

Article

Shades of the Rainbow Serpent? A KhoeSan Animal between Myth and Landscape in Southern Africa—Ethnographic Contextualisations of Rock Art Representations

Sian Sullivan ^{1,*} and Chris Low ²

¹ Dept. of Social Science, School of Society, Enterprise and Environment, Bath Spa University, Newton Park, Newton St. Loe, Bath BA2 9BN, UK

² Director, Thinking Threads, 13 Moreton Terrace, London SW1V 2NS, UK;
E-Mail: chris@thinkingthreads.com

* Author to whom correspondence should be addressed; E-Mail: s.sullivan@bathspa.ac.uk;
Tel.: +44-1225-875884.

Received: 30 September 2013; in revised form: 12 February 2014 / Accepted: 10 May 2014 / Published: 2 June 2014

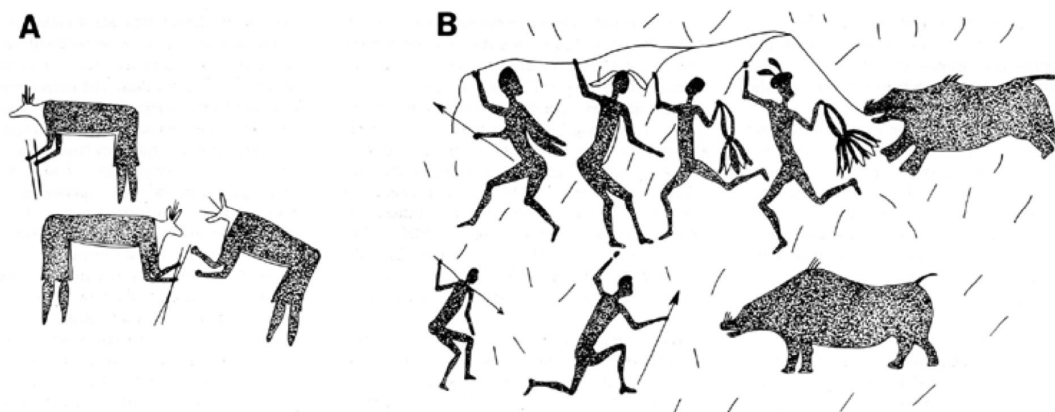
Abstract: The snake is a potent entity in many cultures across the world, and is a noticeable global theme in rock art and inscribed landscapes. We mobilise our long-term ethnographic research with southern African KhoeSan peoples to situate and interpret the presence of snake motifs in the region's rock art. We contextualise the snake as a transformative ontological mediator between everyday and "entranced" KhoeSan worlds (those associated with "altered states of consciousness"), to weave together both mythological and shamanistic interpretations of southern African rock art. Ethnographic explorations of experiences of snakes as both an aspect of natural history and the physical environment, and as embodiments of multiplicitous and mythical meaning by which to live and understand life, shed light on the presence of snakes and associated snake-themes in southern African rock art. By drawing on ethnographic material, and in conjunction with review of literature, we highlight a dynamic assemblage of extant associations between snakes, rain, water, fertility, blood, fat, transformation, dance and healing. We suggest that these extant associations have explanatory potential for understanding the meaning of these themes in the rock art created by the ancestors of contemporary KhoeSan peoples. Our paper contributes to a live debate regarding the interpretive relevance of ethnography for understanding rock art representations from the past.

Keywords: KhoeSan; rock art; snakes; potency; rain; healing; dance; landscape; shamanism; ethnography; southern Africa

1. Introduction: on the Presence of Snakes in Southern African Rock Art¹

In a much cited narrative [1], a British colonial magistrate, Joseph Orpen, travelled in 1873 through the Maluti-Drakensberg of the eastern Cape with a San guide named Qing (probably !Qing or !Ing, *cf.* [2], p. 11), who had “escaped from the extermination of their remnant of a tribe in the Malutis” ([3], p. 2). On encountering panels of paintings on the Sehonghong River (Orpen’s “Mangolong”), Orpen questioned Qing as to their meaning. This represents possibly the only recorded time “a San person has been asked by Europeans to give interpretations of rock art while actually in a painted site”² ([4], p. 1–2). Before publishing his findings, Orpen dispatched Qing’s comments and a copy of the paintings (see Figure 1) to the philologist Wilhelm Bleek in Cape Town, who in turn showed them to the /Xam Bushmen whose language and knowledge he was documenting with his sister-in-law, Lucy Lloyd. Despite considerable geographical distance from the Maluti mountains, Bleek’s /Xam Bushmen informants appeared familiar with the content depicted in the paintings and the descriptions by Qing ([2], [4], p. 6). This was the first indication that there are and have been, considerable similarities in ideas and practices across a spectrum of San peoples in southern Africa despite different historical and geographical contexts, a view since elaborated for KhoeSan more broadly by various researchers ([5–8]).

Figure 1. Orpen’s 1874 copies of the rock art at Melikane (a) and “Mangolong” (b) (Sehonghong River, Lesotho): (a) shows “rhebok men” who could tame “eland and snakes”; and (b) “submerged” men and women capturing a “rain animal” that is also a snake. Adapted from [9], p. 19, after [10], p. 430, and [11], p. 33.



Since then, the stories that Qing related to Orpen have received great attention by rock art scholars and KhoeSan ethnographers alike (for recent treatments see [1,4,9,12,13], and references therein). Challis *et al.* ([4], p.12) claim that Orpen’s text of these stories has “become the single most important source for the decipherment of rock art in the sub-continent”, precisely because the stories expressed

therein, and the images with which they were accompanied, were coherent to contemporary /Xam informants in the Cape (*cf.* [2]). They have thus continued to be interpreted in conjunction with the now renowned Bleek-Lloyd archive of /Xam narratives from the Cape, several hundred miles away.

Orpen's presentation of Qing's narrative is particularly notable for the mention of snakes. Qing asserts that men in the rock panel scene, painted with rhebok (*Pelea capreolus*) antelope heads and tails (Figure 1a), were those who "mostly live under water" and who "tame eland (*Taurotragus oryx*) and snakes" ([3], p. 10, emphasis added). In another scene, a giant quadruped being pulled forward by a group of people via a line suggesting some sort of rope, is identified as a snake (Figure 1b; see [3], pp. 2, 6). Indeed, in Orpen's [3] 10-page narrative derived from Qing's testimony, the term "snake" appears no fewer than 22 times. In this, snakes are associated with blood, with transformations from blood into both snakes and hartebeests (*Alcelaphus buselaphus caama*) (p. 4), and are conveyed in terms of power that can be both positively transformative (p. 10) as well as destructive (p. 5). The mutability of KhoeSan categories and materiality (as emphasised by [14]) is seen in multiple shifts between snakes and men. Thus, in a key narrative concerning a daughter of "Cagn"—the supreme and mutable deity of the KhoeSan (on which more below)—this potent entity is allied with snakes ("*qabu*") who "were also men" (p. 5). Snake meat is eaten and is clearly potently transformative (p. 5).

We identify for our discussion below five key snake-associated themes that appear consecutively³ in Orpen's [3] narrative of Qing's testimony. These are:

1. snakes could "fill the country with water" (p. 5);
2. snakes, health and healing are entwined, such that ill-health is associated with dangerous snake potency, and healing—via the ministrations of a healer who is also snake-like—is akin to the emergence of a new state following shedding of the skin of a snake;
3. snake fat is a potent substance that when applied to a healer (p. 7) can facilitate their transformation into the snake-associated and potent altered state of perception needed for healing to occur;
4. the use of "charms", *i.e.*, potent substances, that include "burnt snake powder" (p. 10) both strengthens trance-states (p. 10) (associated with being snake-like), and supports healers in their return to the everyday consciousness of "normal" human-being (p. 7);
5. "rhebok men", supported by charms and the healing trance dance, are those who could tame and catch eland and snakes (p. 10).

Given the prominence of snakes in this influential commentary one might imagine that snakes would be more frequent in the rock art than they in fact are. Indeed, some analysts have suggested that the low incidence in southern African rupestrian motifs of felines, snakes and birds of prey, *i.e.*, images associated widely with hallucinatory states of consciousness, suggests a less "shamanic" orientation in this art than is proposed elsewhere (see Bednarik in [15]).⁴ Pager ([16], p. 81), however, observes that "rarity does not always signal a lack of importance". Although the numbers of snakes may be low in the art, this does not mean they were unimportant either "shamanistically" (*cf.* [17]) or in the wider contexts of everyday life that underpin such practices and associated "onto-epistemology"⁵ [13]. The cultural ontology and ideational importance of snakes is indicated both in Qing's comments above, and in the ways that snakes appear in the rock art when they are present. They are shown therianthropically, with features such as antelope heads or tusks that embed them as

iconic and potent and thus for some analysts are associated with the altered states of consciousness associated with trance-journeying (*cf.* [4,11]). They are painted so as to appear to run into and out of rock crevices or rain water stains on the rocks, a feature interpreted as metaphorically signalling movements between everyday and spirit worlds (*cf.* [19], cited in [20], p. 7). And they are sometimes represented at an enormous scale, as, for example, at a site named Rain Snake Shelter by Challis *et al.* [4] on the Sehonghong River, Lesotho, in which the dimensions of a giant coiled snake are described as clearly imparting “a non-real quality to the imagery” (p. 4). Indeed, Kinahan ([21], p. 343) notes that a snake depicted at Snake Rock, in the Hungorob ravine of the Brandberg/Dâures, Namibia, is observable from over half a kilometre away. Thus, and as Lenssen-Erz ([22], p. 276) states, whilst rock art researchers have often seen “a correlation between the importance of a symbol and the frequency of its occurrence in the paintings”, *symbolic value* might also be expressed by “the degree of elaboration that a motif experienced” (also [20]). We add the caveat “might” because it is ultimately conjecture that frequency and elaboration of paintings reveals the significance of the subject matter to those who actually produced the images.

Against this brief background of the presence of snakes in southern African rock art, our intention in this paper is to mobilise our own long-term ethnographic research with southern African KhoeSan peoples to further situate and interpret the presence of snake motifs in the region’s rock art. Sullivan worked from 1992–2000 with various Damara and Nama *!haoti* (*i.e.*, land associated lineages, [23,8]) throughout west Namibia, including //Khaoa-a, Dâure-daman, /Gaia, !Oe#gā, Tsoaxau, Namidaman, //Ubun, Purros Damara, !Narenin and ≠Aonin, with later visits occurring in 2007, 2008, 2009 and 2014. Since 1999, Low has conducted fieldwork principally with Nama, Topnaar, Damara, Hai//om, !Xun, Ju’hoansi, Naro and ≠Khomani. We draw on this ethnographic work, as well as review of cognate literature, to emphasise a dynamic assemblage of *extant* cognitive associations between snakes, rain, environmental/landscape dynamics, water, fertility, blood, fat, transformation, dance and healing. This chain is part of what D. Morris ([24], p. 183) calls “emic symbolic associations and equivalences”, Lewis-Williams ([11], p. 52) terms “sets of ideas” of things-that-go-together, and Lenssen-Erz ([25], p. 92), following functional linguistics, frames as the “cohesion” of entities that belong fluently together within a semantic context or context of meaning. Understanding such chains in terms of things-that-go-together-work-together is crucial to understanding KhoeSan ontology and epistemology. With others (notably [7,26]) we suggest that this “things-that-go-together-work-together” onto-epistemology has contemporary explanatory potential for understanding the meaning of these themes in the rock art created by the ancestors of contemporary KhoeSan peoples.

We proceed by outlining some features of debate regarding the interpretive relevance of ethnography for understanding rock art representations from the past, so as to lay the ground for justifying our own affirmation of the importance of contemporary ethnographic information for shedding light on rock art from the past. We then present an array of our own and others’ ethnographic data in connection with the statements regarding snakes in the Qing transcript referred to above, which was itself prompted by consideration of rock art images. We conclude by connecting the symbolic significance of the snake as a transformative mediator between mythically informed everyday and shamanic KhoeSan worlds—as a KhoeSan animal between myth and landscape—with a broader cross-cultural prevalence of snake motifs. Through this we comment on the potency of indigenous snake symbolism for producing multiplicitous and mythical meaning that is simultaneously widely cross-

cultural and expressed in locally particular ways. We also provide some observations regarding KhoeSan ecocultural ethics [cf. 27] and aesthetics, which we understand as existing in adaptively poetic relationship with the dynamic socioecological contexts in which KhoeSan peoples dwell.

2. The Present and the Past: on Ethnographic Analogy and Archaeological Interpretation in Southern African Rock Art

Southern African rock art represents one of the most extensive examples of rock paintings and engravings in the world. Janette Deacon [28] estimates there to be well over 50,000 rock art sites and two million individual images in the region. The paintings and engravings are thought to stretch from the early twentieth century as far back as 27,500 years [28]. Notwithstanding the methodological problems of linking different sites and motifs with distinct historical ethnic groupings (which are themselves often the outcome of colonial and more recent administrative constructions, (cf. [23,29,30]), the vast majority of rock art in southern Africa today is attributed to peoples ancestral to current San-speaking peoples. The San (pronounced Saan) are also known as the “Bushmen”, due to a variously nomadic mode of subsistence relying predominantly on highly socialised and symbolically-textured practices of vertebrate hunting and the gathering of plant, invertebrate and fish foods. They are a spectrum of peoples distinguished by a social milieu that is generally understood to produce radical egalitarianism [cf. 31]. Together with contemporary Khoe-speaking peoples of southern Africa (including Nama, Damara, Griqua, Hai//om and Naro), they speak related languages characterised by distinctive click consonants.

From the triangulation described above between the rock art observed by Orpen in the 1870s, his San guide Qing, and contemporary commentaries provided by /Xam “Bushmen” via the interpretive expertise of Bleek and Lloyd, southern African rock art has been notable for the ways in which its analysis and interpretation have been intimately and convincingly linked with a rich colonial and recent ethnography (see, for example, [32,33,11,21,12,20,13,4]). The considerable academic, popular and national interest that currently surrounds southern African rock art has its roots in the 1970s. At this time a small number of scholars, notably including Patricia Vinnicombe and David Lewis-Williams, turned to ethnography of “Bushmen” as a means of interpreting the art. They worked with both the folklore and linguistic material recorded predominantly amongst Cape /Xam Bushmen in the later nineteenth century by Bleek and Lloyd, and the intense post-1950s anthropology of the San, particularly amongst the northern Kalahari Ju/'hoansi who straddle the border between Namibia and Botswana ([31] see, for example, [17]). By triangulating these sources of material—the rock art itself, the Qing-Orpen testimony of 1874, the Bleek-Lloyd-/Xam archive, and ethnographic documentation flowing from contemporary anthropological research—these scholars established a comparative methodology of profound significance to southern African rock art and beyond.

This tendency towards interpreting ancient rock art through recourse to contemporary cultural practice has an old, if somewhat shaky lineage, going back to some of the earliest published studies of painted caves (cf. [34], discussed in [35]). “Ethno-archaeologist” Paul Taçon ([36], p. 15 in [37], p. 22) summarises discussion regarding this methodology for the Australian context, by re-emphasising the relevance of *analogy* between ethnographic data and prehistorical inscriptions. Thus, “analogy adds an ethnographic perspective to prehistoric data and provides models that may be appropriate for the

understanding of archaeological data”. At the same time, archaeological material can also be invoked so as to illustrate continuity of extant praxes with past record. Echo-Hawk ([38], pp. 73–75) thus relates for north American contexts that “at least some archaeological evidence has been interpreted to suggest great time-depth for cultural continuity” and that “the comparison of oral traditions and archaeological information might yield unexpected congruities” if pursued with “a commitment to dialogue based on mutual respect”, in this case between academic archaeologists and local, indigenous people.

Whilst there is a long, critical history in archaeology of the use of ethnographic analogy in archaeological interpretation (see, for example, [37]), the southern African context offers a detail and depth of extant ethnographic possibility that, although not without its critics (*cf.* [25] [39], p. 3), is unmatched in many other contexts. At the same time, the neat tale related above of the connections between historical and extant populations of San with the rock art attributed to them is a rather simplified version of the complex southern African and cultural context from which it derives. In particular, it downplays the reality of San connections with historical and contemporary Khoekhoe peoples who are normally (although by no means exclusively, *cf.* [40,41]) associated with livestock herding, but who also speak a spectrum of related click languages and dialects. From approximately 2000 years ago herders and agriculturalists moved into the region from the north bringing their own cultural styles and content [28,42,43], and through trade, exchange and local innovation some of the material cultures and practices associated with these migrations became taken up in the drier central and western regions of southern Africa (*cf.* [44]). Quite how the culture of these herders and farmers entangled with, and/or emerged from that of the San is much debated. Some argue for the longstanding relative isolation of certain San peoples and a strong continuity between current practices and distant ancestral circumstances (see, for example, [45]). Others interpret current “hunting and gathering” subsistence practices as evidence of impoverishment from holding livestock herds in relatively recent times ([46], p. 42 [47,48]), or emphasise flows of cultural values and practices between San and Bantu speaking agropastoralists [49,50]. Both of these phenomena have increased due to intensified disruption in the wake of European contact from the 1650s (*cf.* [7], p. 22). Alan Barnard [6], following earlier observations by Isaac Schapera [5], interprets contemporary pastoral Khoekhoe peoples as originating from San peoples who acquired livestock and took on other associated cultural characteristics. In doing so he affirms a KhoeSan “cultural system” that permeates throughout southern Africa and shares a common vocabulary of ontological and epistemological assumptions, with place-based and regional particularities in expression (see discussion in [7], pp. 21-22). This is a position with which we concur. It reflects our own ethnographic observations of broadly shared onto-epistemological assumptions between a range of Khoe- and San-speaking peoples, particularly in the realms of healing (13,51,52)) and of non-deterministic flexibility in environmental knowledges and culturenature praxes [40,53].

As such, whilst it is the San who tend to be looked towards in terms of applying ethnographic data so as to derive meaning in southern African rock art, we maintain that it is possible to flesh out these understandings through embracing a wider interlinked Khoekhoe and San, or KhoeSan, cultural context (*cf.* [7]). Particularly strong continuities are recognised between Khoekhoe and San peoples in arenas of folklore ([31,53,54]), healing [51], and environmental knowledge and use practices [40,8], and all of these domains are relevant to interpretations of southern African rock art, as well as for other

archaeological investigation (*cf.* [56]). As Hoff [7] argues, themes and motifs embodied by the rock art connect with the ontologies and epistemologies of a much broader spectrum of KhoeSan peoples than of San-speakers alone. Indeed, a number of assertions are made in interpretations of southern African “San” rock art that can be seen to be problematic when ethnography concerning a broader spectrum of KhoeSan peoples is looked towards. For example, Lenssen-Erz ([22], p. 285) refers to /Kaggen as “the trickster of the southern San” whereas, and as discussed further below, our own fieldwork demonstrates this deity figure to feature significantly in the onto-epistemology of various Damara *!haoti* (Sullivan, personal fieldnotes). Ethnographic research conducted in recent times with this diversity of Khoe- and San-speaking peoples thus may continue to inform understanding of rock art themes, compositions and socionature⁶ understandings, and thereby redress observations “of a rather sparse historical ethnography” that omits comment on entities in the rock art such as “eared snakes” ([25], p. 93). It is to this proposition that we speak in this paper.

3. Triangulating a KhoeSan “rainbow snake assemblage” from rock art and ethnography

Given the above, in this section we work with a range of observations from rock art images and analyses, historical and contemporary ethnographic literature, and our own ethnographic fieldwork, to provide a further articulation of the assemblage of associations linked with a KhoeSan ontology of snakes that draws on both natural history and supernatural elements. In using the term “assemblage” we invoke a post-structuralist notion of the multiplicity of dynamically stable connections between bodies, scales, discourses, beliefs, practices and affects, that, in combination, are able to generate observable and patterned effects in the world (*cf.* [61,62]). We thus highlight the role of snakes in KhoeSan life as a key element in the emic associative assemblage that connects an iterative triad of experience formed of: (1) natural history observations of species and environmental phenomena (*cf.* [20,24]); (2) mythological/cosmological understanding and framing (*cf.* [12]); and (3) directed “shamanic” practice for the mediation of socioecological dynamics (*cf.* [17,31,51]). We maintain that this assemblage is recognisable amongst a broader array of extant KhoeSan peoples than has hitherto been acknowledged, and that it has relevance for understanding the conduct of conduct (*cf.* [63]), *i.e.*, the governance of appropriate ecocultural behaviours, that has shaped the KhoeSan cultural spectrum, notwithstanding the particularities of expression arising in association with place, lineage, language and temporal differences. Thus, as Bleek ([2], p. 11) reminds us, “although the general character of the myths recorded by Mr. Orpen (from Qing of the Maluti “Bushmen”, Drakensburg, Lesotho) is mainly the same as that of those collected by us (from /Xam informants, Cape region, South Africa), yet there is not one of his myths which is exactly identical with any one of ours”. Like many of the analyses already referred to, we take as our starting point a close reading of Orpen’s transcript of the Maluti San narrative by Qing, structuring our analysis around the five consecutive and interlinked aspects in this text identified in Section 1 above.

3.1. Snakes could “fill the country with water”

This statement is linked in Qing’s narrative with an interaction between female and male snakes, in which the female is proactive and throws the male into water such that the water then rises to reach above the mountains—thus “the female snakes took their husbands on their (the husbands”) return and

threw them into the water, and it rose up above the mountains' ([3], p. 5, emphasis added). There is an invocation here of large-size, immense water-associated potency in connection with landscape features and environmental dynamics, and interactions between differently gendered powers. Many of these features are present in an extraordinary paper by Ansie Hoff ([7], also see [26]). Hoff's paper in particular provides ethnographic detail regarding "the Water Snake of the Khoekhoen and /Xam", from a series of interviews with KhoeSan informants from the 1970s and 1990s, as well as rooting these details in historical observations recorded in Alexander ([64] vol. 1, p. 115), Andersson ([65], p. 329) and Von Wielligh [66], pp. 77-83, 139-142), and in the Orpen/Qing testimony and Bleek-Lloyd-/Xam archive.

In speaking of a series of "Great Snakes" that inhabit rivers and fountains, one of Hoff's informants thus "saw the Fountain Snake travelling with its head in the cloud and its tail in a fountain", a striking similarity with the description from Qing above, whilst another speaks of the River Snake being so long that "it leaves a path in water when swimming through it" ([7], p. 24). In recent years, the Khoe-speaking Hai//om rain shaman, Kadisen //Khumub, tells of encountering a 500 foot long snake as he was grading roads in Etosha National Park. The snake covered the entire road and flowed for several minutes (Andrew Botelle, personal communication). Echoing the description above of the River Snake, D. Morris [24] proposes that belief in such a snake was a fundamental factor in the history of Dreikopseiland, an archaeological site near Kimberley in the Northern Cape Province. Morris outlines that the site includes something in the region of 3,500 engravings and is set within a blue-grey glaciated andesite river bed exposed over the last two and a half millennia ([24], p. 154). Amongst a variety of geometric engravings the site includes flowing pecked lines that appear around the borders of the water (see Figure 2). These lines are highly reminiscent of snakes. More dramatically still, Morris suggests that when the river was at its lowest, and environmental-existential stress at its highest, intermittent smooth expanses of rock became exposed. To KhoeSan peoples familiar with notions that giant watersnakes inhabited the water courses of southern Africa, Morris proposes that when the water receded and the rock was exposed this may well have appeared as massive corporeal undulations of the water serpent, thus vividly reinforcing belief in this potent animal between myth and landscape.

Figure 2. Engravings reminiscent of snakes on an andesite river bed at Dreikopseiland, Northern Cape Province. Photo: Chris Low, personal archive.



“Great Snakes” or *Kai/ao.b*⁷ ([26], p. 269 [13], Sullivan personal fieldnotes) are known to live in permanent water sources including rivers and springs, and proof of their existence is linked with certain phenomena such as bubbling turbulence in waterholes. This is iterated in a recently filmed sequence of Khoe-speaking Hai//om in Namibia that conveys their simultaneous attraction to and fear of the bubbling, snake-associated water in !Gobaub waterhole close to a former dwelling place in what is now Etosha National Park in north-central Namibia [68]. Hoff ([7], p. 24) reports further that the Great Water Snake’s presence is indicated by “an agreeable smell at a fountain or a rainbow in the water”. The reference to “an agreeable smell” may come from both the snake itself (*cf.* [13]) as well as in association with plants including “water-buchu” growing “at the Water Snake’s dwelling place” (Hoff [7], p. 24). This immediately also connects the Great Water Snake with a substance known and used for its potency throughout the spectrum of KhoeSan peoples to the present date—namely the mixture of aromatic plants known as “buchu”⁸ or “*sâ.i*” that as a finely ground powder is applied to both raise and calm energy as appropriate in specific situations (see 3.4 below) ([30,69]). The reference here to “water-buchu” is likely to indicate the aromatic forms of Cyperaceae species commonly known to Damara/≠Nū Khoen informants in recent years as “*sâ.i*” or “perfume” plants, with the specific name *!hare.s* or *!arebe.s* ([30], p. 158). This set of associations thus weaves together immense snake potency, with water, the rainbow,⁹ smell, and perfume plants.

According to Hoff ([7], p. 22, also Schmidt ([54], p. 211 [13]), these Great Snakes are described as ranging from multicoloured (rainbow-like?) to black, are both “very pretty” and extremely fearsome, and can be both female and male. Most importantly, “the Great Snakes are supernatural beings which really exist in nature” (Hoff [7], p. 22). They are distinguished from a range of observations associated with the presence of “normal” Water Snakes which nonetheless also have symbolic significances. At the same time, an array of overlaps between Great and “ordinary” Water Snakes, combined with a KhoeSan tendency towards celebrating the mutability between different states of being (discussed further below), suggests to us that these different categories of snakes can also be seen in relationship with each other so as to tell us more about KhoeSan orientations towards life, landscape and appropriate action. Hoff relates that the (everyday) Water Snake is well-known among the Khoekhoen and has a strong association with water. Described as “small and brown, about the size of an ordinary snake”, it also “lives in a water source such as a fountain, *gora* (a water-hole in which seepage water collects) or borehole”. This is “a ‘good’ snake which does people no harm”. Indeed, “the availability of water in a water source is directly connected to the presence of this snake: if it is killed or moves away the water dries up”, and “the old people used to say ‘It is because of this snake that we have water to drink’” ([7], p. 23). This snake is considered to guard waterholes and keep the water clean, such that if it is killed or removed the water will dry up. Hoff ([7], p. 23) recounts a story in Alexander ([54] vol. 2, p. 227-228) from the Nama of Namibia in which a fountain dries up following the slaughter of its guardian snake (in this case by a “Boschman”), leaving “a water snake, about six feet long, brown above and yellow below, (lying)... dead beside it”. This description fits with that of the rock python (*Python sebae natalensis*), that frequently is found near waterholes and can attain lengths of several metres. In recent years, similar tales were told to one of us (Sullivan) of pythons (*//gam/ao*—literally “water snake”) associated with waterholes in southern Kunene Region (Namibia) and sometimes seen to lie on the grass beside it. Killing this snake is thought to cause the water in a spring to dry up, but the snake that actually cleans the water is a Great Snake, in this case, called *gai//gams*

(literally “big water”). The places of such snake-associated springs, for example at Sesfontein/!Nani/aus, are considered to be clean or special (denoted as *!anu*, and with meanings varying from “clean” or “pure” to “sacred”), and inappropriate behaviours at such places are seen as generating disturbances in socio-ecological registers ([70], p. 77, confirmed in 2009).

Here, then, we have a series of water-associated snakes ranging from huge, immensely potent supernatural snakes and large-scale environmental phenomena, to the more prosaic ordinary snake that might be a “python” that lives near waterholes in everyday reality. Whilst clearly distinct, it is tempting to see overlaps here between natural history and supernaturally charged realms that reinforce understandings of each and thus guide the range of possibilities for socialised mediations. Our proposition is that whilst understanding these snake categories as distinct, they might also be thought of as associational domains that connect with each other, their different characteristics and intensities being invoked in relation to specific contexts and situations so as to explain phenomena and guide appropriate action. After all, the pythons known to natural history display many of the characteristics associated with the potency that charge the Great Snakes known to KhoeSan. These characteristics include large-size, predisposition towards water where plants with aromatic potencies grow, and behaviours that are both beneficial and dangerous to humans. It thus seems reasonable that such shared characteristics between myth and natural history would not be lost on KhoeSan as they experience, construct and mediate daily life in relation to these snakes.

Mallen ([20], pp. 3-5) observes similarly that a proportionately immense painted “Great Snake” at a rock art site known as Lab X in Eastern Cape Province (South Africa), has acutely detailed characteristics that signal it is based on a female puffadder (*Bitis arietans arietans*). Whilst the combination here of natural history characteristics and embellished features designates a creature of “supernatural” potency, the appearance and behaviours of such creatures “are clearly modelled on” empirical observations of associated species as they appear in ordinary, everyday states of consciousness ([20], p. 4). Mallen notes further that characteristics of real puffadders, including their rainbow-like multicoloured skin (/Xam associated puffadders with rainbows and the sky, Mallen ([20], p. 6) and references therein), their tendency to be very noticeable just in advance of rainfall, and their ability to swim, would have cemented their invocation in rock art that might represent rain-making activities. The amplification of these very features in rock art depictions would in itself have been a means of calling forth that with which they are associated—namely rain. Indeed, the puffadder is identified by the /Xam as one of a suite of potent “Rain’s things” in the Bleek-Lloyd archive (Bleek [71], p. 303, in [12], p.4; see also [5,72]).

The above delineates a range of snake associations between categories of snakes, dynamic environmental phenomena, and appropriate responses and mediations. We move now to emphasise the latter in relation to the interconnected realms of ill-health and healing, both of which are again associated with multiplicitous evocations of snakes.

3.2. *Ill-Health Is Caused by Dangerous Snake Potency; Healing is a Transformative Emergence Signalled by the Shedding of a Snake Skin. Snake Potency thus can be both “Good” and “Bad”*

In this theme, human ill-health is clearly identified with dangerous snake potency, such that transformations towards health via the ministrations of a healer (also associated with snake potency) are linked with the shedding of the skin of a snake, as seen in everyday observations of snakes. Thus,

... the chief and his young men were saved (from the wall of water described in 3.1 above)... and Cagn sent Cogaz (his son) for them to come and turn from being snakes, and he told them to lie down, and he struck them with his stick, and as he struck each the body of a person came out, and the skin of a snake was left on the ground, and he sprinkled the skins with canna,¹⁰ and the snakes turned from being snakes, and they became his people ([3]p. 5).

Historical sources similarly described the origins of sickness as being from arrows shot by Turos the python ([65], p. 255), whilst in other Khoe-speaking contexts the divinity, //Gauwa or //Gamab is cited as the source of sickness as well as of healing [6,51].

When an actual snake sheds its skin this is literally because its bodily form has outgrown the outer layer which does not grow. The body relinquishes its old skin, which “is shed in one piece and comes off inside out like a sock” ([74], p. 3 in [20], p. 7). This is a very clearly observed process of transformation that provides an easy metaphorical association with healing effected through the shedding of what is not needed and may be causing harm, itself associated in this context with imbalanced and/or negative snake potency. Arguably, transformation and shifting between states of being is a core motif in KhoeSan orientations towards understanding being in the world. It is linked with an array of critical transitions, such as a girl’s transition to womanhood with the onset of menarche, and references to such transitions are embedded in observations of similar transformations of the other organisms inhabiting the landscapes where people dwell. Thus, snakes, the moon and snails are all “children of the moon”, because “the moon dies and gets old and goes away. The snail also gets out of its shell and gets a new shell. Like a snake does” (Khoe-speaking Naro, in [6], p. 254 *cf.* [13]).

In associating snake potency with both ill-health and healing, the selection above from the Qing-Orpen testimony emphasises ambivalence and transformation as a critical aspect of KhoeSan onto-epistemology. As such, a powerful “thing” or force, in this case the “snake potency” associated with natural history, supernatural and mythical snakes, is understood as neither “good” nor “bad” in itself. Rather, its manifestation as positive or negative is situated indelibly within contexts that are themselves dynamic. So, for the Hai//om healer //Khumob, the supernatural figure of //Gamab (whose name apparently derives from the Khoe root for water, *i.e.*, //gam), is conceived as ambiguously good and bad. This ambiguous potency is signalled by his association with a leopard on one side and a large three-eyed snake on the other ([75]), or, as a Khwe man observed to one of us, by a python worn as his belt [13]. KhoeSan healers in northern Namibia are said to “have the rain wind” or rain potency, and the strongest acquire it by being struck by lightning, which is also a simultaneously fearfully dangerous and generative force (*cf.* [76]), that again is associated with snakes.¹¹ Understanding that an entity, state or force may be ambiguously and even periodically both “good” and “bad”, or “positive”

or “negative”, as described for snake potency in the Qing-Orpen theme discussed here, thus seems to be an essential dimension of KhoeSan understanding.

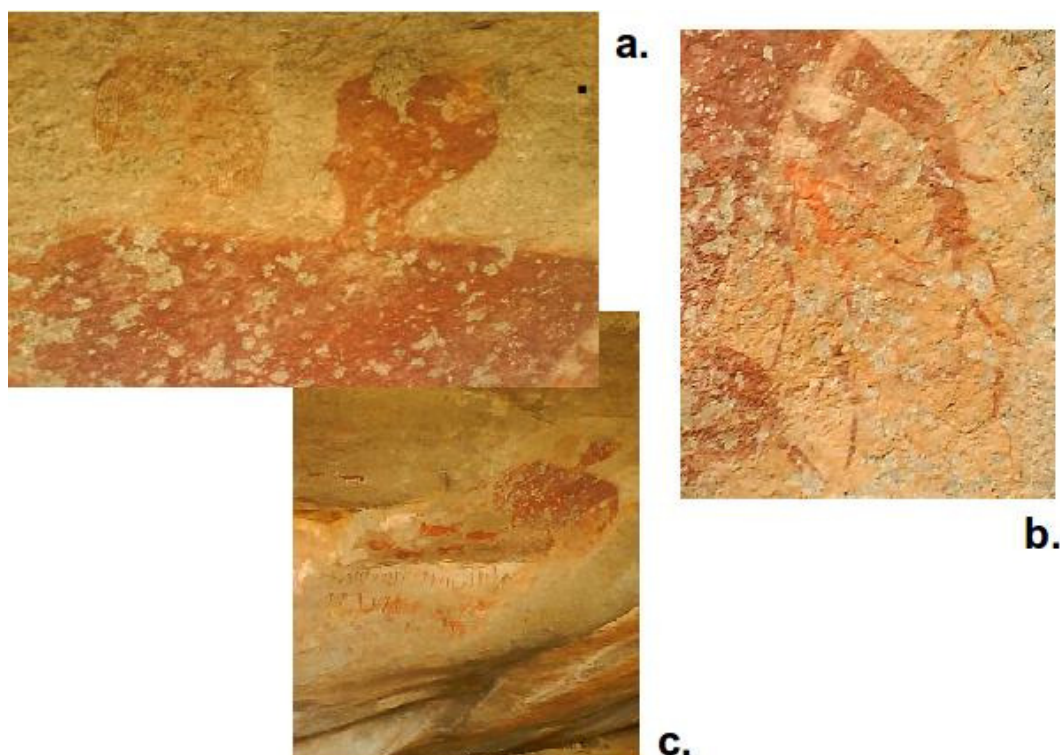
Arguably, however, this aspect of KhoeSan thought has been misunderstood, in particular due to a relatively recent Judeo-Christian and missionary emphasis on categorising things as either of “God” and “Heaven”, or of “Satan”, “Hell” and “the Devil”. Solomon [12], drawing on ethnographic work by Marshall ([77], p. 240-241) with Kalahari !Kung San thus notes an association between a deity figure //Gauwa and malevolence, death, illness and the “spirits of the dead” (the ancestors?). She associates this source of malevolence with the mantis-linked figures of G//amama amongst the G/wi San ([78], p. 54-55), !Kaonxa of //Gana San, Central Kalahari (who also becomes a big snake and is associated with water ([79], p. 187-201)); as well as with /Gauwa, who amongst Christianised Naro Khoe-speakers is equated with Satan, and is notable for his attraction to women secluded in menarcheal initiation rites ([55], p. 117). Elsewhere Solomon [12] reports that the /Xam San rain-being !Khwa—the embodiment of rain and of water in waterholes, who appears in herbivorous form as eland, rain bull, and rain animal (who are also associated with, as well as described as, snakes)—is linked with violent rain storms and attracted to females secluded in menarcheal initiation rites, and thus is seen as similar to //Gaua (in [5], p. 194).

It is clear from this assemblage of KhoeSan terms and associations that what is being referred to is immensely potent and sometimes dangerously so, and also that there is an association here between “//Gauwa” and snakes who are known to “work together” because “they think the same way” [13]. It is notable, however, that there is nothing in the latter references above to !Khwa or //Gaua that indicates malevolence specifically. It seems possible, then, that association with this mutable assemblage of rain (sometimes in violent storms), water in water-holes, rain-animals, eland, snakes, female potency and menarche, whilst seen as posing potency that may be dangerous or even fearful, should not in itself be interpreted as categorically “evil”. Power ([14], pp. 40-46 and references therein), in considering the /Xam mythical dyad !Khwa and /Kaggen, and the Khoekhoe dyads Tsüi-//goab and //Gauab (//Gaunab), and Haisi-Eibeb (Haisi, Heibeb) and ≠Gama-≠gorib (Gâ-gorib), thus argues that these aspects are interchangeable since they are symbolically associated with the periodic and recurrent phases of dark and full of the lunar cycle. Indeed, our own enquiry into the figure of //Gâua.b via “ethnoentomology” study of the praying mantis suggests a noticeable degree of awe and respect regarding this figure and the unpredictable dynamics of life and landscape that his (and sometimes her) actions give rise, but not a fixed association with malevolence or “evil” (Sullivan personal fieldnotes). Given the influence of Christianity in the southern African region and the dominance of the “Satan” figure in this religion, it seems likely that the potent but generative assemblage denoted by the apparently corresponding figures of //Gauwa, G//amama, !Kaonxa, /Gauwa, /Gaua, !Khwa and //Gaua has become inappropriately fixed with negative “Satanic” characteristics. Indeed, it might perhaps also be noted that such a gloss would be a significant method of delegitimising a key ontological realm for KhoeSan throughout southern Africa, namely that of snake-associated transformative potency and the generative force of categorical ambivalence.

As Power ([14], also [80]) draws us towards, we might instead see KhoeSan understanding and representation of dualisms as akin to the different peaks of the lunar cycle. Like the polarities of *yin* and *yang* in Chinese Taoist thought, neither of these is normatively “good” or “bad”. Indeed, as with the movements between everyday waking reality and experiences of primal, ancestral time in states of

trance (on which more below), each of these states requires the other, in a generative interplay of forces. It is tempting to see such an onto-epistemology in the unusual rock art depiction of a massive and seemingly bi-headed human figure from the Brandberg/Dâures massif in Namibia (Figure 3). The potency of this figure is indicated by its large size and possibly by the human forms that in the juxtaposition of painted images appear to be falling from the figure's armpits (associated with the potent sweat of a healer in an entranced state [51]). Whilst, ultimately, it is impossible to state categorically whether this juxtaposition of giant and falling human forms was intentional the coincidence remains striking. Regardless, the massive bi-headed form alone evokes the primal and quotidian worlds as they may seem to each other (the fine white lines of the left-head give this a more ethereal and imaginal quality than that of the solid red paint characterising its mirroring right head and body of the figure). Given the mutability and transformations between states that have already been noted, it seems fair to say that this two-headed human-like figure may also be a two-headed snake. But of course all of this can only be an interpretive and non-testable projection, based on analogy, elision and intuitive transpositions of ethnographic circumstances.

Figure 3. (a) Double-headed human-like figure from the upper Amis gorge, Brandberg/Dâures, Namibia; (b) Close up of human figures “pouring” from the left armpit of the figure; (c) The figure in context of part of the broader panel, so as to give some idea of scale. Photos: Sian Sullivan, 2007, personal archive.



What we are seeking to articulate is a KhoeSan understanding of “ordinary” and “supernatural”/mythical/entranced realms as in relationship with each other: as dynamically entwined and infused with potency, and that can be engaged with and attuned in alignment with ecocultural values that guide choices. Arguably, it is the KhoeSan person’s “job” to manage unpredictably varying surges of potency as skillfully as possible. One way of doing this, as noted above, is by drawing on

and applying substances which are themselves considered potent, in part due to their links with the assemblage of forms and states of being associated with snakes. One of these potent substances is snake fat, and it is to this that we now turn.

3.3. Snake Fat is a Potent Substance that can Facilitate Transformation of a Healer into the Snake-Associated Potency through Which Healing can Occur

This theme identifies snake fat as a substance that can transform a person into a non-ordinary, potent state, that is itself associated with becoming snake-like ([3], p. 7). Thus,

those men took fat from a snake they had killed and dropped it on the meat (a rhebok), hunted by Qwanciqutshaa, another son of Cagn, who was hated by these young men (because they desired his wife), and when he (Qwanciqutshaa) cut a piece and put it in his mouth it fell out; and he cut another, and it fell out; and the third time it fell out, and the blood gushed out of his nose (signalling entrance into an altered state of consciousness). So he took all his things, his weapons, and clothes, and threw them into the sky, and he threw himself down into the river... (where) he turned into a snake (p. 7).

In this description, bleeding from the nose and submergence in water are both key motifs that ethnography suggests signal entrance into an entranced and thus potent state of consciousness [*cf.* 31]. The specific use of snake fat in strengthening this state can be understood in a range of ways. One is the conferment of “immunity”¹² considered to occur through smearing the body with snake fat, particularly python fat, but also mamba fat or the fat of the large monitor lizard or leguan (also part of the suite of “Rain’s Things” identified in the Bleek-Lloyd-/Xam archive, and described as the “servant” and “house-keeper” of the Great Water Snake in Hoff [7] and Schmidt [26]). What is potent here is both “fat” and the nature or essence of the animals from which this is taken. Fat is in itself an important substance in terms of its inherent “potency”, which lies in both its tasty and nutritional value (especially in eland fat, which is associated with femaleness) and in its smell, which in itself confers potency and immunity (for more on fat, smell and wind in KhoeSan onto-epistemology and healing, see [51,52]). Thus, in KhoeSan thought the smell of a person or animal equates to their intrinsic wind or breath of life, and thereby carries, in the wind, the essence of an organism [52]. Snake fat is smelly and carries the wind or essence of the snake. The idea of fat being able to move through the wind reveals a KhoeSan understanding of wind and smell as the vehicle and agents of transformation. Rubbing fat on, like taking in snake venom (*cf.* [13]), bestows in someone kinship qualities with a snake that are also transmitted via and through the wind that they thereby take on. Becoming a part of the snake family by having snake wind (via snake fat and thus smell) means snakes will not hurt a person. This equates to having sympathy with, and a measure of control over, both snakes and snake potencies, as suggested by Qing’s reference to “taming” snakes (see below).¹³ Indeed, as well as the enhanced potency proffered through consumption of snake fat, Qing relates that snake fat transforms a man into a snake. This might be understood in a number of not necessarily mutually exclusive ways. It invokes the shift of a healer into the state of potency associated with the ability to effect the transformations required for healing; it associates this state of potency with the non-ordinary ancestral and mythical realm which might be seen as the realm from which the mysteries of both illness and healing emanate; and, as such,

it perhaps also connects with a KhoeSan primal time when people and animals were the same (*cf.* [12]; also [83]) and the possibility of one transforming into or lodging in the other thus remains.

Snake fat clearly is one of a series of potent substances deployed to strengthen a person's capacity through a range of transformational possibilities. In the next section we draw on contemporary ethnographic observations to contextualise a further reference in the Qing-Orpen testimony to the use of potent substances, namely "burnt snake powder".

3.4. *The Use of "Charms", i.e., Potent Substances, Including "Burnt Snake Powder" ([3], p. 10) both Strengthens Trance-States ([3], p. 10) (Associated with being Snake-Like) and Supports Healers in Their Return to the Everyday Consciousness of "Normal" Human-Being ([3], p. 7)*

In this motif, "charms", *i.e.*, potent substances, including that which contains "burnt snake powder" ([3], p. 10)—probably consisting of snake poison, snake body parts and pungent smelling *buchu/sâ.i* plants—can be used both to strengthen trance-states ([3], p. 10), and to resuscitate healers by supporting their return from the "spoilt" snake-like state of trance to the everyday waking consciousness of "normal" human-being ([3], p. 7). Thus, Qwanciqutshaa's (the son of Cagn mentioned above) "wife",

made a hut and went and picked things and made cannā, and put pieces in a row from the river bank to the hut. And the snake (*i.e.*, Qwanciqutshaa in his transformed trance state) came out and ate up the charms, and went back into the water, and the next day she did the same; ... And when the girl saw he had been there she placed charms again, and lay in wait; and the snake came out of the water and raised his head, and looked warily and suspiciously round, and then he glided out of the snake's skin and walked, picking up the charm food... ([3], p. 7).

In this case, the process of return to the human form of Qwanciqutshaa is further accompanied by the burning of the "snake's skin" after sprinkling it with a potent plant substance ([3], p. 7). In another passage, the Qing-Orpen text relates that:

Some fall down; some become as if mad and sick; blood runs from the noses of others whose charms are weak, *and they eat charm medicine, in which there is burnt snake powder*. When a man is sick, this dance is danced round him, and the dancers put both hands under their arm-pits, and press their hands on him, and when he coughs the initiated put on their hands and received what has injured him ([3], p. 10, emphasis added).

As in 3.3 above, these descriptions refer to the use of powerful, ritual substances or "charms", including "burnt snake powder", to assist both entrance into trance, and reemergence into an everyday state of consciousness. The second quotation also explicitly connects Qing's narrative, the rock art images that in part prompted it, and various invocations of snakes, with what has become known as the "healing trance dance" in much KhoeSan ethnography and ethno-psychology (*cf.* [13,31,51,84,85,86]). A shamanistic interpretation (as principally proposed by Lewis-Williams and colleagues) understands the healing trance dance as a suite of practices, including dance, rhythmic clapping, song and visionary intent, that induce the "spoiling" or transformation of a healer through their entrance into a snake-associated trance state. Qing in fact elaborated that what is invoked by the Maluti rock art images is a

nightlong circular dance of men and women, the dance itself being given by the ambiguous mantis- and snake-associated mythical figure of “Cagn” (see above). When dancers collapse into trance they are thought of as “dying”—a designation that appropriately describes the temporary loss of individual ego-consciousness required by this shift in psychosomatic state and experience [84,85]. “Charms” that were also given by Cagn, were, and continue to be, used to help with guiding such trancers “back to life”, *i.e.*, back to everyday consciousness (see [87], also Andrew Botelle, personal communication).

Being “spoilt” was the description encountered by Biesele in the context of Ju/’hoansi trance dances (cited by Lewis-Williams [88], p. 32), and is now considered a key descriptor in San rock art studies. Interpretations of what this alludes to vary.¹⁴ Lewis-Williams (e.g. [88]) takes this to describe the experience of things becoming strange, unstable and mutable that accompanies entrance into “shamanic” hallucinatory states of consciousness, and this seems to connect with the Qing-Orpen description above that “some become as if mad and sick”. Solomon ([12], p. 4) instead argues that “spoiling ‘refers ... to the separation of humans and animals, and to the San mythological time’”, *i.e.*, that it is a narrative descriptor of a KhoeSan ancestral/mythical “primal time” populated by “predecessors of modern San” and by animals who “were also humans” that needs no recourse to the trancing associated with “shamanism”. We favour an interpretation that entangles both of these positions. As we have both observed and experienced, KhoeSan clearly do enter states of trance when taking part in healing dances. The effort required to do so is directed towards sourcing relevant information for “healing” at different interconnected levels (individual, social, ecological). And this information is influenced and generated in part from culturally-affirmed ancestral/primal/mythical realms experienced in these “journeys”.

To reconnect explicitly with snakes, the shift in consciousness experienced by those entering snake-associated trance states, often in healing dances, is also linked with snake-associated water, since the shaman’s entrance to a visionary state has been described as akin to being submerged under water [28], [81], p. 54). Whilst the description above seems to refer to the healing of an individual, contemporary ethnography reveals the healing trance dance and the enhanced snake-associated potent state of individual healers to also be associated with rainmaking activities in service to community sustenance. It is to this that we now turn in the final theme of our ethnographic discussion of snake themes in the Qing-Orpen testimony regarding rock art.

3.5. Rhebok Men, i.e., Men with the Heads of Rhebok (cf. Figure 1a), Lived Mostly under Water (i.e., Indicating Their Submerged Trance State) and, with the Assistance of “Charms” (see 3.4. above) and Riems (Pliable Ropes of Leather) could Tame and Catch Eland and Snakes ([3], p. 10)

As noted above, Qing associated the painted scenes at the Melikane and Sehonghong shelters with the “spoiling” of “rhebok men” in dances (Figure 1a) which have subsequently become known as trance or healing dances, in which individuals in a submerged trance state (they “live mostly under water”) could “tame snakes” as well as eland by holding charms/potent substances out to it and “catching it with a long rein” (p. 10) (Figure 1b) (*cf.* [31,72]). Bleek and Lloyd’s informant Diä!kwain who was shown the images, described the animal form depicted in Figure 1b as “a water thing or water cow” that was being led “over as large a tract of country as they can” so that rain may fall “wherever this animal goes” ([2], p. 13). Thus:

the paintings from the cave Mangolong represent rainmaking. We see here a water thing, or water cow... They then charm the animal, and attach a rope to its nose,—and in the upper part of the picture it is shown as led by the Bushmen, who desire to lead it over as large a tract of country as they can, in order that the rain should extend as far as possible,—their superstition being that wherever this animal goes, rain will fall. The strokes indicate rain. Of the Bushmen who drag the water cow, two are men (sorcerers), of whom the chief one is nearest to the animal. In their hands are boxes made of tortoise (!khu) shell (containing charmed boochoo)...¹⁵

An interpretation led by the shamanistic propositions of Lewis-Williams and colleagues is that here we have healers, possibly wearing rhebok-eared caps (*cf.* [72], p. 13), experiencing a non-ordinary (“submerged”) state of consciousness, through which the abduction/capture of a mythical animal that is also a snake is envisioned or hallucinated. The “submerged” state of the men described by Qing can thus be interpreted as being in a dance-induced trance state—the state that enables the necessary potency for calling forth, working with and directing potent and important “supernatural” “animals”. Challis *et al.* ([4], p. 6) triangulate between the Sehonghong painting observed by Orpen and that prompted Qing’s stories, a painting of a similarly reined in giant coiled snake at the nearby Rain Snake Shelter, and /Xam descriptions of rain-making in the Bleek-Lloyd archive, to interpret Qing’s description as a clear reference to rainmaking through capturing a massive rain-animal, in this case figuratively clearly a snake, in the realm of non-ordinary consciousness. Indeed, humans connected with and/or drawing forth rain-associated animals is a significant motif in the southern African rock art, as shown in Figure 4.

Figure 4. Human figure drawing forward an eland, Upper Brandberg/Dâures. Source: Sian Sullivan, 2008, personal archive.



Challis *et al.* ([4], p. 6) connect the narrative with rain-animals identified in the Bleek-Lloyd-/Xam archive, including those designated as “water thing”, “water cow”, and “rain bull” (also see summary in Hoff [6], p. 22; [72]). These again reflect the ambiguously potent gender aspect of this snake-like presence. The /Xam term *!khwa* for both water and rain, as well as for the powerful “personification” of these, also suggests that these descriptors of the animal’s identity are interchangeable. Snakes are described further as belonging to the rain or *!khwa-ka*, *i.e.*, “rain’s rain” ([4], p. 6 and references therein). As D. Morris ([24], pp. 156-183) surmises, drawing especially from the work of Hoff [7], Schmidt [26] and Von Wielligh [66], there is considerable evidence to suggest that the characteristics of the water bull overlap closely with *!Khwa*, the /Xam personification of rain and the water-associated snakes that we met in 3.1 above. In effect, rain, water, snakes and rain bull creatures seem to be aspects of one and the same thing ([24], pp. 156-183).

Again, there are echoes here with contemporary Khoe-speaking Damara/≠Nū Khoen and Hai//om for whom the term */nanu.s* meaning “rain”, is the same as that which designates the powerful female spirit entity—*/Nanu.s*. It is to */Nanu.s* that rain-healers direct their trance journeying so as to implore her for rain which they bring back into the everyday world (see film depiction by [87], also [13], [93], p. 123-124). Whilst the generative rain form may be different, there are thus significant correspondences in method and onto-epistemology between the descriptions noted above, and the knowledges and practices of Khoe “rain-shamans” into both historical and recent times. Further, for Khoe-speaking Damara there are snakes (*/ao.s*) in the clouds who are the children of */Nanu.s*. Once again we have here an assemblage between rain, healing, and supernatural rain entities who are, or are associated with, snakes.

Solomon [12] suggests instead that the “submerged” rhebok-human therianthropes in the rock art were intended as representations of ambiguously potent ancestral San of the mythological primal past, when humans and animals were not separate. Following Solomon [12], then, a different interpretation might see the human individuals in these images as “spirits of the dead” or ancestors from this primal time, the animal being subdued as the malevolent embodiment of the figure known variously as *//Gaua*, and the therianthropes as representations of the shared ontological status of humans and animals in this time. If San individuals entering potent snake-associated trance states are also seen as connecting with ancestral visionary power that experiences human, animal and spirit worlds to be mutable and corresponding with one another, however, then these explanations—the mythical and the shamanistic—need not be invoked as contradicting each other. As above, our own interpretation blends these positions. We interpret the images to indeed signify the experiences of individuals in an entranced and potent state of consciousness, but that part of this directed experience is comprised of entrance into the ancestral realm—constituted and affirmed in everyday awareness through stories and other onto-epistemological affirmations—where those who are entranced meet, negotiate with and even become the entities populating this primal realm. At the same time, if living KhoeSan are anything to go by, the very notion of looking for tight, consistent and persistent ideas and categories seems to us to be problematic (also [14]).

We also see these representations in strong connection with the material and dynamic landscapes within which they have been painted. For anyone who has spent time watching rainstorms “standing in the sky” and “walking” across the broad horizons of southern African landscapes, and particularly the dryland landscapes of west Namibia and the Kalahari, it is not a difficult leap to imagine the strange

animal forms in the rock art as echoing the animal shapes made by rain clouds and falling rain (see Figure 5). People dependent on this water would very much wish to draw this life-giving rain towards them. They would also have been well aware of the different desirabilities of types of rain. On the one hand, the hard (masculine) rain of torrential downpours,¹⁶ that pummels people and land alike to cause great movements of topsoil across the landscape and violent flash floods in dry river beds and that, ouroborus-like, takes us back to the first key theme we identified in this section, wherein “snakes can fill the country with water”. And on the other hand, the soft (in Khoekhoegowab *tsaura*) sustained rain, associated with the fecund, female and water-loving python, and that sinks into dry soil to bring out the green flush of grasses that is so attractive to grazing animals. It is tempting to see in the rock art of diverse “rain animals” emphases that reflect different requirements for intervention based around both inducing, seducing and capturing soft feminine rain, and calming and taming violent masculine rainstorms [31]. Both require the skilled intervention of individuals able to direct their consciousness into the “spirit world” wherein “rain animals” in whichever form can be met and negotiated with; and all such embodiments and interventions affirm a dynamic and mutable ontology informed by characteristics of “the snake”.

Figure 5. Scenes in west Namibia of the rain “standing in the sky”. Source: Sian Sullivan, personal archive.



The above provides some further interpretation of the complex and dynamic assemblage of snake forms and snake-like states of being that brings different, including primal, pasts into the present, and that weaves together a spectrum of varied snake-associated KhoSan expressions. As Schmidt ([26], p. 269) states, “there are no clear contours, no definite conceptions of mythical snakes but an immense conglomeration of information”, notable for its ambiguity and at times for its contradictory content. In our next and concluding section, we emphasise this aspect as precisely that which is significant about

snakes in KhoeSan understanding and beyond—in both their natural history and supernatural manifestations.

4. Conclusion—What an Extraordinary Snakey World We Live in...

In July 2007, not far from where we first presented this paper (see endnote 1), what was described as “a mysterious serpent-shaped feature”, some 60 metres long and dating to more than 4000 years BP, was found inscribed on the landscape near Hereford, UK. Carefully sculptured from laid surfaces of deliberately fire-cracked stones to undulate up and down through the whole of its length, as well as snaking sideways through the landscape, archaeological speculation is that it was used for ritual purposes, perhaps involving movement along its length [94]. This “Rotherhithe Serpent”, as it has become known, is thought to be similar to the “Great Serpent Mound”, in Ohio, USA, a 405m long effigy of a serpent structured into the landscape some two thousand years ago. In the later centuries from AD 750 to 1200, the play of shadows on the Mayan Temple of Kukulcan at Chichén Itzá becomes a giant snake descending to join a sculpted serpent head at the base of the pyramid’s 91 steps, a display timed precisely to occur each year on the spring and autumn equinoxes.¹⁷ In other contexts globally, naturally occurring landforms are celebrated as evoking snakelike forms. In the Caribbean Territory of Dominica, for example, “L’Escalier Tete-Chien”, the stairway of the great diamond-crested snake, is a volcanic rock feature protruding from the sea that marks where the Guardian of the Carib/Kalinago people emerged from his ocean resting place to the top of the mountain where he lives until the world is at peace again [95]. Australian aboriginal mythology is replete with references to snakes, including the “huge hideous snake, called Jeedara, or Ganba” who Mirning aboriginals believed “lived in the caves and blowholes of on the Nullarbor Plain”—the “hissing noises from the blowholes ... the sound of the monstrous snake’s breathing”—and who “ate anyone who came into his territory”, and in the ancestral Dreamtime was able to push up “the steep sea-cliffs so as to swim along beneath them” ([37], p. 27). Ramona and Desmond Morris ([96], p. 15) write further that “by far the most spectacular snakes in Australian aboriginal art are the mythical rainbow serpents. These usually live in waterholes during the dry season, but take to the thunder clouds when the rains come, sometimes appearing in the sky of rainbows”.

Back in southern Africa, Brian Morris ([97], p. 199) identifies a role of the python amongst Malawian Chewa that has striking resemblance to the python amongst KhoeSan and indeed the anaconda in South American contexts, both constrictor snakes of enormous potential size—linked mythologically and empirically to waters, rivers, deep pools and rainfall and accordingly a “key symbolic mediation between the supreme beings and humans”. And at “Python Rock” at Tsodilo Hills in Botswana, a site known for its concentration of rock art, a naturally occurring rock-form has been worked over millennia to enhance its snake-like appearance, through the addition of several hundred human-made indentations (cupules) into the rock surface whose dappled effects in sunlight are suggestive of snake-scales and movement [98]. Although controversial (as many archaeological interpretations are), recent suggestions are that this effect would have been amplified at night through the use of fire, generating a perception of actual movement by this several metre long “snake” that may have stretched back by tens of thousands of years. Such variously snake-inscribed landscapes,

landforms and monuments are complemented by portrayals of snake-like forms on rock faces in diverse places globally.

Testifying to the global significance of snakes, in *The Cult of the Serpent* the biologist Mundkur [99] takes in a large sweep of cross-disciplinary evidence to argue that the “near ubiquity of serpentine cults” in human culture, historically and currently around the world relates to the special qualities of fear and awe aroused in humans, and probably all primate species, by snakes. More symbolically-influenced interpretations hold that “the great snake” is a cross-cultural archetypal energy and mythical/symbolic motif that signals a unifying assemblage of associated entities/states of being infusing a dynamically animate earth whose liveliness could be appreciated and intervened with by humans [100] ([101], pp. 56-57). Clearly, the snake serves as a potent metaphor in many cultures across the world, being a noticeable global motif in rock art and inscribed landscapes, and a seemingly universal motif appearing in a collective unconscious of “iconic form constants”, as Bednarik has put it (in [15], p. 78; also [102]).¹⁸ Indeed, the Judeo-Christian reduction of the serpent and its potent symbolism to the status of feminine and devilish evil is a manifestation of this continuing potency (*cf.* [100], p. 598), filtered through the particular lens of an ascendant patriarchy and the increasingly accumulative and land-controlling production strategies of the last several thousand years.¹⁹

It seems, then, that snakes are *par excellence* the animal that it is “good to think with” (after [103]). The key question is what is it about snakes that make them so good to think with that in the diverse KhoeSan material presented above they seem to act as something of a hypostasis—as an underlying or foundational state—into which just about everything of significance collapses or finds resonance? Following Chris Knight ([104], also [105]), we maintain that the answer to this question lies in the observable resonance that snakes have with the mysteriously unpredictable and simultaneously generative and destructive ground of life’s nature.

This view maintains that snakes, in their myriad and empirically observed forms, are powerful to think with because they capture, reflect and refract something of the ultimately uncategorisable mystery of life and vitality. This might be seen to be evoked by a range of directly observable behavioural and biological aspects. Their sinewy flexibility and muscular slithery movements, mysteriously enables them to propel themselves rapidly forward, despite the absence of limbs. Their ability to survive multiple sheddings of skins is suggestive of cyclical and full-bodied transformation, and resonant with observable and cross-scale dynamism. And a variety of simultaneously masculinised and feminised characteristics, including a simultaneous dryness to the touch combined with a moist appearance, and a phallic shape, combined with an ability to engulf or swallow prey like a vagina engulfing the phallus, evoke gendered ambiguities, mutabilities and potencies. These and other characteristics speak of androgyny, paradox and ambivalence, of shapeshifting and cyclical transformation, and of immanent movement, flux and flow. As such perhaps snakes are good to think because they act fractal-like as a “portal” through which something is conveyed of the quality of life’s mysterious and unpredictably generative and destructive potency. As Knight ([104], p. 455) states “what all these myths are referring to is not a thing at all”, but a *logic*—a way of thinking.

We consider that the ethnographic information we have discussed above affirms, in all its detail and particularity, the broad contours of this “logic”. At the same time, it is hardly surprising that snakes were significant to KhoeSan ancestors, given that southern Africa is rich snake country, from giant constricting pythons to deadly mambas and cobras to the less venomous, less gracile but more

frequently encountered puff adder. Our suggestion in this paper, then, is that contemporary ethnography can continue to inform cultural knowledges regarding both natural history and the supernatural snakes that appear to people now, and are conveyed in the painted and inscribed snakes on rock faces. Through this triangulation, we hope to have enhanced the range of suggestive, if ultimately untestable, explanations of the role(s) of such snakes in the situated subjectivities of their artists.

Acknowledgments

We are grateful to the many KhoeSan people we have known and interviewed over the past two decades during our research. Sian Sullivan would like to thank in particular Andy Botelle of Mamokobo Video and Research, for making it possible for her to journey several times to rock art sites on the Brandberg/Dâures in Namibia. We both also appreciate the comments made by Andy Botelle, Martin Pedersen, Mike Hannis and two anonymous reviewers on an earlier version of this paper. The paper has been written in the course of a Major Research Grant (AH/K005871) from the UK's Arts and Humanities Research Council (AHRC) and we gratefully acknowledge this support.

Endnotes

¹ We first presented this paper in June 2009 as “Shades of the rainbow serpent: a KhoeSān animal between myth and landscape in Southern Africa”, at the Conference *Living Landscapes*, Aberystwyth University.

² Challis *et al.* ([5], p. 1) say the only time. We know of at least one other occasion. The South African archaeologist Revil Mason visited rock art sites on the Brandberg/Dâures, Namibia, in 1995 with San people from Botswana's Kuru Arts project (<http://www.kuruart.com/>). They visited and spent a night at Snake Rock shelter in the Upper Hungorob. Unfortunately, no enquiry was made as to what the San artists from Kuru thought of the rock art in the shelter. It seems, however, that the art did provoke a significant response. That night the San artists danced, sang, clapped and no doubt tranced all night at the shelter, suggesting that they were moved to do so by their connection with the content of the art (Revil Mason, personal communication to Sullivan, 2009; and Andrew Botelle, personal communication).

³ Nb. The consecutive ordering of these themes in Orpen's 1874 text may be an artefact of the way he pieced Qing's narrative together, *i.e.*, rather than reflecting the order in which Qing related these stories.

⁴ Nb. Differing views existing regarding the frequency of the appearance of snakes in southern African rock art, with one reviewer of this paper noting that on the basis of 16 years' fieldwork, snakes are a relatively common rupestrian motif. They certainly tend to feature relatively prominently when they do appear in this context.

⁵ By “onto-epistemology” we mean reasoned knowledge flowing from particular cultural and historically situated assumptions regarding the nature of reality, and the methods through which, given these assumptions, it is possible to know this. We derive the term “onto-epistemology” from [18].

⁶ We use neologisms “socionature”, “culturenature” and “ecocultural” to emphasise an onto-epistemology in which “social” and “natural” realms are entangled and mutually constitutive rather than distinct and separate (*cf.* [57,58,59], [60], p. 27). Such an approach seems to us to be well attuned to our focus in this paper, given what we understand as KhoeSan appreciations of such entanglements.

⁷ Following [67], for terms in Khoekhoegowab a full-stop is used to demarcate the word stem from the male, female and plural markers .b, .s . and .n or .i respectively.

⁸ Strictly speaking the term “buchu’ indicates a particular aromatic species known to the settlers in South Africa (*Agathosma betulina*), but is frequently used as a designation for an aromatic powder used by KhoeSan throughout southern Africa and made from a mixture of aromatic plant parts from a number of species (*cf.* [30,69]).

⁹ Termed “/awi!nana.b’, literally “falling-/rain-colours’, by Sesfontein Damara (Sullivan personal fieldnotes).

¹⁰ Probably leaves and stems of *Sceletium* spp., (according to analysis by [73], pp. 43-46).

¹¹ Thus some Khoe-speaking Naro [13], influenced by European missionary thinking, consider that the snake tongue stings in ways reminiscent of lightning and also that the split in the tongue exists because snakes are associated with the side of their deity that does not always speak the truth.

¹² See [13] for a fuller discussion of KhoeSan praxes in relation to generating immunity.

¹³ Nb. drawing on the /Xam archive and Ju/’hoan ethnography, Challis ([72], p. 17-19) argues that the notion of taming snakes does not equate to wider ideas of possessing the potency of a snake, eland or another animal, but simply to the “luck” of having “influence’ over snakes. Our own ethnographic research, however, indicates that the way people have influence over the weather and animals is by being in intentional relationship with them and thereby sharing a kind of kinship with them. In this sense “taming” fits within a wider family of ideas that include ideas of “possessing”, “owning” or “working with” certain animals and/or the rain, as well as with the notions of “luck” that Challis links to ideas of “influence” and decouples from potency acquired through directed action and intent (discussed further in [82]).

¹⁴ Although this idea has received some prominence in the literature, the majority of references are to one claim made by a Ju/’hoansi man interviewed by Biesele. This specific description is absent in the authors’ experience (particularly in Low’s research on the healing trance dance). This absence suggests the expression may be more idiosyncratic than representative, and should be treated with some caution as an interpretative metaphor in rock art. It is notable that Biesele ([31], p. 70-72) in fact introduces this story as an example of the role of idiosyncrasy in accounts of Ju/’hoan trance journeys. Although the term might be used by dancers, in the authors’ experience it seems less a specific reference to “trance’ and more an indicator of when the normal order of life is messed up and boundaries become unclear in ways that might also be dangerous or unpleasant. In Khoekhoegowab, overlaps between *gao*, meaning rotting, decay, musty smelling, *gao-gao-aob*, meaning spoiler or corrupter, and *gaogaosib*, meaning ruined and spoiled state ([89], p. 249), thus may give better indication of the wider context of the broader uses of the term “spoilt’ than that emphasized in rock art analysis. Sugawara ([90], p. 94) makes a similar observation amongst the Gui and Gana Bushmen for whom the term *!nāre* carries the multiple meanings of to be drunk, to sense and to have a hunch. Brody ([91], p. 239-242) among others has also argued that native American enthusiasm for alcohol might be based on a cultural embrace of the value of altered states of consciousness, an argument that might be pertinent to KhoeSan contexts where alcohol has a close, if problematic, relationship with many healers. One of us (Low) recently observed a not untypical but extreme example of this relationship when a Ju/’hoansi healer proclaimed that he needed to drink a crate a beer before he could commence healing. He described this requirement as his special technique.

¹⁵ Small tortoise shells from young tortoises are used by KhoeSan for storing *sâ.i* (e.g. Sullivan, personal observation for Damara and Ju/'hoan San). The powdered mixture of aromatic plants that they thereby contain is strongly associated with menarche, menstrual blood, and with female life-giving power [30], but is also used to support (normally male) healers as they direct their will towards entering the primal, mythological world associated with trance and the ancestors (see 3.4, also [87]). The relationship between blood and women is developed in a metaphorical string that results in a tortoise becoming a metaphor for a woman's genitals and having sex, and tortoise shells thereby being seen as able to cleanse menstrual blood. At the same time, the /Xam described tortoises and snakes as "rain things", denoting a sense of mutuality (*cf.* Bleek-Lloyd-/Xam archive). So, for example, both tortoises and snakes are observed to head for high ground when it rains. Thus there is an association of potency here between rain, snakes, tortoises, menarche, menstrual blood, and *sâ.i*, affirmed etymologically through the Nama term written by Theophilus Hahn as *au.b* to describe "snake", "the one who flows" and blood, as well as to bleed—"au", and rain—"au-ib" ([92], pp. 78-9).

¹⁶ Associated by /Xam informants with the embodiment of !*Khwa* as rain, water in waterholes, eland, rain bull, rain animal and attracted to secluded menarcheal females, see summary in Solomon ([12], p. 5).

¹⁷ See <http://travel.nationalgeographic.co.uk/travel/world-heritage/chichen-itza/> accessed 22 January 2013.

¹⁸ An anecdote serves to illustrate this point. When we presented this paper at the *Living Landscapes* conference in 2009 (see endnote 1) Low made an unrehearsed reference to being told by a San healer that the most potent things to see in a healing ceremony were the snake, the cat and lightning. This provoked an interjection from Sullivan, who not long previously had returned from a short period of fieldwork with *ayahuasca* healers in Ecuador and Peru. In one of the ceremonies in which she participated the healer, Don Lucho, introduced the medicine by saying: "of the things you may see three are the most potent for healing. They are the snake, the cat and lightning" (Sullivan, personal fieldnotes, 2008).

¹⁹ The particularly constructed nature of this interpretation of the serpent in Genesis is indicated by records that second-century Gnostics worshipped Jesus "as the perfect serpent" who celebrated dance as the way of knowing life: thus, "who dances not knows not the way life" (in [100], p. 606).

Conflicts of Interest

The authors declare no conflict of interest.

References

1. McGranaghan, M.; Challis, S.; Lewis-Williams, J.D. Joseph Millard Orpen's 'A glimpse into the mythology of the Maluti Bushmen': a contextual introduction and republished text. *Southern African Humanities* **2013**, *25*, 137-166.
2. Bleek, W. Remarks. *The Cape Monthly Magazine* **1874**, *9*, 10-13.
3. Orpen, J.M. 1874 A glimpse into the mythology of the Maluti Bushmen. *Cape Monthly Magazine* *9*, 1-10.

4. Challis, S.; Hollman, J.; McGranaghan, M. 'Rain snakes' from the Senqu River: new light on Qing's commentary on San rock art from Sehonghong, Lesotho. *Azania: Archaeological Research in Africa* **2013** <http://dx.doi.org/10.1080/0067270X.2013.797135>
5. Schapera, I. *The Khoisan Peoples of Southern Africa*, Routledge & Kegan Paul: London, 1930.
6. Barnard, A. *Hunters and Herders of Southern Africa: A Comparative Ethnography of the Khoisan Peoples*, Cambridge University Press: Cambridge, 1992.
7. Hoff, A. The water snake of the Khoekhoen and /Xam. *South African Archaeological Bulletin* **1997**, *52*(165), 21-37.
8. Sullivan, S. Difference, identity and access to official discourses: Hai//om, 'Bushmen', and a recent Namibian ethnography. *Anthropos* **2001**, *96*, 179-192.
9. Wintjes, P. A pictorial genealogy: the rainmaking group from Sehonghong Shelter. *Southern African Humanities* **2011**, *23*, 17-54.
10. Mitchell, P.; Challis, S. A 'first' glimpse into the Maloti Mountains: the diary of James Murray Grant's expedition of 1873-74. *Southern African Humanities* **2008**, *20*, 399-461.
11. Lewis-Williams, J.D. *Believing and Seeing: Symbolic Meanings in Southern San Rock Paintings*. Academic Press: London, 1981.
12. Solomon, A. The myth of ritual origins? Ethnography, mythology and interpretation of San rock art. *South African Archaeological Bulletin* **1997**, *52*, 3-13.
13. Low, C. KhoeSan shamanistic relationships with snakes and rain. *Journal of Namibian Studies* **2012**, *12*, 71-96.
14. Power, C. *The Woman With the Zebra's Penis: Evidence for the Mutability of Gender Among African Hunter-Gatherers*. Masters Thesis, University College London, London, 1994.
15. Bednarik, R.G.; Lewis-Williams, J.D.; Dowson, T.A. On neuropsychology and shamanism in rock art. *Current Anthropology* **1990**, *31*(1), 77-84.
16. Pager, H. The ritual hunt: parallels between ethnological and archaeological data. *South African Archaeological Bulletin* **1982**, *38*, 80-87.
17. Lewis-Williams, J.D.; Pearce, D.G. *San Spirituality: Roots, Expression, and Social Consequences*. Alamira Press, Oxford, 2004.
18. Jones, A. Dialectics and difference: against Harvey's dialectical post-Marxism. *Progress in Human Geography* **1999**, *23*(4), 529-555.
19. Huffman, T.N. The trance hypothesis and the rock art of Zimbabwe. *South African Archaeological Society Goodwin Series* **1983**, *4*, 49-53.
20. Mallen, L. Linking Sex, Species and a Supernatural Snake at Lab X Rock Art Site. *South African Archaeological Society Goodwin Series* **2005**, *9*: 3-10.
21. Kinahan, J. Towards an archaeology of mimesis and rain-making in Namibian rock-art. In *The Archaeology and Anthropology of Landscape: Shaping your Landscape*, Layton, R., Ucko P.J., Eds.; Routledge: London, 1999, pp. 336-356.
22. Lenssen-Erz, T. Jumping about: springbok in the Brandberg rock paintings and in the Bleek and Lloyd collection—an attempt at a correlation. In *Contested Images: Diversity in Southern African Rock Art Research*, Dowson, T.A., Lewis-Williams, D. Witswatersrand University Press: Johannesburg, 1994, pp. 275-291.

23. Fuller, B. *Institutional Appropriation and Social Change Among Agropastoralists in Central Namibia 1916-1988*. PhD Dissertation, Boston Graduate School, Boston, 1993.
24. Morris, D. *Driekopseiland and 'the rain's magic power': history and landscape in a new interpretation of a Northern Cape rock engraving site*. Masters Thesis, University of the Western Cape, Cape Town, 2002.
25. Lenssen-Erz, T. Coherence—a constituent of 'scenes' in rock art. *Rock Art Research* **1992**, *9*(2), 87-105.
26. Schmidt, S. Mythical snakes in Namibia. In *Proceedings of the Khoisan Identities and Cultural Heritage Conference*, A. Bank, Ed.; Infosource: Cape Town, 1998, pp. 269-280.
27. Sullivan, S. Nature on the Move III: (Re)countenancing an animate nature. *New Proposals: Journal of Marxism and Interdisciplinary Enquiry* **2013**, *6*(1-2), 50-71.
28. Deacon, J. 2002 Southern African Rock-Art Sites, in collaboration with members of the Southern African Rock Art Project (SARAP). Available online URL <http://www.icomos.org/fr/notre-action/diffusion-des-connaissances/publications/etudes-thematiques-pour-le-patrimoine-mondial/116-english-categories/resources/publications/227-southern-african-rock-art-sites>; accessed 14 September 2013.
29. Lau, B. A critique of the historical sources and historiography relating to the 'Damaras' in pre-colonial Namibia. BA(Hons) Dissertation, University of Cape Town, Cape Town, 1979.
30. Sullivan, S. Gender, ethnographic myths and community-based conservation in a former Namibian 'homeland', In *Rethinking Pastoralism in Africa: Gender, Culture and the Myth of the Patriarchal Pastoralist*, Hodgson, D. Ed.; James Currey: Oxford, 2000, pp. 142-164.
31. Biesele, M. *Women Like Meat: The Folklore and Foraging Ideology of the Kalahari Ju'/'hoan*, Wits University Press and Indiana University Press: Bloomington and Indianapolis, 1993.
32. Vinnicombe, P. Myth, motive, and selection in Southern African Rock Art. *Africa* **1972**, *42*(3), 192-204.
33. Vinnicombe, P. *People of the Eland: Rock Paintings of the Drakensberg Bushmen as a Reflection of Their Thought and Life*, Wits University Press: Witswatersrand, 2009(1976).
34. Carthailac, É., Breuil, H. *La Caverne d'Altamira à Santillane près Santander (Espagne)*. Monaco, 1906.
35. Curtis, G. *The Cave Painters: Probing the Mysteries of the First Artists*. Anchor Books: New York, 2006.
36. Taçon, P.S.C. "If you miss all this story, well bad luck": Art and the validity of ethnographic interpretation in western Arnhem land, Australia. In *Rock Art and Ethnography*, Morwood, M.J., Hobbs, D.R. Eds.; Australian Rock Art Research Association Occasional Publication 5: Melbourne, 1992, pp. 11-18.
37. Flood, J. *Rock Art of the Dreamtime: Images of Ancient Australia*. Angus&Robertson: Sydney, 1997.
38. Echo-Hawk, R. *The Magic Children: Racial Identity at the End of Race*. Left Coast Press Inc.: Walnut Creek, CA, 2010.
39. Robbins, L.H., Campbell, A.C., Brook, G.A. and Murphy, M.L. World's oldest ritual site? The 'Python Cave' at Tsodilo Hills World Heritage Site, Botswana. *NYAME AKUMA, the Bulletin of the Society of Africanist Archaeologists* **2007**, *67*, 2-6.

40. Sullivan, S. *People, Plants and Practice in Drylands: Sociopolitical and Ecological Dynamics of Resource Use by Damara Farmers in Arid North-West Namibia*. PhD Thesis, University College London, London, 1998, online <http://discovery.ucl.ac.uk/1317514/>.
41. Sullivan, S. 2005 Detail and dogma, data and discourse: food-gathering by Damara herders and conservation in arid north-west Namibia. In *Rural Resources and Local Livelihoods in Sub-Saharan Africa*, Homewood, K. Ed.; James Currey and University of Wisconsin Press: Oxford, pp. 63-99.
42. Smith, A.B. *Pastoralism in Africa: origins and development ecology*. Hurst: London, 1992.
43. Homewood, K. *Ecology of African Pastoralist Societies*. James Currey: Oxford, 2008.
44. Kinahan, J. From the beginning: the archaeological evidence. In *A History of Namibia: From the Beginning to 1990*, Wallace, M. Hurst & Co: London, 2011, pp. 15-43.
45. Lee, R.B. *The !Kung San: Men, Women, and Work in a Foraging Society*. Cambridge University Press: Cambridge, 1979.
46. Elphick, R. *Khoikhoi and the Founding of White South Africa*. Raven Press: Johannesburg, 1985(1977).
47. Wilmsen, E. *Land Filled With Flies: A Political Economy of the Kalahari*. University of Chicago Press: Chicago, 1989.
48. Gordon, R.J. And Sholto Douglas, S. *The Bushman Myth: The Making of a Namibian Underclass*. Westview Press: Boulder, 2000.
49. Hammond-Tooke, W.D. Divinatory animals: further evidence of San/Nguni borrowing? *South African Archaeological Bulletin* **1999**, *54*: 128-132.
50. Jolly, P. The San rock painting from “The Upper Cave at Mangolong”, Lesotho. *South African Archaeological Bulletin* **2006**, *61*(83), 68-75.
51. Low, C. *Khoisan Medicine in History and Practice*. Rüdiger Köppe Verlag: Köln, 2008a.
52. Low, C. Khoisan wind: hunting and healing. In *Wind, Life, Health: Anthropological and Historical Perspectives*, Hsu, E. and Low, C. Eds.; Oxford, Blackwell Publishing: Oxford, 2008b, pp. 65-84.
53. Sullivan, S. Folk and formal, local and national: Damara cultural knowledge and community-based conservation in southern Kunene, Namibia. *Cimbebasia* **1999**, *15*, 1-28.
54. Schmidt, S. *Catalogue of the Khoisan Folktales of Southern Africa*. Buske: Hamburg, 1989.
55. Guenther, M. *Tricksters and Trancers: Bushman Religion and Society*. Bloomington: Indiana University Press, 1999.
56. Mitchell, P.J., Plug, I. Ritual mutilation in southern Africa: gender and ethnic identities and the possibilities of archaeological recognition. In *Our Gendered Past: Archaeological Studies of Gender in Southern Africa*, Wadley, L. Ed., Witswatersrand University Press: Johannesburg, 1997, pp. 135-166.
57. Swyngedouw, E. Modernity and hybridity: nature, regeneracionismo, and the production of the Spanish waterscape, 1890-1930. *Annals of the Association of American Geographers* **1999**, *89*(3), 443-465
58. Ingold, T. *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill*. Routledge: London, 2000.
59. Latour, B. *Politics of Nature: How to Bring the Sciences into Democracy*. Harvard University Press: Cambridge Massachusetts, 2004.

60. Mabey, R. *Nature Cure*. Vintage: London, 2008.
61. Deleuze, G., Guattari, F. *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi. The Athlone Press: London, 1988(1980).
62. Latour, B. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press: Oxford, 2007.
63. Foucault, M. *Security, Territory, Population. Lectures at the Collège de France 1977/78*. Palgrave MacMillan: Basingstoke, 2009(1977/78).
64. Alexander, J.E. *An Expedition of Discovery into the Interior of Africa, Vol. 1*. Struik: Cape Town, 1967(1838).
65. Andersson, C.J. *Lake Ngami*. Hurst & Blackett: London, 1856.
66. Von Wielligh, G.R. *Boesman Stories. Deel 1: Mitologie en Legendes*. Nasionale Pers: Cape Town, 1921.
67. Eiseb, E., Giess, W., Haacke, W. A preliminary list of Khoekhoe (Nama/Damara) plant names. *Dinteria* **1991**, *21*, 17-29.
68. Botelle, A., Scott, R. *Born in Etosha, parts 1 and 2*. Mamokobo Video and Research: Windhoek, 2011.
69. Low, C. Different histories of buchu: Euro-American appropriation of San and Khoekhoe knowledge of buchu plants. *Environment and History* **2007**, *13*, 333-361.
70. Sullivan, S. Protest, conflict and litigation: dissent or libel in resistance to a conservancy in north-west Namibia. In *Ethnographies of Conservation: Environmentalism and the Distribution of Privilege*, Berglund, E. and Anderson, D. Eds.; Berghahn Press: Oxford, 2003, pp. 69-86.
71. Bleek, D.F. Beliefs and customs of the /Xam Bushmen. Part V: The rain. *Bantu Studies* **1933**, *9*, 1-47.
72. Challis, W. 'The men with rhebok's heads; they tame elands and snakes': incorporating the rhebok antelope in the understanding of Southern African rock art. *South African Archaeological Society Goodwin Series* **2005**, *9*, 11-20.
73. Mitchell, P., Hudson, S. Psychoactive plants and southern African hunter-gatherers: a review of the evidence. *Southern African Humanities* **2004**, *16*, 39-57.
74. Marais, J. *A Complete Guide to the Snakes of Southern Africa*. Struik: Johannesburg, 1992.
75. Schatz, I. *Unter Buschleuten auf der Farm Otjiginas*. Ilsa Schatz: Tsumeb, 1993.
76. //Khumub, K., Botelle, A., Scott, R., Bosman, C. *The Awakening*. Mamokobo Video and Research: Windhoek, 2007a.
77. Marshall, L. !Kung Bushman religious beliefs. *Africa* **1962**, *32*, 221-251.
78. Silbabauer, G. *Hunter and Habitat in the Central Kalahari Desert*. Cambridge University Press: Cambridge, 1981.
79. Valientes-Noailles, C. *The Kua: Life and Soul of Central Kalahari Bushmen*. A.A. Balkema: Rotterdam, 1993.
80. Barnard, A. Structure and fluidity in Khoisan religious ideas. *Journal of Religion in Africa* **1988**, *18*, 216-236.
81. Lewis-Williams, J.D., Dowson, T. *Images of Power: Understanding San Rock Art*. Struik Publishers, Cape town, 1989.

82. Low, C. Khoesan ethnography, 'new animism' and the interpretation of Southern African Rock Art. *South African Archaeological Bulletin*. In press.
83. Viveiros de Castro, E. Exchanging perspectives: the transformation of objects into subjects in Amerindian ontologies. *Common Knowledge* **2004**, *10*(3), 463-84.
84. Katz, R. *Boiling Energy: community healing among the Kalahari Kung*. Harvard University Press: Cambridge (Mass.), 1982.
85. Sullivan, S. On dance and difference: bodies, movement and experience in Khoesān trance-dancing. In *Talking About People: Readings in Contemporary Cultural Anthropology*, 4th Edition, Haviland, W.A., Gordon R., and Vivanco, L. Eds.; McGraw-Hill, New York, 2006, pp. 234-241.
86. Keeney, B. 2005 *Bushman Shaman: Awakening the Spirit Through Ecstatic Dance*. Destiny Books: Rochester, Vermont, 2005.
87. //Khumub, K., Botelle, A., Scott, R., Bosman, C. *Journey of a Rain Shaman*. Mamokobo Video and Research: Windhoek, 2007b.
88. Lewis-Williams, J.D. Southern African shamanistic rock art in its social and cognitive contexts. In *The Archaeology of Shamanism*, Price, N.S. Ed., Routledge: London, 2001 pp. 17-42.
89. Haacke, W.H.G., Eiseb, E. *A Khoekhoegowab Dictionary With an English-Khoekhoegowab Index*. Gamsberg Macmillan: Windhoek, 2002.
90. Sugawara, K. Cognitive space concerning habitual thought and practice toward animals among the central San (Gui and Gana): deictic/indirect cognition and prospective/retrospective intention. *African Study Monographs*, **2001**, *27*, 61-98.
91. Brody, H. *The other side of Eden: hunters, farmers and the shaping of the world*. North Point Press: New York, 2001.
92. Hahn, T. T. *Tsuni-llgoam: The Supreme Being Of The Khoi-Khoi*. Kessinger Publishing LLC: Whitefish, MT, 1881.
93. Sullivan, S. 'Ecosystem service commodities'—a new imperial ecology? Implications for animist immanent ecologies, with Deleuze and Guattari. *New Formations: A Journal of Culture/Theory/Politics*, Special issue, entitled 'Imperial Ecologies' **2010**, *69*, 111-128.
94. BBC 2007 Workers discover ancient 'snake'. *BBC News UK* 4 July 2007. Available online URL <http://news.bbc.co.uk/1/hi/england/hereford/worcs/6268900.stm> accessed 22 January 2013.
95. Walters, M. *Yet we Survive the Kalinago People of Dominica: Our Lives in Words and Pictures*. Papillote Press: London, 2007.
96. Morris, R. and Morris, D. *Men and Snakes*. McGraw Hill: Maidenhead, 1965.
97. Morris, B. *Animals and Ancestors: An Ethnography*. Berg: Oxford, 2000.
98. Research Council of Norway. World's oldest ritual discovered—worshipped the python 70,000 years ago. *ScienceDaily* 30 November 2006. Available online URL <http://www.sciencedaily.com/releases/2006/11/061130081347.htm> accessed 22 January 2013.
99. Mundkur, B. *The Cult of the Serpent: An Interdisciplinary Survey of Its Manifestations and Origins*. State University of New York: New York, 1983.
100. Thông, H.S. *The Golden Serpent: How Humans Learned to Speak and Invent Culture*. Thông, H.S.: self-published, 1999.

101. Broadhurst, P., Miller, H. *The Sun and the Serpent: A Journey Through the British Landscape, its Mythology, Ancient Sites and Mysteries*. Mythos: Launceston, Cornwall, 2003(1989).
102. Willis, R. The meaning of the snake. In *Signifying Animals: Human Meaning in the Natural World*, Willis, R. Ed.; Routledge: London, 1990, pp. 233-239.
103. Levi-Strauss, C. *Totemism*. The Merlin Press: Pontypool, 1991(1962).
104. Knight, C. *Blood Relations: Menstruation and the Origins of Culture*. Yale University Press: London, 1991.
105. Narby, J. *The Cosmic Serpent: DNA and the Origins of Knowledge*. Phoenix: London, 1999.

© 2014 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).