

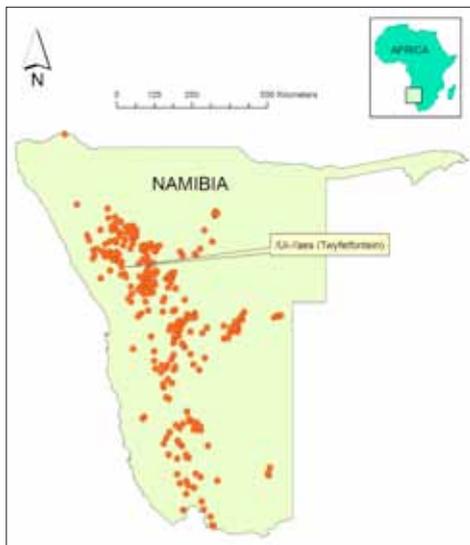
# The rock art of /Ui-//aes (Twyfelfontein)

## Namibia's first World Heritage Site

### Introduction

North-western Namibia has a spectacular array of ancient rock art sites, containing a rich heritage of well preserved paintings and engravings. Namibia's first World Heritage site, Twyfelfontein, or /Ui-//aes<sup>1</sup>, is the largest concentration of ancient rock engravings in southern Africa. The site has over two thousand images, including giraffe, elephant, rhinoceros, ostrich, and a variety of other animal subjects, as well as abstract forms. The engravings, and a small number of paintings, were created during the last 5 000 years when the people of this area lived mainly by hunting and gathering. During the long dry season the hunters depended on small waterholes such as at Twyfelfontein, where they waited for the rain before resuming their travels.

Approached from the north, Twyfelfontein lies in a wide open valley flanked by cliffs of reddish-coloured sandstone. These are the remains of fossilized sand dunes deposited up to 200 million years ago, in the Jurassic Period. The fossil dunes rest on layers of shale which formed the bed of a shallow lake system that covered a vast area of south western Africa and adjacent parts of what became South America after the splitting of the continents. Today, underground water flows between the shale and sandstone beds and emerges near the foot of the cliffs at Twyfelfontein. The dense concentration of rock art and related



*The general distribution of rock art sites in Namibia*

archaeological remains shows that this spring has sustained all who ever lived in the valley.

Twyfelfontein was proclaimed a National Monument more than fifty years ago. Since Namibian independence in 1990 the site has become an important tourist attraction and it now receives more than 50 000 visitors every year, from all over the world. Major repair and rehabilitation work on the site was funded by the European Community in 2002, when



*Zebra, showing the use of false relief technique*

the site facilities had fallen into disrepair and uncontrolled erosion of visitor paths threatened a number of important rock art panels. Following an extended period of consultation and research, Twyfelfontein was nominated as a World Heritage site in 2007. The site was acknowledged by the World Heritage Commission for its outstanding significance as an example of the final florescence of hunter-gatherer ritual art. The exceptional preservation of the art and its natural surroundings were important additional considerations<sup>2</sup>.

The National Monument, which forms the core area of the World Heritage site is just over 50 hectares in extent. This area contains the bulk of the rock art and forms the main focus of attention. Surrounding the core area is a buffer zone of more than 9000 hectares which is intended to protect the general environment of the site against encroachment by settlement and other activities that could

threaten its integrity and reduce its value as a heritage and tourism asset.

### **Archaeological background**

Modern people and their ancestors have lived in the dry western parts of Namibia for more than half a million years. The archaeological record of this region is characterized by short periods of intensive occupation, followed by prolonged gaps, such as during the glacial maximum at the end of the Tertiary Period, when the western parts of Namibia were almost completely depopulated.

About 10 000 years ago, climatic conditions returned to something like we have today: patchy and often unreliable summer rains, following a long dry season. Sometimes, several years pass with little or no rain. Plants and animals in this environment exhibit a wide range of special adaptations which enable



*Densely engraved panel with rhinoceros and giraffe, and showing the use of shallow pecked technique*

them to respond quickly to life-giving rainfall, while retaining the ability to endure long periods of drought. A brief global warming event about 5 000 years ago brought a new wave of human settlement to this region, and it is during this time that the great florescence of rock art began. Hunter-gatherer communities, ancestral to the San or Bushman people of today, evolved highly specialized uses of food plants, as well as sophisticated hunting strategies employing snares, poisons and the deadly composite arrow. These techniques were combined with a highly mobile way of life in which small family groups moved over large distances between water sources, hunting grounds and patches of nutritious plant foods<sup>3</sup>.

The archaeological evidence shows that over the last 5 000 years hunter-gatherers living in western Namibia kept returning to the same water sources in the dry months of the

year. They would remain at these sites as the weaker and less reliable springs dried up, and sometimes groups of several families might have been forced to remain together for several months, their food supplies running lower as they awaited the first rains. During these times of near famine, tensions would have run high, with social harmony threatened by conflict over scarce resources. Descriptions of life among historic and recent hunter-gatherer communities in southern Africa emphasize the great importance of ritual healing, as most illness and misfortune was thought to have its origins in social discord. Ritual healers, also known as medicine people, or shamans, would have been in demand during the dry time of the year, and it is no surprise to find that the archaeological sites near these main water sources also contain the highest concentrations of rock art in Namibia<sup>4</sup>.

Most of the thousands of rock art sites in Namibia are located along the mountainous



All bird engravings depict non-passerine (striding) species such as ostrich

escarpment. Some places, such as the Dâures, or Brandberg massif, have a remarkably high concentration of rock art sites. Today, the rock art of southern Africa is recognized as the cultural legacy of hunter-gatherer peoples who occupied the whole of the region before the coming of agriculture, livestock farming and, more recently colonial rule. However, our knowledge of them is incomplete, as it must rely to a large extent on fragmentary

and often ambiguous archaeological evidence. Time and circumstance lead to the extinction of some communities, while others adopted farming and changed their customs forever. This diverse cultural landscape included the ancestors of the San or Bushman people of today, as well as the Damara, but the precise identity of the artists may never be discovered<sup>5</sup>.

Radiocarbon dates from excavations at Twyfelfontein show that two of the painted sites were occupied at least 5 000 years ago. It is possible that some of the engravings are older, but some are very much younger. Engravings of cattle at this site must date to within the last 1 000 years<sup>6</sup>, when farming communities spread through Namibia, bringing domestic animals, crops and metals. A men's game depicted among the engravings is known in Khoekhoegowab as //hus, and this was almost certainly introduced to Namibia at the same time as cattle, for the rules of the game are rooted in the social values of nomadic pastoralism. A less obvious indicator of recent date might be the use of polishing as an engraving technique, suggesting a link with women's work in the grinding of wild grass seed, a practice that only began with the widespread use of pottery in the last 1 000 years. The art tradition seems to have largely died out in Namibia centuries ago, and many rock art sites were unoccupied during the last thousand years.

### Rock art technique and placement

Twyfelfonein sandstone is a hard, coarse-grained quartzitic material with clearly visible bedding planes showing characteristic features of aeolian deposition. These include both ripple marks and indications of sheet collapse on the leeward or slip-face of an unconsolidated dune. Some of the sandstone in the lower parts of the sequence was deposited under semi-fluvial conditions and shows characteristic features such as load casts resulting from the compaction of moist sediments under heavy overburden, and shallow lenses of rounded pebbles in a fine mudstone matrix.

Large masses of rock have broken away from the overhanging sandstone cliffs at



View of the site from the south. The broad, open area halfway up the slope below the cliffs has a high density of engraving sites

Twyfelfontein, coming to rest on the slopes below where further disintegration has produced a chaotic rubble slope. Natural fracturing of the sandstone is both parallel and semi-perpendicular to the bedding, and engravings appear on both kinds of faces. Generally, the faces parallel to the bedding are prone to spalling, and significant areas of engraved surface have been lost to natural disintegration of the rock. In some places, the engraved surface is barely attached to the parent rock and these engravings are highly vulnerable. The fracture planes that are perpendicular to the bedding are generally harder and much less prone to spalling. These faces also form the overhangs where the paintings are concentrated.

Most, but by no means all, of the engravings at Twyfelfontein present the subject in broad, generalized outline. Animals are shown

in profile, usually with both fore- and hind legs depicted. Sometimes folds in the skin are shown, as is the patterning of the hide, in the stripes of the zebra or the reticulated pattern of the giraffe. Some of the engravings appear crude, while others seem obviously unfinished, persuading some earlier observers to suggest that this reflected differences in artistic ability, certain artists being more accomplished or practiced than others. Still others suggested that variation in the art reflects the ontogenetic development, florescence and decline of rock engraving. There could be merit in these arguments, but it is just as likely that technique was dictated by subject matter, according to specific rules which are still to be discovered. It is equally probable that the combinations of technique and subject matter seen at Twyfelfontein characterize the work of specific individuals, artist shamans whose identity we will never know.



Densely engraved panel including five toed lion spoor

No fewer than six distinct engraving techniques are recognizable at the site. Most of the images are engraved by *shallow pecking* to define the outline, leaving the rock cortex intact in the case of an animal subject. Clearly different is the use of *deep pecking*, which often creates a rough surface within the body of the engraving. These are not stages of development but separate techniques, deep pecked images usually having more precisely defined outlines. Shallow pecked animal spoor are often poorly defined, whereas deep pecked spoor are more precise, being clearly identifiable to species, and sometimes gender. A third technique is that of *false shading*, a shallow type of engraving which removes only superficial cortex to create a colour variation in the body of the subject, best exemplified by the Lion Man engraving described below. This differs from the technique of *false relief*, where the outline is deeply incised and the cortex removed to show the form of the

subject, such as in muscle folds, to vivid effect in raking light. These techniques rely mainly on percussion, unlike the *deep ground* cupules which appear to have been made by rotating a sharp stone, possibly with the use of an abrasive. Abrasives are certain to have been used to create the unique *flat polish* effect seen in the Dancing Kudu, also described below.

Most of the paintings at Twyfelfontein are found in open rock shelters. Hidden paintings, located in rock crevices and other such places, have a double significance in the sphere of ritual practice. On the one hand they are located in places of seclusion which may have been used by the shaman in solitary preparation, while on the other hand, crevices and fissures would also have served as points of entry to the supernatural world. There are similar patterns to be seen among the engravings: most are found on open and highly visible rock surfaces, while others are hidden, or seem



An example of the many inaccessible engravings found at the site

to be deliberately positioned to make use of the physical setting as part of the rock art<sup>7</sup>.

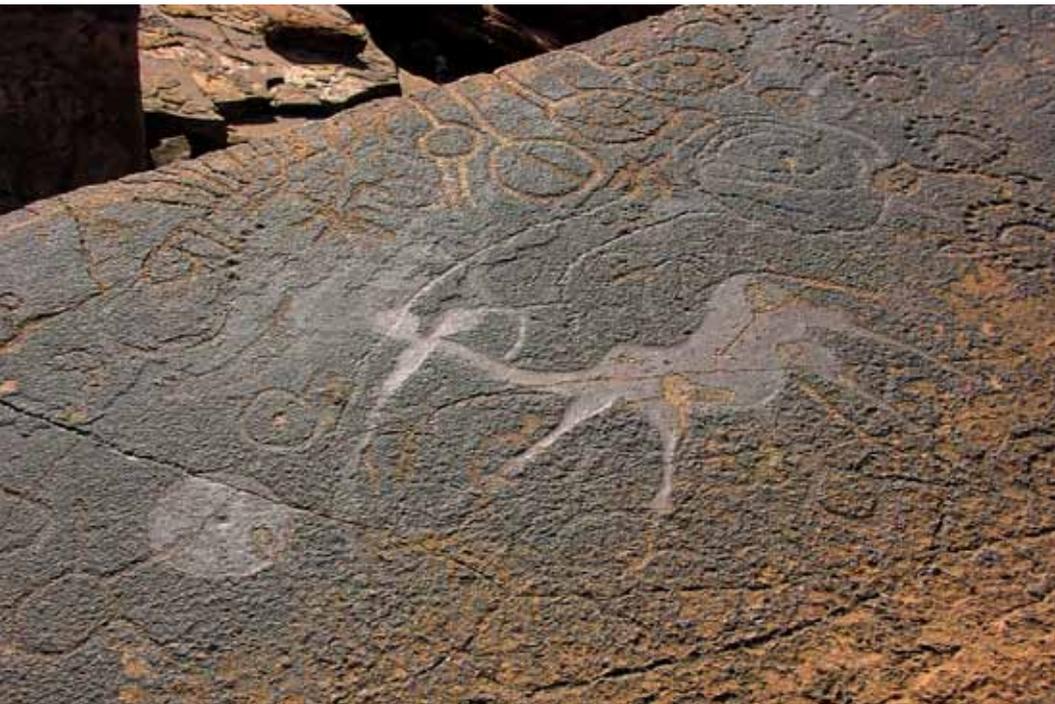
Examples of deliberate placement of engravings include a significant concentration of animal spoor and related imagery at the entrance to a natural tunnel in the rock face which allows movement from one physical space to another. There are also human footprints placed several meters above normal reach, on a sheer rock-face. The footprints may refer to the shaman's sensation of rising through the air as he enters trance, as well as the belief that the shaman could actually fly.

A relatively common example of deliberate placement concerns what are sometimes loosely referred to as abstract, or inanimate subjects. These frequently appear at the edge of large rock slabs and seem at first sight to have been broken by the natural splitting of the rock after the engraving was made. But close examination of these engravings and the

surrounding rocks shows that they were deliberately positioned to overlap the edge of the rock. There are no broken pieces bearing parts of the engraving. This positioning of images relating to the onset of trance may therefore have used the edge of the rock surface as an artistic device possibly signifying the edge of consciousness, in much the same way as fissures and tunnels were used to denote points of entry to the supernatural realm.

The rock art, primarily the engravings, at this site shows that the images were integrated with the terrain, so that significance does not reside in the image by itself but in its placement in the physical space inhabited by the artists and ritual participants. Clearly, the physical qualities of the terrain were important in ritual practice.

The dense clustering of rock art at Twyfelfontein, close to the spring would have had ritual as well as practical importance; while



*The well known dancing kudu engraving, an example of the extremely unusual flat polish technique*



*Anatomically perfect form of a black rhino showing the use of deep pecked technique*

there are suitable rock faces elsewhere in the area that were not used for rock engraving, and many of those on the site itself were used many times over.

The whole site centring on the spring was clearly of immense ritual importance; then, certain places among the rocks were recognized as physical portals, or access points to the supernatural realm, while others answered the special requirements for performance areas. For the Great Dance, adequate space was needed, as well as desirable acoustic qualities.

### Some outstanding examples

Not all of the engravings at Twyfelfontein are open to the visitor as some have become very fragile, and others are situated on unstable, dangerous slopes. The Dancing Kudu panel is on the top of a large flat rock where a viewing platform has been erected for the convenience of the visitor and for the protection of the panel. At a glance it is possible to see that

the engraved surface is parallel to the bedding of the sandstone and therefore vulnerable to fracture. The nearly black surface of the panel is unusual; it is caused by the presence of dark-coloured heavy minerals, such as manganese, which were separated from the lighter quartz grains when the dune sands were transported by the wind.

Kudu are not common in the rock engravings of Twyfelfontein, and this image produced by the technique of flat polishing rather by chipping, provides unique insights into the meaning of the art. Kudu, especially females, played an important part in the ritual life of hunter-gatherers, because of their relevance to the concerns of women. The behaviour of the female kudu was thought to exemplify the attitudes that marriageable women were expected to display, and for this reason the Dancing Kudu engraving may have played a part in women's initiation rites carried out at this site<sup>8</sup>.

There are several features of the Dancing Kudu that refer directly to women's sexuality in the context of ritual trance. The kudu is shown with its neck extended and shoulders lowered, typical of the submissive female when ready to mate. Importantly, in rock art the same posture indicates the state of ritual trance, combined here with the outspread legs and half-raised tail, two further artistic conventions signifying ritual trance. The fact that the Dancing Kudu is shown heavily pregnant amplifies this interpretation. Another possible allusion to women is the polished surface of the engraving which recalls the grindstones used to prepare food from wild plants. Women communicated with ancestral spirits by pounding on rock surfaces near waterholes, and these places often have highly polished grinding surfaces. This could explain polished circle with its central cupule in front of the Dancing Kudu.

Some of the other images on the Dancing Kudu panel might also relate to rituals of female initiation. The abstract figures at

the top of the panel appear to be broken but this is an example of the convention by which the artists used the edge of the rock to show the edge of consciousness, and the onset of ritual trance. The semicircles surrounded by cupules to the right of the kudu could depict the seclusion shelters where young women were confined during initiation. Paintings of initiation rites including such shelters are well known, and there are also detailed ethnographic descriptions of the practice. Although these engravings are highly stylized they very likely represent the small semicircles of upright rocks which may be seen on the area of flat ground in front of the Dancing Kudu panel.

More cross-referencing of hunter-gatherer ritual and details of animal behaviour and physiology are to be seen in the Lion Man panel. The Lion Man itself is also a very fine example of false shading technique, here leaving the natural rock cortex intact on the shoulders and flanks of the lion, to create an illusion of



*The famous Lion Man engraving, showing the use of false shading technique, especially around the torso*

depth. The giraffe immediately behind the lion was done with the same technique, but the rest of the panel, including zebra, rhino, cattle and various antelope all show use of the more commonplace shallow pecking.

Lion occupied a special place in the ritual life of southern African hunter-gatherers; the folklore is replete with lion stories, and these very often refer to the ability of shamans to become lions, or at least take on some of their characteristics. In ritual trance, the shaman would sometimes experience what felt like short hair, similar to that of a lion, actually sprouting from his skin. The fact that people in trance were apt to bite their fellows, was considered another potentially dangerous feline characteristic. Lion were often associated with evil or malignant forces, in contrast to antelope, which represented benign and socially harmonious qualities. Antelope fat was used as an antidote, to be rubbed on

the skin of a shaman under the influence of a lion familiar.

The Lion Man engraving is so named because its paws have five rather than four toes. This shows that the engraving depicts a shaman in the form of a lion. One of the paws has more than five toes, and the tail has a paw at the end. Shamans in trance sometimes experienced what is known as polymelia, the possession of extra limbs. This is a form of somatic hallucination, in which things are felt rather than imagined. The tail of the lion is taken as the extra limb, and it is interesting to note that lion do occasionally show a claw-like growth near the end of the tail, in the tuft of hair at the end. This engraving illustrates both the influence of trance experience on the art, and a highly detailed knowledge of the animal, its physiology and behaviour<sup>9</sup>.

The Dancing Kudu and the Lion Man are unusual among the engravings of Twyfelfontein, but unique among the engravings of

north-western Namibia. These two engravings (and their few related images on the same site) exhibit advanced mastery of technique, both highly idiosyncratic. In contemporary art these distinctions would in all likelihood be explained as marking the work of specific artists. In the rock art context it would be permissible suggest that these highly developed styles had a deeper significance due to the combination of artistic and ritual practice. These are but two of several distinct styles at Twyfelfontein, which, if they were roughly contemporaneous, might reflect the rise of specialist shamans here as elsewhere in the Namib region, during the last one to two thousand years.

### Future prospects and concerns

In Namibia, rock art sites are particularly vulnerable: site management is generally weak, or even absent, and visitor pressure is higher than anywhere else in Africa. Combined with this is the natural threat posed by extremely friable rock, making sites such as Twyfelfontein particularly prone to landslides and other forms of natural deterioration. Without properly trained site management, and full cooperation of the tourism industry, major rock art sites in Namibia will become degraded, so losing much of their value as cultural heritage<sup>10</sup>.

If properly monitored and managed, Twyfelfontein can bear the impact of visitor numbers in excess of 50 000 per year, the level it has recently attained. However, the flow of visitors is uneven, both over the peak and low visitor seasons, where numbers vary by up to five hundred percent, and over the cool and hot hours of the day, where similar variation occurs in both peak and low seasons. The visitor facilities at Twyfelfontein were specifically devised to cater for the average group size, of ten or fewer people. Paths, rest areas and toilet facilities were designed around this average, and the viewing platforms at the main sites were designed to carry a safe maximum of eight people.

Tourist numbers in this part of Namibia have increased ten-fold in the last decade, and Twyfelfontein, as well as several other sites, faced extreme deterioration about five years

ago, when community-based management systems proved inadequate to the conservation problems at the site. Footpaths had become severe erosion gullies which threatened to destabilize important rock art panels; there were no toilet facilities, and much of the site was badly polluted. The emergency repair works undertaken at Twyfelfontein, initiated by the European Community-funded Namibia Tourism Development Programme and the Namibia Archaeological Trust, laid the foundations for the eventual nomination of Twyfelfontein as a World Heritage site.

The methods used in the emergency repairs at Twyfelfontein comply with the UNESCO Burra Charter, especially regarding the use of site facilities that are removable, and that the minimum necessary interventions are made. To meet these standards, visitor pathways at Twyfelfontein were rationalized and old paths that had become erosion gullies were backfilled and closed down. New paths were built using packed stone gabion steps on all steep gradients. Loose gravel was used as a dust suppressant measure, and all handrails and rest shelters were made from recycled scrap-metal, salvaged from old mine workings. The viewing platforms installed at three of the rock engraving panels were made from prefabricated modular components designed to meet industrial safety standards, although the steel parts of the platforms were treated to accelerate superficial rusting and so allow the structures to blend visually into the terrain. Dry compost toilet facilities were installed at the Visitor Centre and two places on the guided routes.

One of the most important requirements for World Heritage nomination is the formulation and implementation of a Property Management Plan. Part of this is the establishment of a visual exclusion zone based on a "view-cape" from the site itself. The idea behind the exclusion zone is to ensure, by agreement of all management stakeholders, that the visual setting of the site is not disturbed by unsightly developments. The undisturbed setting of Twyfelfontein, and the absence of intrusive structures was one of the major features of its World Heritage nomination. The Twyfelfontein



Steps on the visitor pathway constructed as steel gabions filled with loose rubble to allow surface drainage

Property Management Plan also includes a specially devised GIS, linking a graphic and analytical database for the engravings, with a baseline survey of the site and buffer zone, from footpaths, to gravel pits, landing strips, accommodation establishments and all other facilities.

As with other sites in southern Africa, where the rock art is located on communal or state land rather than private property, the Twyfelfontein management plan requires that all stakeholders are involved in the planning, execution and management of site developments<sup>11</sup>. Site management objectives include developing a sustainable local tourism effort which would generate employment, training and small enterprise opportunities. Urgently needed at the site are better coordination of visitor traffic and appropriate training for local guides<sup>12</sup>.

If tourism in the Twyfelfontein area continues to grow at its present rate, visitor numbers will exceed the carrying capacity of the site (estimated at no more than 1 000 visitors per day); guides and site management may find it difficult to control the flow of visitors and facilities may start to deteriorate. The management plan for Twyfelfontein therefore requires that the National Heritage Council, as the responsible authority, investigate ways



An unusual example of super-positioning, with an antelope, probably oryx superimposed on a bird figure

of relieving pressure by spreading the volume of visitors over a number of sites.

The sandstone cliffs of Twyfelfontein are prone to landslides and other potentially disastrous events. Little or nothing can be done to prevent these, but effective site management can control and reduce the effects of human traffic and its tendency to accelerate natural deterioration. Here, a combination of weak management with no technical oversight, and an aggressively profit-driven tourism industry pose a serious threat to the future of one of the world's most remarkable rock art sites.

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Rock art photographs by Markus Weiss.

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## Notes

1. The Afrikaans name Twyfelfontein means "doubtful fountain" and refers to the spring on the hillside above the ruined farmstead built in the late 1940's by David Levin. Levin was one of the hardy pioneers who moved into this part of Namibia after the Second World War. Displaced indigenous people began to return in the 1960's when the colonial government expropriated the farms for resettlement of urbanized Damara communities. The traditional Damara or Khoekhoegowab name, /Uui-//aas, or "place among the rocks" has been revived as an alternative name for the site, in acknowledgement of the small nomadic community removed from the site under colonial rule.

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