of the area by the Damara; it is likely that as nomadic pastoralists, they used the area on a seasonal basis congregating near the spring after rains. However nomadic pastoralism had been almost completely destroyed in the preceding 100 years by the Rinderpest epidemic of 1897 and by ensuing government policies which encouraged people to leave the land.

Interviews with local residents in 2004 failed to collect oral evidence for living cultural association with the rock art, although the rock art sites were seen as powerful places and the rock art the work of ‘ancestors’. The imagery of the art suggests it is part of the belief system of hunter-gathers, the San, who lived in the area until partly displaced by Damara herders about 1,000 years ago and finally displaced by European colonists within the last 150 years. No San now live in the area, although the beliefs of present-day San who live some 800km away in the northeastern part of Namibia, give insight into the meaning of the rock paintings and engravings at Twyfelfontein.

### 3. OUTSTANDING UNIVERSAL VALUE, INTEGRITY AND AUTHENTICITY
**Integrity and Authenticity**

**Integrity**

The integrity of the property is generally intact.

By most standards, Twyelfontein is in a remote location in a country that has fewer than 2 million inhabitants, yet it currently attracts some 40,000 visitors a year. Bushloads of tourists, mainly from Europe, stop there as tour operators have found it convenient to include it in their itineraries on a route from the Namibian desert and the coastal town of Swakopmund to the well-known game park at Etosha Pan. The large number of visitors has the potential to affect the integrity of the property.

However, the number of rock art panels open to the public is limited and they are in guided routes. This helps to retain the integrity of the property.

The Twyelfontein Country Lodge was permitted by the Conservancy in 1999/2000 within the Seremonienplatz rock engraving site in the buffer zone. This has severely compromised the integrity of the rock engravings in this area.

**Authenticity**

All the rock engravings and rock paintings within the core area are without doubt the authentic work of San hunter-gatherers who lived in the region long before the influx of Damara herders and European colonists. In the buffer zone, there is one recent rock engraving by the late E.R. Scherz who made it deliberately in the 1960s to test the rate of patination in comparison with the San engravings. He recorded the event photographically and it is quite clear even today that it is a recent addition.

The setting of the Twyelfontein rock art is also authentic as other than one small engraved panel which was removed to the National Museum in Windhoek in the early part of the 20th century, no panels have been moved or re-arranged.

**Comparative analysis**

Twyelfontein is one of a set of sites identified in 1998 by the Southern African Rock Art Project to represent the full range of rock art in the sub-continent on the World Heritage List. Others in the set that have already been inscribed are the uKhahlamba/Drakensberg Park mixed site in South Africa, the Matobo Hills in Zimbabwe, Tsodilo in Botswana, the Chongoni Rock-Art Area in Malawi and Kondoa Rock-Art Sites in Tanzania. The Mapungubwe Cultural Landscape in South Africa also includes rock art, but was nominated mainly for other values. All these sites have rock paintings (with a few engravings at Mapungubwe and Tsodilo) that relate to the spiritual beliefs of San hunter-gatherers, Khoekhoe herders and indigenous farming communities.

ICOMOS considers that Twyelfontein is unique in its large number of rock engravings and their high quality and diversity. None of the other Southern African sites, either on tentative lists or already inscribed, can match this number. The /Xam Heartland in the Northern Cape in South Africa, on the tentative list because of its association with 19th century /Xam San people and their oral history, has a wide range of rock engravings, but they are of variable quality and are not concentrated in one relatively small area as at Twyelfontein. Sites of similar diversity and quality are known in South Africa (for example Rooipoort near Kimberley and Kinderdam near Vryburg), but they have not been proposed for World Heritage listing.

North of the Equator, there are outstanding rock engraving sites in the Sahara at Tadrart Acacus in Libya and Tassili n’Ajjer in Algeria that might surpass those at Twyelfontein for their size and individual impact, but the quality and variety at Twyelfontein remains significant and distinctive.

Beyond the African continent, there is a generic similarity with rock engravings at sites such as Rock-Art of Alta in Norway, Rock Carvings in Tanum in Sweden, Prehistoric Rock-Art Sites in the Côa Valley in Portugal, Petroglyphs within the Archaeological Landscape of Tamgaly in Kazakhstan, and Ulunu-Kata Tjuta National Park and Kakadu National Park in Australia. However in each of these cases the underlying significance of the property is related to the local communities that created the art, and their way of life, as well as to their superficial manifestations.

ICOMOS considers that Twyelfontein can be seen as an outstanding example in a relatively confined area of a remarkable concentration of high quality engravings as well as good quality rock paintings that reflect hunter-gatherer communities before the arrival of pastoralists.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

**Justification of the Outstanding Universal Value**

The State Party considers that the property has outstanding universal value for the following reasons:

- Twyelfontein has the largest single concentration of rock art sites in southern Africa.
- With 2,000 engravings the site is larger than any other rock arts sites in Namibia.
- The engravings are exceptionally well preserved and show a wide repertoire of subjects.
- The property represents the final florescence of ritual art under the combined impact of environmental stress and the rapid expansion of nomadic pastoralism.
- The engravings show deliberate positioning in the landscape and exemplify the integration of culture and nature.

**Criteria under which inscription is proposed**

The property is nominated on the basis of criteria iii and v.
4. FACTORS AFFECTING THE PROPERTY

Impact of climate change

This is not addressed in the dossier. The already hot dry climate does not adversely affect the rock engravings. Violent and unpredictable weather might have an adverse effect on the geology but this is unlikely. The rock paintings are much more vulnerable to changes in climate and particularly wind.

Risk preparedness

This is not addressed.

Development

Without adequate protection of the Buffer Zone, the setting of the property remains vulnerable to development pressures related to tourism.

Environment

The quality of the rocks on which the painted images are found is poor and the paintings show extensive spalling due to the wind.

Tourism

The large number of visitors to the property and the fact that they currently arrive in large groups provide the potential for damage to the rock art. However some 75% of the rock art – some 50% of the overall property is currently out of bounds to visitors for conservation reasons. In those areas that are open, active visitor control is now being practiced through the provision of viewing platforms and paths laid out to facilitate one way circulation systems, and keeping vulnerable areas free from traffic.

Since the dossier was prepared, several further changes increase the chances of retaining the integrity of the core area despite the addition of new facilities. The Namibian roads authority has de-proclaimed the last 500m of the road leading to the visitors centre so that an intrusive road sign could be removed. A satellite dish that will enable the staff to receive bookings and communicate with the outside world has been installed and will be camouflaged with suitable paint so that it is not visible from the tourist routes. A well-designed interpretation center with solar panels for electricity, eco-toilets, a refreshment counter, information boards and a craft outlet, has been constructed of natural stone gabions and re-cycled materials. This blends in well with the surrounding landscape.

Their challenge is not to attract more visitors as the carrying capacity of the property could be exceeded, but rather to develop capacity to manage the current visitor numbers and a modest increase. This can be done as suggested in the management plan by opening new routes and carefully monitoring the impact on existing routes but it will need advice from a professional rock art conservator.

In addition, the tourist guides need to be managed so that their duties are rotated. They could become involved in conservation and documentation projects to increase their understanding of the art, and/or in the collection and analysis of visitor behaviour patterns and perceptions. In spite of the positive work carried out locally, as noted in the dossier and management plan, formal linkages with the national tourism authority are weak and ICOMOS considers that it would be highly beneficial to improve these.

The policy of the Ministry of Environment and Tourism in the past has been to promote wildlife rather than cultural heritage sites. It is understood that a concerted effort to jointly promote tourism at cultural heritage sites with the Ministry of Youth, National Services, Sport and Culture would be greatly enhanced with the inscription of a major cultural attraction such as Twyfelfontein as a World Heritage property.

An official guide book for the site is planned.

One major factor affecting the property is the construction of the Twyfelfontein Country Lodge in the Buffer Zone which incorporates one of the key rock art sites, the Seremonienplatz. Guests pass through a natural gap amongst high rocks with numerous rock engravings which seriously disrupts the sense of place of the rock art. The nomination dossier states that the construction of this lodge was against the National Heritage Act and demonstrates the weakness of local authorities in the face of booming entrepreneurial tourism.

Currently there is no plan to re-direct traffic and create a different entrance to the Lodge. However the dossier and management plan indicate that this scale of impact will not be allowed in future without a full environmental impact assessment. The Lodge generates income for the Conservancy and is a major player in the Joint Management Forum. Over a 30-year period, ending in about 2030, ownership of shares in the Lodge will be gradually transferred to the Conservancy. It is the most important single employer of local people with a staff of 80 and for this reason alone is important in the economy of the region.
ICOMOS recommends that serious consideration should be given to changing the entrance to the Lodge in order to better conserve and manage this rock art site.

ICOMOS considers that the main risks to the property are from the lack of effective enforcement of legal protection of the buffer zone and recommends that special attention is given to ensuring that this is addressed.

5. PROTECTION, CONSERVATION AND MANAGEMENT

Boundaries of the nominated property and buffer zone

The boundaries of the nominated property encompass the majority of the key rock art that still possesses integrity. The buffer zone is large enough to enable the protection of the setting, but needs adequate protection – see below.

ICOMOS considers that the boundaries of the core and buffer zone are adequate.

Ownership

The entire core area belongs to the State of Namibia.

Protection

Legal Protection

The core area was designated a national monument in 1948 and is now protected by the National Heritage Act 2004. This offers adequate legal protection which will be further enhanced once the process of declaration of the Conservation Area in terms of s.54 of the National Heritage Act is completed for the core and buffer zone.

By-laws for the Conservation Area have been drafted and approved by the National Heritage Council and were discussed at a meeting of the Joint Management Forum on 18 October 2006. Once agreement has been reached, the document will be forwarded to the Ministry of Justice and it is expected that final approval will be forthcoming early in 2007.

Agreement has been reached with the Ministry of Mining, which typically grants exclusive prospecting licenses for blocks of 1,000 ha. Three applications were received for the Twyelfontein area recently and were referred to the National Heritage Council for clearance. The buffer and core were excised from the licensed blocks and may therefore not be prospected. There is no mining currently in the area and the nearest operation is a tin mine some 150km to the south that has been worked out and is no longer in commission.

Two security guards have been appointed at the property, one for the parking area and one for the information center. If any contraventions of the National Heritage Act occur, they will be reported to the Site Manager for action.

In size, the buffer zone adequately protects the core area. However there are currently no protective measures in place for the buffer zone to control development, protect archaeological sites, and regulate environmental activities.

ICOMOS considers that the protective measures for the nominated property are adequate but recommends that special attention is given to ensuring that protection of the buffer zone is put in place and enforced. ICOMOS further recommends that the Conservancy is represented on a Joint Management Committee in order to afford adequate protection to the Buffer Zone. (See Management below.)

Conservation

History of Conservation

In the last few years there has been a concerted effort to give the property formal management and to control visitor impact and put in place preventative conservation measures. Paths have been repaired or re-routed and viewing platforms have been constructed at vulnerable sites to keep visitors out of direct contact with the sites. There are now also properly trained guides on site and the management plan identifies preventative conservation measures.

Present state of conservation

The current state of conservation of the property is adequate.

Active Conservation measures

Some of the conservation measures proposed in the nomination dossier and management plan are in place and are being monitored.

Conservation measures related to the maintenance of paths, visitor facilities, security and waste removal have been outsourced by the National Heritage Council. Viewing platforms have been erected at several engraved panels to prevent visitors from walking on the engravings. The raised platforms do intrude to some extent, but have been designed to blend with the rocky slopes and are certainly necessary to protect the art.

Repairs undertaken in the low season (January) in 2006 have highlighted the effectiveness of some conservation interventions and problems with others. Elevated viewing
platforms work very well, as do the shaded seating areas along the guided routes. As guided groups are limited to 8 people at a time, parties are sometimes required to wait their turn and shade and seating are very welcome. Some pathways have not needed repair, but those subjected to erosion on unstable slopes have needed damage control and will be watched to identify the major causes. Minor problems have been experienced with the welded metal frames for steps on one of the paths.

Conservation tasks related specifically to the documentation and monitoring of rock engravings and paintings have not yet been given the same level of attention as those dealing with day-to-day visitors and maintenance, but are a medium-term priority at this stage. They will need to be budgeted for both by the National Heritage Council and the Ministry. (see management below)

**ICOMOS** considers that the overall state of conservation of the property has improved over the past few years, particularly in terms of the way visitor are managed. ICOMOS considers that a higher priority needs to be given to regular documentation and monitoring as a means of ensuring the state of conservation of the property continues to improve.

**Management**

The property is managed directly by the National Heritage Council.

A Management Plan for the property was drawn up and implementation begun in 2005. As the management plan and implementation structure is relatively new, there is a strong sense of enthusiasm. The hierarchy of decision-making starts with the Ministry of Youth, National Services, Sport and Culture that sets budgets according to its annual strategic plan. An annual grant allocated to the National Heritage Council provides for staff salaries at the head office and at satellite sites such as Twyfelfontein. The Board of the National Heritage Council makes policy decisions and these are executed by the Director and his staff. The Twyfelfontein site manager, who is responsible for two other sites besides Twyfelfontein, reports to the head office of the National Heritage Council in Windhoek. Matters specific to Twyfelfontein and the surrounding area are discussed by a Joint Management Forum. The tour guides report to the Conservancy. Contracted maintenance staff report to the site manager.

All the current tour guides are Damara, as are most of the members of the Conservancy community. No spokespersons from the San community in Namibia have been included amongst the stakeholders in the nomination process, although the Working Group for Indigenous Minorities in Southern Africa (WIMSA) has been informed of the nomination. The San will thus not benefit directly from development of Twyfelfontein. ICOMOS suggests that ways should be considered to allow San participation in the site (even thought they now live far from the area).

**Resources, including staffing levels, expertise and training**

The National Heritage Council appoints and pays the salary of the site manager. The NHC receives a gross income of about N$1 million, or US$160,000 a year from visitors to Twyfelfontein. The two cashiers are paid out of this income from visitors, as are the contracted service providers for maintenance and security. Tour guides, who must be members of the Twyfelfontein Tourist Guide Association, are employed on contract by the Conservancy and receive 35% of the visitor fees. This sum is distributed amongst about 25 guides, depending on their working hours.

At present none of the local members of the Joint Management Forum or the Conservancy have experience in heritage site management. ICOMOS recommends that in the short and medium term, professional heritage managers and archaeologists are involved in planning and decision-making.

Part of the reason for the slow start in conservation is the general lack of suitably qualified people in Namibia. It is understood that a target is to establish a degree course for heritage site managers in the departments of history and geography at the University of Namibia. In the short term, ICOMOS considers that it would be desirable to consider on-site training with contracted specialists to teach recording techniques and monitoring methods to tour guides who could contribute to documentation and monitoring during off-peak months.

It would clearly also be desirable to appoint a rock art conservation manager at the site who could be responsible for conservation, documentation and monitoring at other rock art sites in the general region.

**ICOMOS** commends the State Party on the Management Plan. ICOMOS considers that further consideration should be given to setting up a joint Committee with the Reserve; to involving professional heritage managers and archaeologists in decision making; to appointing a rock art specialist who could have a monitoring role at this and other similar sites in the Region; and to finding ways to allow San participation in the property.

**6. MONITORING**

All the rock art sites have been documented and an inventory has been produced with the basic documentation linked to a GIS system.

ICOMOS understands that ongoing documentation and monitoring of rock engravings and paintings are only a medium-term priority at this stage. ICOMOS considers that higher attention should be given to these processes.

**ICOMOS** considers that although the basic documentation for the property is adequate, the monitoring measures for the property should be enhanced to ensure that the outstanding universal value of the property and its authenticity and integrity are sustained over time.

**7. CONCLUSIONS**

**Recommendations with respect to inscription**
ICOMOS recommends that Twyelfontein or /Ui-//aes, Namibia, be inscribed on the World Heritage List on the basis of criteria iii and v.

**Criterion iii:** The rock art engravings and paintings in Twyelfontein form a coherent, extensive and high quality record of ritual practices relating to hunter-gather communities in this part of southern Africa over at least two millennia.

**Criterion v:** The rock art reflects links between ritual and economic practices in the apparent sacred association of the land adjacent to an aquifer as a reflection of its role in nurturing hunter-gather communities over many millennia.

**Recommended Statement of Outstanding Universal Value**

The Twyelfontein rock art engravings and paintings demonstrate Outstanding Universal Value.

The rock art:

- forms a coherent, extensive and high quality record of ritual practices relating to hunter-gather communities in this part of southern Africa over at least two millennia; and,

- eloquently reflects the links between ritual and economic practices of hunter-gatherers in terms of the value of reliable water sources in nurturing communities on a seasonal basis.

ICOMOS recommends that the State Party give consideration to the following issues:

- Providing adequate protection for the buffer zone.

- Setting up of a Joint Management Committee for the Conservation area and the Conservancy that has representatives from the Conservancy, the National Heritage Council, the Tour Guide Association and the lodge and camp owners.

- Giving higher priority to monitoring and documentation as a means of sustaining the OUV of the property.

- Considering the possibility of appointing a rock art specialist to the site who could have a monitoring role at other similar sites in the Region.

- Exploring ways to allow San participation in the site.

- Giving serious consideration to ways of changing the entrance to the Twyelfontein Lodge in order better conserve and manage the nearby rock art.
Map showing the boundaries of the nominated property
Shaded antelope

Lion, giraffe and other animals
Dancing kudu

Zwei Schneider