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The Solitary Shaman: Itinerant Healers and Ritual Seclusion in the Namib Desert During the Second Millennium AD

John Kinahan

New evidence of ritual seclusion and sensory deprivation, from the eastern margins of the Namib Desert suggests that specialized shamans may have operated alone, and possibly as itinerants, performing ritual services at widely scattered sites. This behaviour has its origins in hunter-gatherer responses to the introduction of pastoralism, and to the emergence of specialist rainmakers and healers during the second millennium AD. *The research reported here identifies and explains important anomalies in the rock art and archaeology of hunter-gatherer religious practice in southern Africa.*

Introduction

Southern African rock art is a rich and complex reflection of beliefs in supernatural agency held by Khoesan-speaking hunter-gatherers (Barnard 1992; Lewis-Williams & Challis 2011). Detailed links have been found to exist between the rock art and the testimony of early colonial-era informants (Lewis-Williams 2000) and these are corroborated by recent ethnographic studies (Guenther 1999), showing a broadly uniform belief system underlying a remarkable diversity of language, custom, technology and folklore traditions. Indeed, among southern African hunter-gatherers, 'religion is far more uniform … than are material aspects of culture and society' (Barnard 2007, 96). Regional similarity, combined with distinct local emphases, is clearly evident in the rock art of southern Africa (Forsmann & Gutteridge 2012). The rock art is fundamentally ritual in character, the shamanic trance dance being 'the central ritual … and its defining institution' (Barnard 2007; Guenther 1999, 181; Lewis-Williams & Pearce 2012).

There has been some criticism of shamanic explanations in the broader field of rock-art studies (e.g. Bahn 2001; 2010; Bednarik 1990; McCall 2007; Quinlan 2000), but within southern Africa, there is consensus among rock-art scholars and ethnologists as to the theoretical soundness of, and the empirical support for, shamanic explanation in the ethnography and rock art (Lewis-Williams & Dowson 1990a; Lewis-Williams & Pearce 2012; 2015). Treating the rock art as representative of shamanic experiences in altered consciousness, through the use of elaborate graphic metaphors, forms a focus of research which continues to yield important new insights into southern African hunter-gatherer thought (Blundell 2005; Challis 2005; Eastwood & Eastwood 2006; Hollmann 2015; Russel & Lander 2015). These, in turn, have entered the more general discussion of shamanic experience (Craffert 2011; Krippner 2000; Winkelman 2002). In this way, ambiguities of evidence and differing interpretations continue to sustain vigorous debate among southern African scholars (Lewis-Williams 2003; Lewis-Williams & Pearce 2012; 2015; Skotnes 1996; Solomon 1998; 2013; Wessels 2010).

This paper is based on a programme of research in the Namib Desert which began by considering the rise of specialist shamanism from within the generalized egalitarian context favoured by most other workers (Kinahan 2001). I have shown that specialist shamans worked from isolated sites as rainmakers, probably for Ovaherero cattle pastoralists (Kinahan 1999), and most recently presented evidence that specialist shamans in the same area played a role in women's initiation rites (Kinahan in press). These studies, rather than concentrating on the rock art as evidence of the shamanic state of consciousness (Atkinson 1992, citing Lewis-Williams & Dowson

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1988, 204), focus on the archaeological signature of the shaman as evidenced by the content of the rock art and associated material evidence, and its landscape setting. Here, I describe evidence of ritual seclusion by specialist shamans, demonstrating that the shaman could operate outside the social group, or band, without the ritual preparation of the communal trance dance. Shamanic activity of this kind involved a degree of itinerancy, thus introducing a novel element to the archaeology of shamanism and rock art in this region.

Other attempts to historicize hunter-gatherer rock art and ritual practices in southern Africa (Mazel 1992) have been criticized as overly chronocentric (Dowson 1993; Lewis-Williams 1993). However, the view taken here is that it is only through chronological controls, whether by direct dating or by reference to known historical events and, most especially, social processes (Blundell 2004; Campbell 1987) that rock-art studies can avoid the stasis that results from reliance on structural or ethnographic models (Smith 2010). I begin in the next section with a brief summary of the trance ritual as necessary background to the argument presented in the body of the paper for secluded, non-communal activity which offers an alternative view of the shaman at work.

The trance dance in life and in art

There are numerous eye-witness accounts of Khoesan trance dance, and descriptions by anthropologists who have worked in the Kalahari are consistent in describing the main features of the ritual (Barnard 1992; Guenther 1999). It is a communal event, taking place usually at night around a central fire with an inner circle of women seated close together, clapping and singing accompaniment for an outer circle of dancing men (Biesele 1993; Marshall 1999). The combination of rhythmic sound and movement, of hyperventilation, intense concentration and trained imagination, helps the healer or shaman to enter a state of trance in which he interacts with supernatural forces and beings that are not visible to other participants in the ritual. The shaman employs his powers to ensure the wellbeing of the community; his experiences while in trance are shared in story and song, and in the pre-colonial period as rock paintings and engravings which survive today on the walls of rock-shelters and on isolated outcrops and boulders (Lewis-Williams 1995).

The shaman achieves a state of trance in three broad stages recognizable as a progression of mental imagery (Lewis-Williams & Dowson 1988). The first of these is an involuntary disturbance of vision, accompanied by light and colour effects, which engender entoptic phenomena such as rapidly moving and repetitive linear and geometric hallucinations. With training, this disorienting experience leads to a second stage of altered consciousness where the mind construes entoptics as iconic visions drawn from familiar, culturally conditioned reality. In the third stage, the shaman experiences a dissociation from the real world and assumes, for example, the form and identity of certain animal species. Thus, the shaman migrates from one realm of existence to another, gaining the ritual potency he requires to carry out his work as healer and sorcerer.

Rock art within living sites and on the open landscape is sometimes associated with natural cavities in the rock; paintings of mythical serpents and other creatures may be shown entering or leaving these, leading some scholars to argue that the crevices were portals to the underworld, the barrier of the rock-face being permeable to the ritual specialist (Lewis-Williams & Dowson 1990b). Thus, supernatural powers, including out-of-body travel, supposedly enabled the shaman to move unhindered through time and space; he could visit the dead as readily as visiting distant communities, and while so doing he could assume the form and attributes of a bird, antelope, or in some circumstances, lion. Although varied in its subject matter, the content of southern African rock art is determined by the spiritual significance of particular animal species. In addition to this evident selectivity, the fact that animal subjects frequently show a range of unnatural characteristics—as do human figures—underlines the metaphorical nature of the art. And, while it may be that not every painting or engraving represents a trance experience, the art belongs to a single cognitive system (Lewis-Williams & Pearce 2012) that is articulated through ritual practices such as the trance dance (Barnard 1979; 1992; Guenther 1975; 1999).

There is some evidence from recent ethnographic studies of increasingly specialized shamanism. This development is attributed by Guenther (1975) to the specific historical circumstances of hunter-gatherer groups having lost their land under colonial rule, so that solitary shamans became itinerant practitioners who moved from one community to another as their services were required (cf. Lewis-Williams & Pearce 2012, 702). An earlier, pre-colonial manifestation of this practice would challenge the argument that shamanism was until then the domain of multiple practitioners in a social context which precluded specialist roles (Lewis-Williams & Pearce 2015, 733). It would also challenge the common assumption that religious practice was relatively static (Lewis-Williams 1984), with specialist practitioners emerging only

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because the population had so declined that large ritual gatherings became uncommon (Lewis-Williams & Pearce 2012).

Rock art and shamanism in the Namib Desert

Stretching over approximately 2000 km along the southwestern coast of Africa, the Namib Desert is characterized by extensive gravel plains and dunefields almost entirely lacking in vegetation. The post-Pleistocene archaeological record shows significantly intensified occupation following the mid-Holocene optimum when hunter-gatherers adopted increasingly specialized subsistence strategies and a pattern of movement reflecting the unpredictability of rainfall events (Kinahan 2005; 2016a).

Although the rock art of the Namib Desert includes both paintings and engravings, these rarely occur at the same site. There are also notable differences in the subject-matter of the two genres; human figures, for example, are numerically predominant in the paintings, but relatively uncommon among the engravings. The larger painted sites, furthermore, tend to be rock-shelters that were used as living sites, while engravings are usually found on scattered boulders and outcrops. Important animal subjects such as giraffe, elephant and rhinoceros are common to both, indicating shared cultural metaphors. Despite differences in style and in technique, trance-related motifs occur throughout the paintings and engravings of the Namib Desert. From these general characteristics it is clear that the Namib Desert rock art belongs to the same broad cultural system as hunter-gatherer rock art elsewhere in southern Africa.

The distribution of rock-art sites on the eastern margins of the Namib Desert is shown in Figure 1, which indicates the location of three sites discussed in the text. Systematic excavations within a major archaeological site concentration, the Dâures massif ('burning mountain' in Khoekhoegowab), show that the distribution of rock-art sites corresponds with an initial occupation of rock-shelters in the higher parts of the mountain about 5000 years ago (Breunig 2003; Kinahan 2001). Excavation results from the Hungorob Ravine in the Dâures massif indicate a shift away from large central rock-art sites which served as home bases to open sites suitable for the establishment of hutted encampments with livestock enclosures, a change that probably occurred during the last 1000 years, when nomadic pastoralism became the dominant mode of subsistence (Kinahan 2001).

A local transition to pastoralism in the Namib Desert followed the acquisition of livestock from herding communities spreading from the interior as far as the desert margins when climatic conditions were favourable. Pottery was first introduced to the hunter-gatherer assemblages in painted rock-shelter sites about 2000 ago, together with the first evidence of domestic sheep (Kinahan 2016b; Pleurdeau *et al.* 2012). There is no indication that hunter-gatherers were displaced in this process and, indeed, archaeological evidence ranging from stone artefact assemblages to food remains shows a high degree of continuity over the last five millennia. Also indicating a local transition was the fact that some of the early sheep bones from the Hungorob sites had been modified as possible ritual objects (Kinahan 2016b). These indicate that the acquisition of livestock had social and religious consequences, a hypothesis that is supported by the rock art at the same sites (Kinahan 2001).

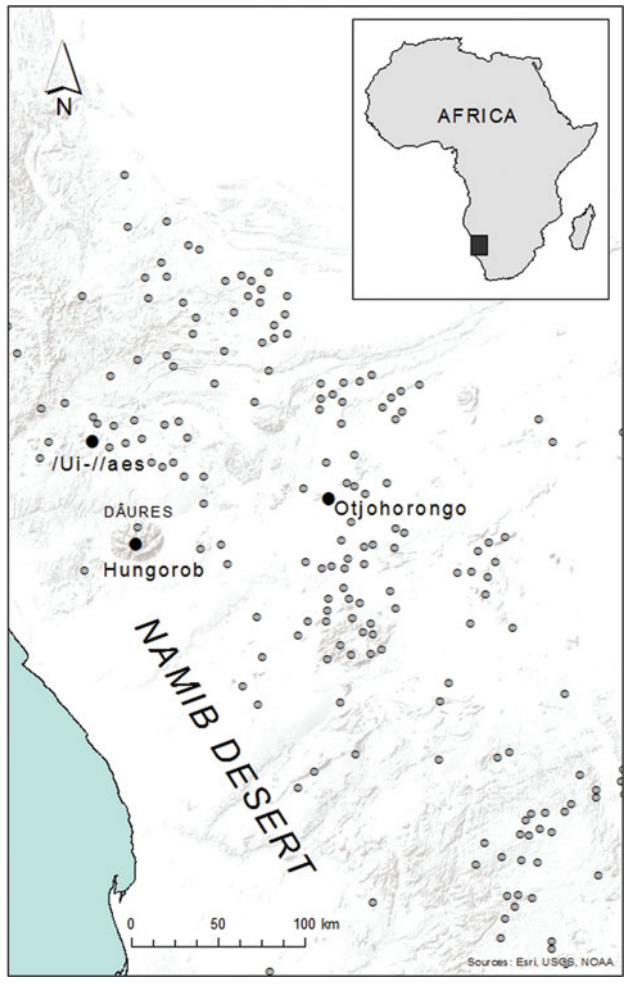

Figure 1. *(Colour online) The distribution of rock-art sites on the eastern margins of the central Namib Desert, showing the location of three sites discussed in the text.*

The rock art of the Hungorob ravine shows a clear progression from predominantly red-brown

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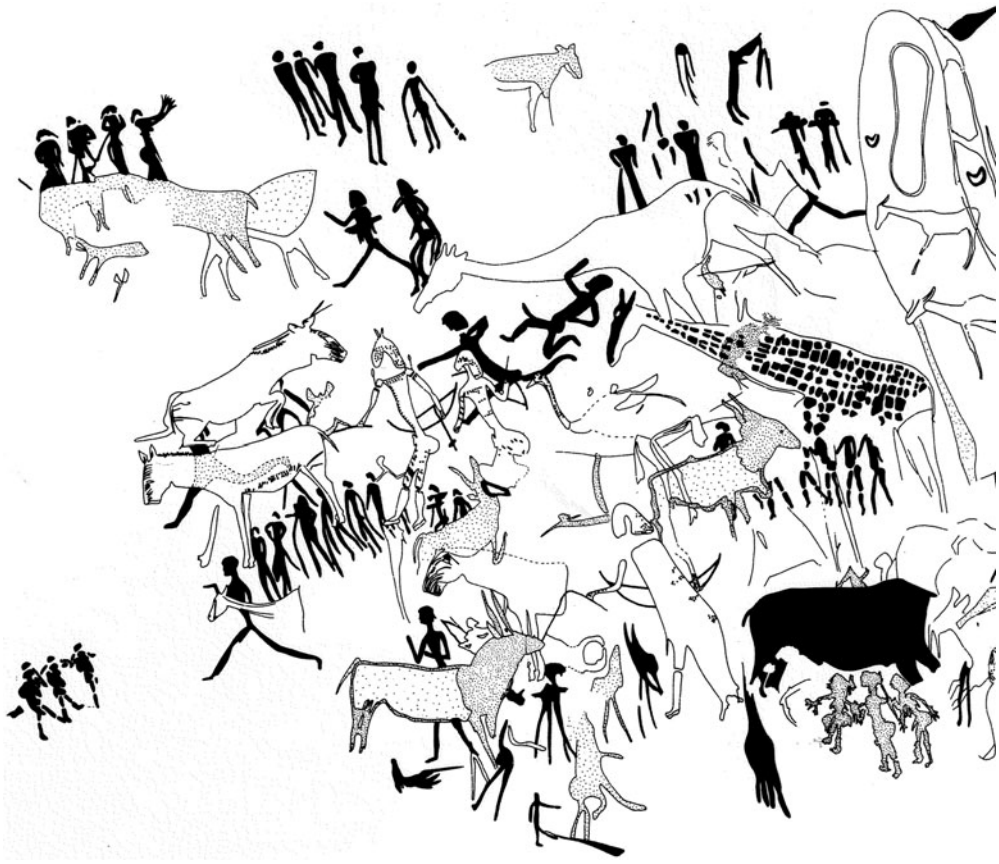

Figure 2. *Part of a complex painted frieze at Snake Rock in the Hungorob ravine, Dâures massif, showing the super-positioning of bichrome and polychrome shaman figures (unshaded at centre and lower right and in Figure 3), on monochrome (solid black) men and women in conventionalized postures associated with the communal trance dance. The section reproduced here is approximately 1.2 m in length (from Kinahan 2001, fig. 2.5).*

monochrome imagery to more finely detailed bichrome and polychrome work. A fundamental shift is apparent in the rock art of the Hungorob Ravine, where a large sample of sites has been documented and studied (Kinahan 2001, 23–45; Pager 1993). This is exemplified in Figure 2, where a complex frieze of paintings at Snake Rock shows clear superpositioning of bichrome and polychrome figures on monochrome human figures. The monochromes are characterized by rows of human figures often in attitudes of dance; women are separated from men, and one figure (top left group) appears to be clapping as if in accompaniment at a dance. A group of men (top centre group) includes one figure with two sticks as used by male dancers to support themselves, while another (top right group) is shown falling forward, a further example of conventionalized trance dance posture (cf. Lewis-Williams 1981).

In contrast to the monochromes, the superpositioned bichrome and polychrome figures in this frieze are all men, highly individualized in appearance, some wearing cloaks, as well as straps or rattles around the knees and lower legs, and carrying various accoutrements associated with ritual performance, such as fly whisks. The figures are finely detailed, some having what appears to be slipper-like footwear, or at least an artistic emphasis on the soles of the feet. Unlike the monochrome figures, these men are not shown as if participating in the communal ritual of the trance dance (Fig. 3). This shift clearly took place within a common art tradition; there is no evidence to suggest that the superimposed bichrome and polychrome paintings might represent the art of a different, immigrant group of people, as was claimed by Jacobson (1980). The evidence of continuity in the rock art includes an emphasis on the same animal motifs, in similar numerical importance, painted or engraved at the same sites.

Lenssen-Erz (2002) has suggested that the observations from Snake Rock are not representative of the rock art of the Hungorob ravine. In fact, however, monochrome depictions of human figures in attitudes

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Figure 3. *Bichrome shaman figures at Snake Rock in the Hungorob Ravine (positioned at centre of Figure 2), showing super-positioning on monochrome figures. The shamans are both male and wear items of body decoration, with the figure on the left showing slipper-like footwear. (Image enhanced with D-Stretch®.)*

of trance are common (e.g. Pager 1993, 60, 363) and several sites in the Hungorob also have elaborate bichrome figures similar to those I have identified as representing specialist shamans (Pager 1993, 83, 429, 456). The shaman figures belong to the later part of an art tradition that persisted over nearly five millennia and are relatively few in number. To argue, as does Lenssen-Erz (2002, 556), that they are therefore unimportant to an understanding of the rock art is to overlook the significance of something that is not only a change in painting technique, but also in ritual practice.

In this new development, depictions of the communal trance dance as described in the ethnographic record are replaced by elaborate and complex individual figures clearly recognizable as ritual practitioners. The archaeological sequence shows only one significant change that might be related to this: the acquisition of pottery and domestic sheep about 2000 years ago. The change in the rock art and the use of sheep bones as ritual objects offer two lines of evidence for the rise of specialized shamans accompanying a social and economic transition to pastoralism (Kinahan 2001, 40–48). In the Hungorob and elsewhere in the same region there is some evidence of specialized ritual practice continuing after this transition, into the last thousand years, and co-existing with pastoralism on the margins of the Namib Desert. I turn to this evidence in the next section.

The solitary shaman

Isolated mountain ravines such as the Hungorob were important refugia during sustained dry periods in the late Holocene (Kinahan 2016a) and it is therefore unsurprising that the rock art contains some depictions of rain and, evidently, rituals of rainmaking. The significance of such paintings has not been widely recognized in the rock art of Namibia. For example, describing an elaborate frieze which combines streaming rain and a single bichrome shaman figure resembling those at Snake Rock, Pager (1993, 82, pl. 1.2) is puzzled by the fact that this remarkable painting is located in a cramped and secluded shelter, difficult of access and apparently hidden from view. There are at least two further sites with paintings of rain in the Hungorob ravine (Pager 1993, 172, pl. 2) and more elsewhere on the Dâures massif, most being relatively secluded.

Detailed evidence that specialist shamans may have worked alone, or at least outside the context of the communal trance dance, is found at two other sites in this region, more than 120 km apart. The first of these, at Otjohorongo ['place of the kudu' in Otjiherero] is a rock-shelter hidden behind a screen of dense vegetation on the upper slopes of an isolated granite outcrop. The second, at /Ui-//aes ['place among rocks' in Khoekhoegowab, also known as Twyfelfontein, 'doubtful fountain' in Afrikaans] lies on the foot-slopes of a sandstone cliff with a dense concentration of predominantly engraved rock art (Fig. 1).

At Otjohorongo, an elaborate painted frieze depicts a rainmaking ritual in which human figures are associated with a large painted elephant. As with the site described by Pager (1993), the Otjohorongo site is secluded and has almost no living space, and scant evidence of occupation. The elephant shown in Figure 4 forms the centrepiece of the frieze, with rain streaming from its belly, and a bolt of lightning issuing from between its front legs. At the same site, there is also a group of paintings in which three elephant are surrounded by figures armed with bows and sticks. Some of the figures are shown reaching to the elephant,

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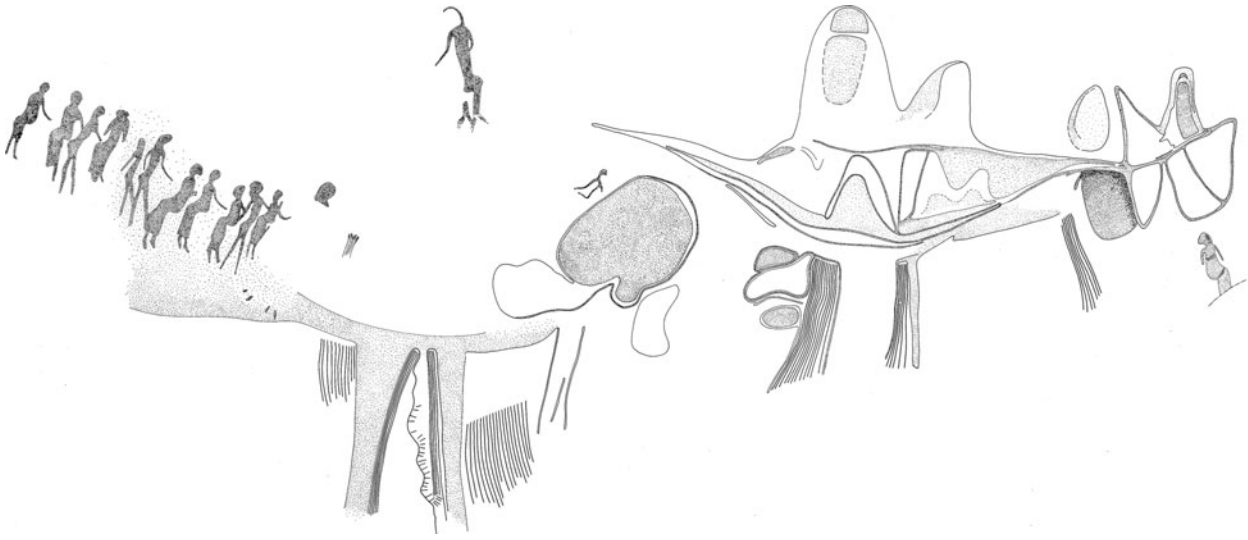

Figure 4. *Part of a complex polychrome frieze at Otjohorongo. Streams of rain are shown pouring from the underside of an elephant, with a bolt of lightning between the front legs. The elephant is accompanied by a line of women, some with arms extended as if clapping, facing a single male figure with fringed dancing apparel below the knees. The section reproduced here is approximately 2.8 m in length (from Kinahan 1999, fig. 23.6).*

with one holding an elephant by the tip of its extended trunk. Similar paintings of human figures interacting with elephant occur in the Hungorob ravine (Pager 1993, 79, pl. 4). At Otjohorongo, the elephant are shown as if being drawn towards a broad streak of mineral precipitate from rainwater cascading down the cliffs, a clearly deliberate positioning. From the paintings at the site, I inferred that rainmaking was a form of mimesis in which the shaman would associate elephant with large rocky features, with the purpose of making rain (Kinahan 1999).

At /Ui-//aes, some 120 km to the northwest, over 2000 engravings and about 50 paintings have been documented on exposed bedrock and in small rock-shelters (Kinahan 2010). Occupation of this site dates from the mid-Holocene (Wendt 1972) and appears to have continued intermittently thereafter. There are several engravings showing cattle in association with various antelope and other fauna commonly found among the ritual rock art of the Namib Desert. This association of cattle and antelope indicates a continuation of shamanic practices into the last thousand years, either in parallel or as part of a complex mix of pastoral and hunter-gatherer subsistence (Kinahan 2001). Table 1 lists radiocarbon dates from rock-art sites on the eastern margins of the Namib, dating to the fifteenth and sixteenth centuries and associated with images of livestock, rainmaking and evidence of initiation rites.

Beside the physical limitation of size and the secluded location of the site at Otjohorongo, there is strong evidence that one part of the shelter was used by a single individual, perhaps in preparation for the rain-making activity depicted in the paintings at the site. A horizontal parting in the granite creates a cramped vestibule at the back of the site. The space within this chamber is quite dark within less than 3 m of its opening. There is less than 1 m clearance beneath a single painting of an antelope on the ceiling above. Remarkably, this unusual occurrence is paralleled at /Ui-//aes, in a similar vestibule formed in the hollow beneath a large sandstone boulder. This chamber is of almost the same dimensions as that found at Otjohorongo and each contains a single painting of an antelope in a position where natural light hardly penetrates. Simplified cross-sections of the two vestibules are shown in Figure 5, which illustrates the cramped space and the position that would have to be adopted to execute or to view the paintings overhead. In both instances there are some paintings outside the vestibule entrance, but only one painting within.

At the two sites, the positions of the paintings on the ceiling and the presumed position of the vestibule occupant are approximately 2 m beyond the reach of direct sunlight. Furthermore, at both sites the opening of the vestibule is considerably narrowed by protruding rocks forming natural barriers to exterior sources of reflected light (Fig. 5). To compare the illumination of the two sites, measurements were carried out using a hand-held Extech® digital light meter with a minimum resolution of 0.1 Lux (0.00092 foot candles/fC),

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Table 1. *Calibrated radiocarbon dates from the last 1000 years for specialist ritual sites on the eastern margins of the Namib Desert (* using OxCal Version 4.2: Bronk Ramsey 2016).*

Site location	Lab. no.	^{14}C age years BP	Calibrated dates AD (probability range*)	Median age AD	Reference
Otjohorongo	Pta-5471	350 ± 50	1460–1654 (95.4%)	1562	Kinahan (1999)
/Ui-//aes	KN1.469	370 ± 50	1459–1644 (95.4%)	1556	Freundlich *et al.* (1980)
Hungorob	Pta-3896	370 ± 50	1459–1644 (95.4%)	1556	Kinahan (2001)
	Pta-3794	440 ± 45	1430–1520 (62.5%)	1491	Kinahan (2001)
			1537–1626 (32.9%)		

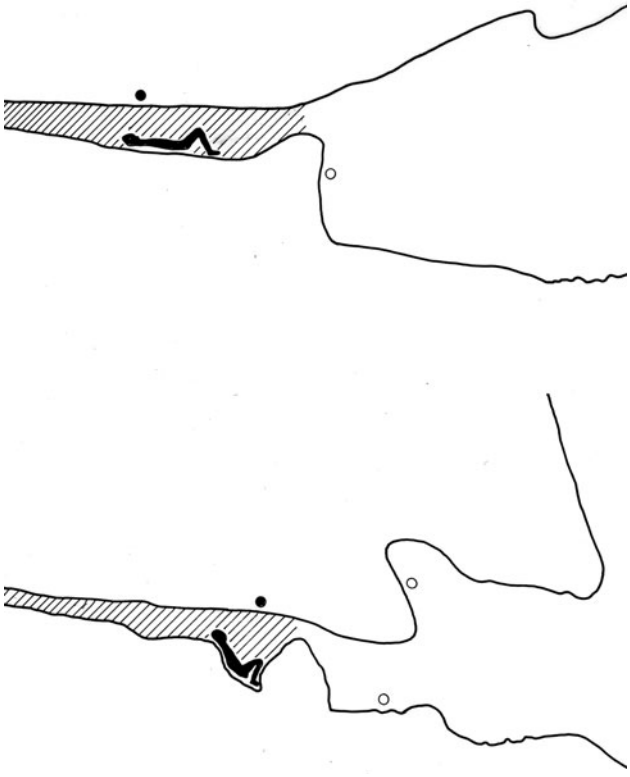

Figure 5. *Simplified cross-sections of the vestibules at Otjohorongo (above) and /Ui-//aes (below) showing the area of darkness (hatched), as well as positions of paintings in daylight (open circles) and darkness (black circles). The human figure is based on an average adult male stature of 1.62 m, derived from skeletal remains dating to within the last 1000 years in the Namib Desert (Kinahan 2013).*

and fitted with a sensor calibrated to a standard incandescent lamp at a colour temperature of 2856K. Illumination was measured at the painting itself and immediately outside the vestibule. Measurements for the two sites presented in Table 2 show that ambient light levels under normal daylight conditions are between 150 and 250 times greater than lighting within the vestibule at both sites, and that the level of illumination in both vestibules is almost the same.

Table 2. *Comparative illumination of two Namib Desert rock-shelter sites showing relative darkness of interior vestibules with overhead paintings.*

Site location	Outside AMBIENT LIGHT	Inside REFLECTED LIGHT
Otjohorongo	2.75 kLux	0.011 kLux
	(255.48 fC)	(1.02 fC)
/Ui-//aes	2.49 kLux	0.017 kLux
	(231.33 fC)	(1.58 fC)

At Otjohorongo and at /Ui-//aes the space within the vestibule is too small to accommodate more than one person beneath the painting itself. Another characteristic the sites have in common is that the slope of the ceiling and that of the floor requires that the occupant lie supine with feet facing outward in order to see the paintings in upright perspective (Fig. 5). Looking outward from the vestibule has the effect of producing light disturbance on the periphery of the vision when the gaze is shifted from the normally bright exterior to the dark interior and the painted ceiling. This, together with the confined space, the consistently cool temperature within the vestibules and the paintings themselves, would help to reduce visual and other sensory distraction from outside.

The vestibule painting at Otjohorongo is indistinct but recognizable as an antelope, executed in white and about 10 cm high. Hornless, with large erect ears, high withers and broad neck, the animal is most likely a female kudu *Tragelaphus strepciceros*. The painting at /Ui-//aes is a well-defined red-brown and white bichrome, about 20 cm high (Fig. 6). It is headless, but the strongly recurved lower neck, high withers and deep chest are characteristic of the kudu, as are the spaced vertical white stripes on the body. The white lower legs and hocks do not correspond with the natural markings of this or any other antelope species in this area and must therefore represent iconographic convention. There is a close resemblance between the hooves of the kudu at this site and the lower legs of some specialist shamans in the rock art of

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Figure 6. *The female kudu painted on the ceiling of the vestibule at /Ui-//aes. (Image enhanced with D-Stretch®.)*

Snake Rock in the Hungorob ravine (Fig. 3), both having distinct slipper-like footwear. The combination of human and animal traits in the vestibule may thus represent the final stage of altered consciousness in which the shaman takes on the physical characteristics of the animal (Lewis-Williams 1988).

It is significant that both vestibules have paintings of female kudu, a species uncommon in the Namib; they are browsers by nature and therefore mainly confined to areas with some shrubs or trees (Smithers 1986). Kudu are also notably scarce in the rock art of the Namib, and one sample of 815 identifiable painted motifs spread over 44 sites in the Hungorob ravine included only 14 examples, restricted to only three sites (Kinahan 2001, 20). The rock art survey carried out by Pager (1993, 539–662) identified only nine kudu in the same area. At the site of /Ui-//aes, probably the largest concentration of rock engravings in southern Africa (Dowson 1992), only seven kudu occur among 2075 identifiable motifs (Kinahan 2010). Direct evidence at /Ui-//aes linking shamanic women's initiation rites with an engraving of a female kudu (Kinahan in press) places the site in the same time range as rainmaking at Otjohorongo, as well as the Hungorob sites listed in Table 1. Furthermore, the specific association of female kudu and women's initiation suggests that the kudu in the vestibule at /Ui-//aes formed part of the shaman's preparation for this ritual event.

While the ethnography of trance performance among the Khoesan emphasizes the importance of the communal trance dance (Guenther 1999; Marshall 1999), some of the conditions associated with the dance as a means to enter a state of trance, such as rhythmic sound and movement, hyperventilation and autosuggestion, may also be achieved in isolation. This is the most likely function of the vestibules described here. However, physical seclusion is not the only means to achieve a state of altered consciousness outside the context of the communal trance dance. Depictions of entoptic phenomena are a common feature of the engravings at sites such as /Ui-//aes, where

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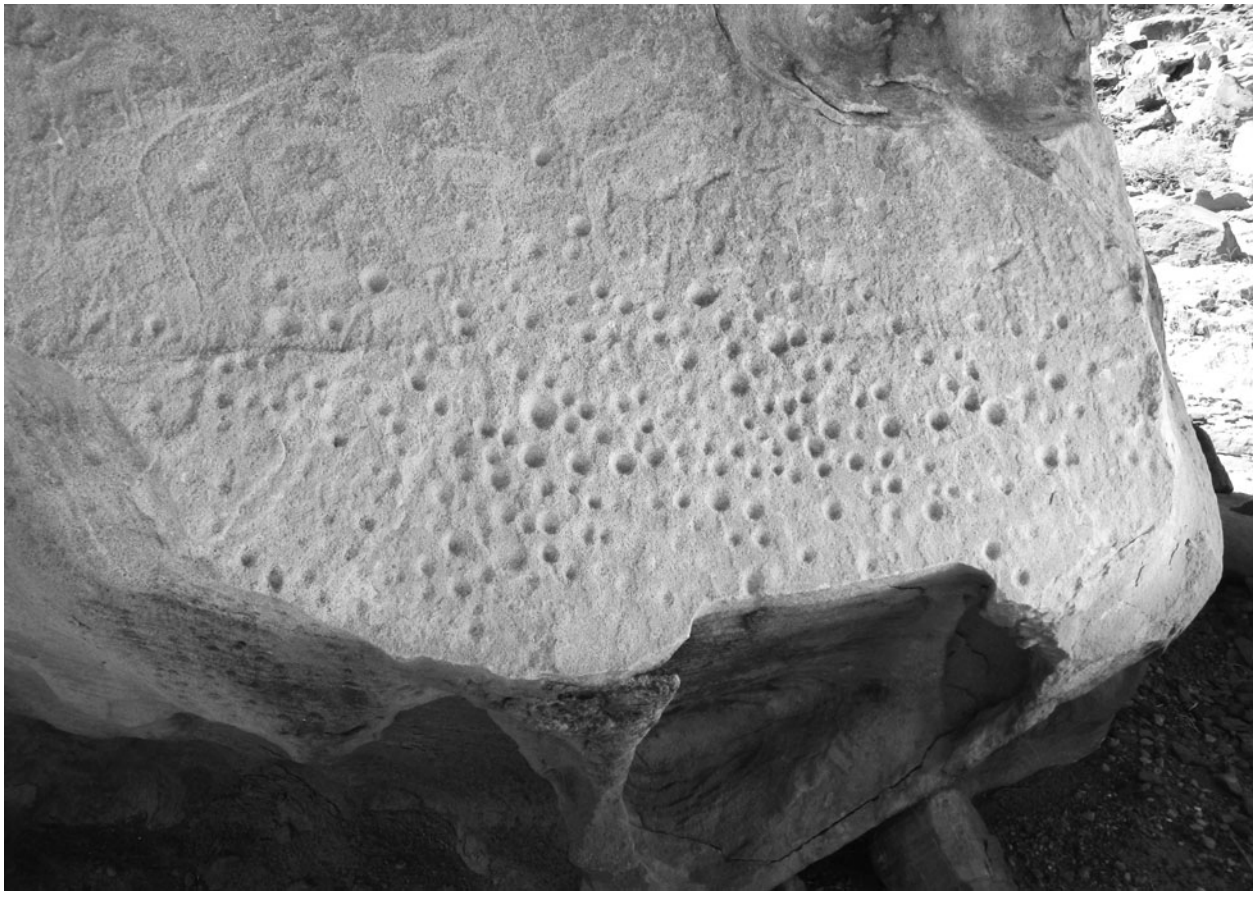

Figure 7. *Rock-face with cupules at /Ui-//aes. The lower edge of the surface is approximately 1 m above ground level and the upper limit of the cupules about 0.6 m higher.*

they occur in the open on boulder faces. An association between these motifs and the initial stages of altered consciousness, as mentioned earlier, implies that such engravings could have been used outside the setting of the trance as part of solitary ritual preparation.

A possible link between entoptic engravings and ritual preparation is exemplified at /Ui-//aes by a boulder densely covered in cupules (Fig. 7). These were produced by sustained grinding and chipping at the surface, actions not unlike the rhythmic, monotonous clapping associated with the trance dance, where women strike their hands together with the palms cupped, producing a sharp, popping sound. The rock surface in this case is 1 m above the ground and the highest cupules are 0.6 m higher; the rock leans away at 18°, so that it forms a conveniently positioned working surface on an otherwise rubble-strewn slope. Sustained tapping might simulate the rhythmic and monotonous effect of clapping, and thus it may be argued that engravings of cupules and entoptics at /Ui-//aes also represent solitary preparation for trance performance.

This example shows that, while the vestibules are evidence of ritual seclusion, the rock art and its physical setting may contain other previously unrecognized evidence of solitary preparation for shamanic activity. A site of solitary ritual preparation need not be physically secluded or remote, and it therefore follows that the ritual landscape is not necessarily self-evident from the nature of the terrain. At the scale of a local rock-art site complex, and at the scale of the greater landscape, social sanctions may have existed to ensure that access to ritual sites was controlled. Even though /Ui-//aes is no longer a functioning ritual site, elderly people in the area recognize its importance and recall that, as children, they were forbidden to approach the hillside (Kinahan & Kinahan 2005).

The itinerant shaman

Physical mobility over the landscape was essential to the survival of southern African hunter-gatherers, and nowhere in the region would this requirement have had greater immediacy than in the Namib

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Desert. Khoesan ethnography augments the archaeological and rock-art record of this region, by showing that mobility depended on the maintenance of social networks through mechanisms of kinship (Barnard 1992), name-sharing (Marshall 1999), gift and food exchange (Wiessner 1977; 1981) and many others. Throughout, the areas over which hunter-gatherer bands moved were relatively stable, such that population size rather than range extent varied with resource availability (e.g. Winterhalder 2001). In the supernatural realm, religious beliefs also emphasize the value of extended connections, shamans being credited with powers of out-of-body travel (Lewis-Williams 2002, 139) to visit distant relatives, or to capture the mythical rain animal and lead it to the place where rain is needed, as exemplified at Otjohorongo (Fig. 4) (Kinahan 1999; see also Lewis-Williams & Pearce 2004).

Wiessner (1982), working among the !Kung San of the Kalahari, documented a system of reciprocal relations generally known as *hxaro,* which serves as an effective means of risk management by fostering bonds between individuals living in geographically separate areas through mutual exchange of gifts. *Hxaro* does not rely on chance friendships which might not endure, but on a structured framework of kinship relations. It is reinforced by a multiplicity of links between individuals and family groups, such that one person may have more than 15 *hxaro* partners representing a diversity in age, gender and area of residence (Wiessner 1994). The scale and potential complexity of such networks is illustrated by one village, /Xai /Xai, having 35 active *hxaro* participants who maintained a total of 123 partnerships within a radius of up to 25 km, declining with distance, but still including a total of 510 partnerships within a radius of 200 km (Wiessner 1994, 108, table 1). The spatial extent of the *hxaro* network is in effect a social universe where economic and kinship relations exist alongside ritual activities such as healing and initiation ceremonies which frequently involve congregation of participants and itinerant movement by specialist shamans (Biesele 1993; Guenther 1975).

Table 3 summarizes unpublished data from Wiessner on the geographical extent of operation by four different !Kung shamans. These specialists moved from place to place, visiting 10 or more sites each, separated by distances of up to 100 km or more. Their range of movement was between 25 and 225 km, and covered an average of over 14,000 sq. km. Given that these movements would have been roughly co-extensive with *hxaro* relationships, they help to define the size of the area that might be covered by such social networks, always bearing in mind that these would have been overlapping rather than strictly bounded spatial and social entities. For comparison, Table 3 also presents summary data for the area covered by the rock-art sites on the eastern margins of the Namib Desert discussed in this paper. It is significant that the distances between sites and the inferred range of movement is comparable to that of the Kalahari shamans. The area covered by the Namib Desert sites, over 16,000 sq. km, also falls within the range of the areas covered by the !Kung. These comparisons indicate that the spatial distribution of the rock-art sites approaches the average operating area of itinerant healers among the !Kung and suggests an approximation of the likely extent of movements by itinerant shamans in the Namib Desert.

Table 3. *Distances of travel and areas of operation for Kalahari ritual specialists, compared with Namib Desert rock-art sites discussed in this paper. (* Numerical values calculated from unpublished field data from P. Wiessner.)*

Kalahari ritual specialists*	Average km between sites (n)	Area covered sq. km	Range km
A	113 (7)	11,250	40–225
B	58 (10)	10,400	25–83
C	68 (12)	17,920	30–180
D	63 (11)	17,997	25–105
Average (A–D)	76 (10)	14,391	25–225
Namib rock-art sites			
(this paper)	89 (3)	16,741	63–103

If a spatially patterned system of reciprocal relations similar to that of the !Kung also existed in the Namib Desert, its archaeological signature would probably include evidence of raw materials and finished artefacts being exchanged over distances corresponding to those documented in the Kalahari. Reciprocal exchanges of this nature could be represented by archaeological finds including high-value lithic raw material (Richter 1994), ceramics (Kose 2009), marine shells (Kinahan 2001) and copper beads (Kinahan & Vogel 1982). Specialist ritual activity would have taken place within the same networks as the exchange of utilitarian items, and a find of ritual objects at Falls Rock Shelter in the Hungorob ravine is therefore of interest. This comprised a number of insect-cocoon dancing rattles similar to those known in the ethnography and depicted in the rock art (Lewis-Williams & Dowson 1989), as well as ostrich feathers stained with ochre and a suspected ritual vessel made from the cranium of a Cape hunting dog *Lycaon pictus* (Kinahan 2001).

Equally significant is evidence from the last 1000 years at the same site of high-value exchange items, including copper and iron beads, and cowries *Cypraea*

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Figure 8. *Leather bag with cache of copper and iron beads (left), and cowries* Cypraea annulus *(lower right), from a mid second-millennium* AD *context at Falls Rock Shelter, Hungorob Ravine. This, together with a number of other items, was found wrapped in tree bark and buried beneath the grass lining of a sleeping hollow.*

annulus, found as a buried cache at Falls Rock Shelter (Fig. 8). This may represent the acquisition of exotic items from outside the immediate limits of hunter-gatherer exchange networks, such as when specialist shamans provided ritual services to pastoral communities where metal objects circulated as value equivalents to livestock (Guenther 1975; Kinahan 2001). A socketed iron spearhead from the Otjohorongo site may be a further example of relations with pastoral communities (Kinahan 1999), as might the engravings of cattle at /Ui-//aes (Kinahan 2010). Specialist shamans were clearly active within local networks of hunter-gatherer bands in the Namib Desert, but to demonstrate that they were itinerant in their movements requires evidence linking the shaman with more than one site.

This parallel existence of the shaman, intersecting with band life in the ritual setting, involved the use of seclusion sites for ritual preparation, and other remote and inaccessible sites without evidence of domestic activities. The evidence for this separation is not always unequivocal, as for example, in the line of dancing women accompanying the shaman and the rain elephant at the Otjohorongo site (Fig. 4). At first glance, the painting might be taken as a depiction of a communal trance dance, thus contradicting the suggestion that this was a site of specialized, solitary rain-making. Bearing in mind the cramped space at the

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site, however, the women are probably metaphorical, representing the role of such accompaniment, rather than the actual presence of dancing women at the rain-making ceremony, as might be the case in communal ritual events. Importantly, Lewis-Williams and Pearce (2012, 702) note that, with the appearance of specialist shamans during the historical period, the choreography of the trance dance changed, so that solitary shamans performed with or without clapping women, and not necessarily in a circular dance. The solitary shaman facing a line of clapping women at Otjohorongo (Fig. 4) could depict this change in ritual behaviour taking place at an earlier stage than anticipated by these authors.

The women's initiation ceremonies at /Ui-//aes involving specialist shamans were probably irregular events, with the presence of the shaman arranged accordingly. Initiation at this site centred on the female kudu as metaphor and exemplar of the social values attached to the role of women. Following the ethnographic descriptions of Marshall (1999), the initiation process was largely concerned with instruction of the initiate by older female relatives. At the same time, initiation as a rite of passage or transition from one state to another, falling within the sphere of shamanic practice (Barnard 1979; Lewis-Williams & Pearce 2004), would require the attendance of a ritual specialist. The vestibule site at /Ui-//aes, used in solitary preparation for ritual activity, is situated only 400 m from the women's initiation site. The shamanic importance of such natural cavities is attested in other southern African rock art (Lewis-Williams & Dowson 1990b). At this site, emerging from the vestibule, the shaman would have appeared as if from the supernatural realm itself.

The female kudu painted on the vestibule ceiling at /Ui-//aes (Fig. 6) does not only provide a strong circumstantial link with the women's initiation site: it also hints at the possibility that, in this instance, the shaman may have travelled to the site from the Hungorob ravine, 60 km to the south. The small number of paintings at /Ui-//aes includes some bichrome examples and these, like most rock art in the Namib Desert, are highly idiosyncratic in style. It is therefore noteworthy that the kudu in the vestibule at /Ui-//aes resembles a bichrome kudu at Snake Rock in the Hungorob ravine: the body, with thin vertical white stripes, is edged in white, and the lower limbs are an unnaturalistic white. As I have pointed out, the hooves of the kudu at /Ui-//aes have the same unusual slipper-like footwear as the shaman figures at Snake Rock (Fig. 3). If, therefore, the shaman assumes the form of an animal metaphor, then details such as the hooves show that the kudu in the vestibule is an itinerant ritual specialist visiting /Ui-//aes, apparently to participate in the initiation of women.

Evidence suggestive of links between the Hungorob sites, Otjohorongo and /Ui-//aes includes similarities in the style and execution of the rock art, the importance of the female kudu motif, and the setting of the sites. Separation and concealment is evident in the case of rainmaking sites in the Hungorob and at Otjohorongo, and physical seclusion evident in the case of the vestibules at Otjohorongo and /Ui-//aes. Specialized shamanic activity involving secluded sites is common to all three sites which from the available radiocarbon dating evidence (Table 1) indicates a peak of activity in the first half of the sixteenth century. This dating is fully 300 years in advance of colonial occupation and the disintegration of hunter-gatherer society, which Lewis-Williams and Pearce (2012) consider to be preconditions for the appearance of specialized shamanism. The Namib Desert evidence strongly supports a transition in hunter-gather society and ritual practice prior to first contact. Moreover, this development is consistent with evidence of a still earlier emergence of specialized shamanism in response to the introduction of domestic livestock approximately 2000 years ago (Kinahan 2001; 2016b).

Considering that the spatial extent of shamanic activity may have approximated that of the social network of hunter-gatherers involved in both material and non-material exchanges, an archaeological signature of itinerant shamanism might not be easily distinguished as a discrete component of the archaeological record with its own distinct spatial pattern. The material evidence for itinerant shamanism in this area does, however, include an array of specifically ritual-purpose sites. These confirm the presence of specialist shamans, while a number of similarities between the rock art and the physical setting of the ritual sites suggests that these were used by either one particular shaman or a small number of practitioners with closely similar fields of specialization, techniques of painting and approaches to ritual preparation and performance. The available dating (Table 1), moreover, places this phenomenon within a relatively narrow period. An apparent emphasis on what were probably irregular events, such as initiation and rainmaking, rather than general healing rituals, could point to the work of a small number of specialists operating within a limited area such as that containing the three main sites described here.

The key relations between the three sites described in this paper are set out as a Venn diagram in Figure 9. The diagram shows that shamanic ritual practice at the three sites includes a number of

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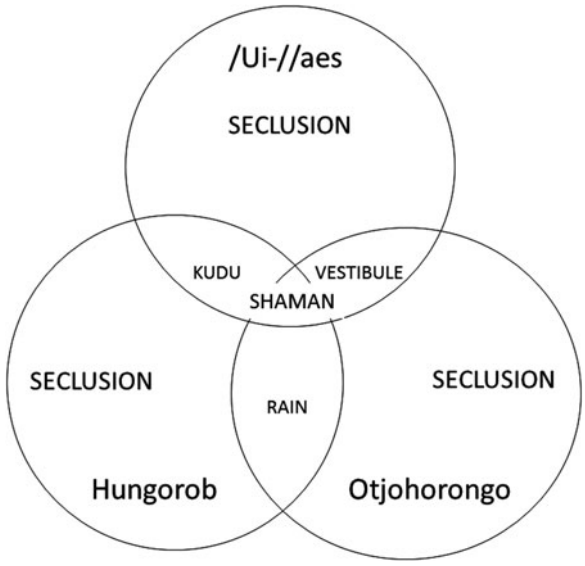

Figure 9. *Venn diagram showing the relations between three shamanic ritual centres in the Namib Desert in the first half of the sixteenth century.*

important shared features. Thus, the common purpose of rain-making in the Hungorob and Otjohorongo is in both cases associated with secluded sites. These sites have elaborate and complex rock art, characterized by finely detailed bichrome and polychrome friezes. The occurrence of high-value exchange items such as metal and cowries at the sites indicates that rain-making took place in the last 1000 years as part of an interaction with pastoralist communities in this area. The occurrence of elaborate bichrome female kudu links the Hungorob sites to /Ui-//aes, and shamanic involvement in women's initiation, as a second area of ritual specialization. A parallel link is indicated between Otjohorongo and /Ui-//aes, where solitary ritual preparation involved the use of natural vestibule chambers. The presence of female kudu, a highly uncommon rock-art motif, in both vestibules and in the Hungorob provides a suggestive link between the three sites. Finally, the presence of cattle in the rock art of /Ui-//aes links this site with the Hungorob and Otjohorongo sites as shamanic ritual centres within a region where hunter-gatherer and pastoral communities co-existed.

The evidence presented here agrees with the model suggested by Wiessner (1982; 1994; and unpublished data summarized in Table 3) in which itinerant movement and exchange partnerships create dense proximal networks which also support more distant connections. The evidence also recalls the observations of Guenther (1975) in which the services of the shaman to pastoral and other adjacent communities could introduce high-value items to the hunter-gatherer exchange network, here exemplified by iron, copper and cowrie shells recovered from two of the sites. However, it is no less important to an emic understanding of the hunter-gatherer shaman in the Namib Desert that the landscape of his performance and itinerancy is also a supernatural terrain that does not conform to conventional notions of time and distance and involves travel in another dimension.

Set alongside evidence of social and economic complexity in the Namib Desert, this evidence of specialization in the ritual sphere rests on a common basis of broad cultural phenomena including language, belief, cognition and technology among southern African hunter-gatherer communities (cf. Barnard 1992; Mitchell 2002). To the extent that extreme environmental conditions may elicit cultural responses including refinements in strategies of subsistence and information sharing, itinerant ritual specialists would have played an essential part in maintaining social networks over large parts of the desert. Therefore, the agency of the itinerant shaman adds an important new element to our understanding of the archaeological evidence of hunter-gatherer communities, especially under conditions of extreme aridity. This provides a refinement of the generally held notion in southern Africa, of hunter-gatherer ritual behaviour based on the principle of egalitarianism reinforced by ritual sanction. The broader environmental conditions and material archaeological record of hunter-gatherers in southern Africa clearly require a more nuanced explanatory framework.

Conclusions

The evidence from the Namib Desert contradicts some conventional views on religious beliefs associated with the rock art of southern Africa. For example, it is generally held that multiple individuals who were knowledgeable and experienced in the traditions of ritual healing acted as shamans on an *ad hoc* basis. Their work done, they would return to their everyday role in a community founded on principles of egalitarianism. A more permanent status as shaman has important implications for southern African rock-art studies. Similarly, the central importance of the communal trance dance in southern African hunter-gatherer religious life is corroborated by the fact that the rock art was not hidden from view, but openly visible in the communal living space. But this precept is not based on a necessary principle of hunter-gatherer social organization; rather, it is a descriptive account based on the contingencies of the historical

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ethnographic record, with supporting evidence from rock art and the archaeological record.

It follows that new evidence may emerge that cannot readily be accommodated within the prevailing view of the social institutions represented by the rock art. The evidence presented here favours the rise of ritual specialism in the Namib Desert, and adds further new details of shamanic behaviour, including solitary preparation for ritual activity, and evidence of itinerancy. Having shown that the cultural practices of Khoesan hunter-gatherers clearly do not preclude specialization and the use of seclusion and sensory deprivation as means of preparation for ritual performance, I would suggest that similar evidence elsewhere in southern Africa may have been overlooked or misconstrued. The evidence from the Namib Desert does not only point to the existence and the importance of ritual specialization; it shifts the focus of attention to the archaeological and landscape setting of shamanic work, which has until now been confined to the evidence of the rock art itself and the historical ethnographic record.

By linking sites at both the local site-complex scale and at the wider landscape scale—in both the conventional sense and, by implication, that of the supernatural—this paper has shown that shamanic performance has a choreographic element that is archaeologically attested. This can be observed in the elements of a single site, such as in the emergence of the shaman from the vestibule at /Ui-//aes to carry out his functions in an initiation rite elsewhere in the same site complex. Added to this element of choreography and performance in the ritual setting is the likelihood that the choice of sites and their relational proximity was itself part of a ritual performance that was intended to be revelatory, in that it may have been intended that the shaman should be seen to materialize at a chosen moment.

While there are some items of material culture, such as the rock art and a small number of ritual objects, that may directly attest to the work of the shaman, other items may have important, but less direct, ritual implications. For example, lithic raw materials, animal parts, pottery sherds and suchlike may have ritual meaning beyond the utilitarian categories they are assigned to in archaeological assemblage description. In the context of women's initiation at /Ui-//aes, I have shown that the female kudu serves as a nexus of both ritual practice and everyday work, such that the engraving of the kudu, executed by a highly unusual technique of flat polishing, simulates the surface of the grindstones used by women to prepare wild grass seed (Kinahan in press). This not only shows the ritualization of simple subsistence tasks, but it questions the degree to which the material evidence of ritual can be defined by shamanistic rock art.

This paper uses research carried out in the Namib Desert over two decades, presenting a synthesis based on a series of key observations on shifts in ritual practice and its social context, linked to both the archaeological record and the evidence of rock art. The results support the argument for ritual specialization beginning about 2000 years ago with the start of a local transition to nomadic pastoralism. Rainmaker shamans, operating as solitary practitioners, were part of this autochthonous development, as were other specialists who presided over events such as initiation rites. The new evidence presented here corroborates this view by revealing the practice of ritual preparation in seclusion.

The rock art of the Namib Desert shows that shamanism, as understood from southern African rock art, is not only more complex than it has appeared until now, but that the shaman played a dynamic role in the interaction between hunter-gatherer and pastoralist communities during the last two millennia. The evidence presented shows that the institutions of ritual practice were highly responsive to changing circumstances, shifting to a form of specialized shamanism long before this is commonly supposed to have occurred as a result of hunter-gatherer pauperization under colonial rule. The concept of specialized and itinerant shamanism proposed in this paper adds a new dimension to rock-art studies that complements the emerging archaeological picture of changes towards more complex hunter-gatherer behaviour during the pre-colonial era in southern Africa.

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