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MANTIDS, SOUTHERN AFRICAN ROCK ART AND CONCEPTUAL ASSOCIATIONS WITH REFERENCE TO THE EVOLUTIONARY DEVELOPMENT HYPOTHESIS (EDH)

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Abstract. Mantids are insects that are well camouflaged in their natural habitats. It is proposed as a hypothesis that San in southern Africa associated them with the use of hunting disguises (camouflage) as well as with a ritual in which (anatomically) the 'posture of the mantis' is adopted. Reference is made to rock art from four particular sites: Medikane, Orange Springs, Fulton Rock Shelter and Apollo 11. It is recommended that, in the case of iconic Medikane therianthropes, concepts associated with ritual and (perhaps vestigial) aspects of the use of disguises be integrated.

Introduction

The praying mantis is a globally diverse insect that is well camouflaged in its natural habitat. Examples of African mantids (*Sphodromantis gastrica*) are shown in Figs 1 and 2. Such animals feature in San cosmology, notably in the context of a supernatural agency named /Kaggen, which is itself a term for the mantis (Bleek 1924). For purposes of this anatomical, ethological (animal behaviour), linguistic and cultural study, with reference to pre-Historic art in southern Africa, the photographs in Figs 1 and 2 are compared with an iconic rock painting (ORP 2) of a 'therianthrope' (part animal, part human) from the site of Medikane in Lesotho (Fig. 1), recorded by Orpen (1874).

Details of the importance of rock art from Medikane have been provided by Lewis-Williams (1981a, 2019) and Solomon (2008), who recognise that the paintings from this site are among the very few examples of rock art for which we have ethnographic evidence. Other examples of

rock art from South Africa are examined in relation to concepts associated with the use of skins as hunting disguises (Thackeray 1983) or with San beliefs (Bleek 1935). The San are generally assumed to have been the artists primarily responsible for paintings and engravings in southern Africa, with evidence extending back at least 10,000 years at Wonderwerk (Thackeray et al. 1981) and at least 30,000 years at Apollo 11 (Wendt 1976; Vogelsang et al. 2010), and possibly to 77,000 years if engravings from the site of Blombos in the Southern Cape are considered as art (Henshilwood

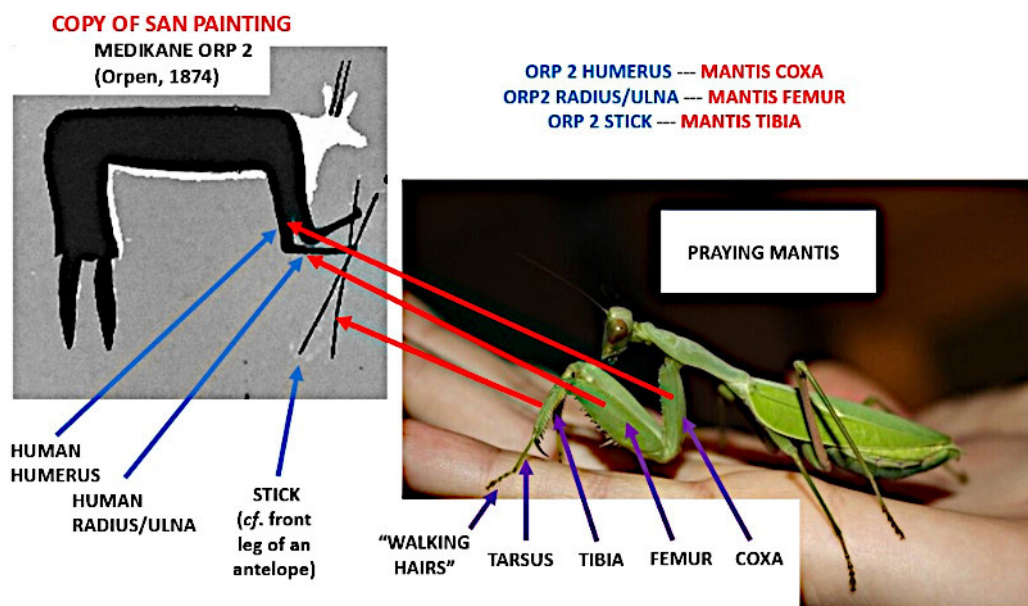


Figure 1. A therianthrope (ORP 2, left) from Medikane (Lesotho) recorded by Orpen (1874), compared with a praying mantis (right): *Spodromantis gastrica*. Photograph credit: Barbara Wright for Wild Tomorrow.

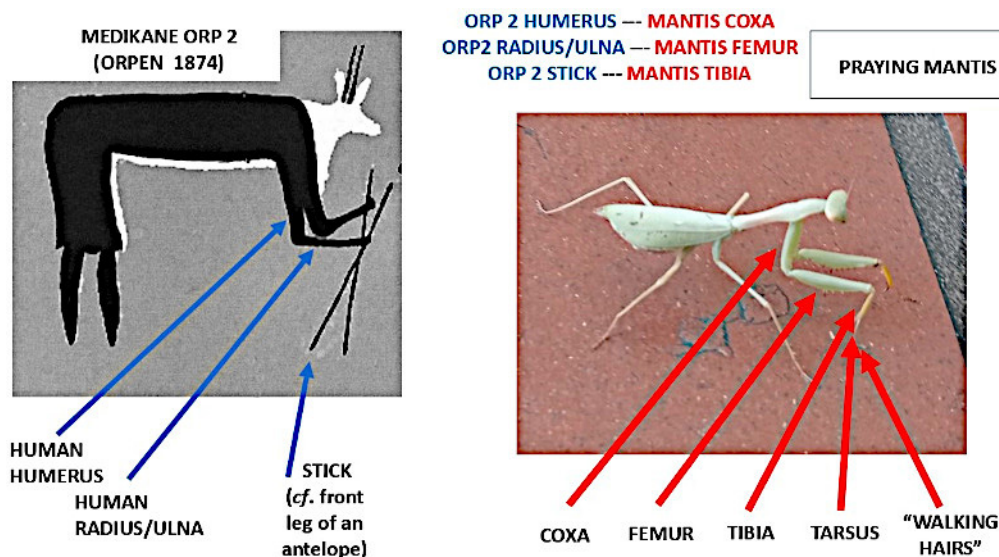


Figure 2. A mantis compared to the Medikane ORP 2 therianthrope. Photograph by FT.



Figure 3. Five individuals (including OS 1) bending forward with two sticks and adopting what is alleged to have been 'the posture of a mantis', surrounded by clapping onlookers. This scene is recognisable as a ritual. Orange Springs, Ladybrand, Free State (Lewis-Williams 1981a: 125, with permission; Courtesy of the Rock Art Research Institute, RARI).

et al. 2002).

The mantis, camouflage and the use of skin disguises

Insects are characterised by having six legs. In mantids, each leg comprises a coxa, femur and tibia. Anatomically, the humerus (upper arm) of a painted therianthrope from Medikane (ORP 2 in Figs. 1 and 2) could be considered analogous to a mantid's foreleg coxa, and likewise the radius/ulna (lower arm) of ORP 2 could be considered analogous to a foreleg femur of a mantis. Two sticks carried by the therianthrope could correspond to a mantid's foreleg tibiae (Figs. 1 and 2).

ORP 2 also resembles human figures in a painting of a ritual at Orange Springs in the Free State in central South Africa (Fig. 3). A colour photograph of this scene has been published by Lewis-Williams and Challis (2011: Pl. 6). The copy was shown to !Kung (San) informants interviewed by Wilmsen (pers. comm. to Lewis-Williams, 1981a). Allegedly, they stated that the manner in which individuals held sticks (e.g. OS 1) is called 'the mantis'. Battiss et al. (1958) and Willcox (1963) referred to the scene as a representation of a Mantis dance but did not provide a source.

The camouflage of a mantis can be regarded as analogous to hunting disguises. Linguistically, there is an indication of a conceptual association between mantids, camouflage and disguise (Thackeray 1994). This is reflected in San words *kwa kwa ita* (disguise in SI), *kwa kwa ri* (mantis in !Kung) and *kwa kwa sikuiten* (something elusive in SI) (Bleek 1956: 110). Despite the fact that these words are/were used in different languages (!Kung and SI), reference can be made to the following statement (Thackeray 1994: 225):

When suggesting that a common form reflects a conceptual association, it is not necessary to assume that it must be found in words of any one language. Every language is the product of events that occurred

in prehistory, including the expansion, contraction and isolation of population groups [in response to climatic change for example], such that words of common form in different languages may still reflect conceptual associations that developed in the past.

A painting at Fulton's Rock (Fig. 4, left) in south-eastern South Africa shows an individual apparently with a skin 'becreeping cap' of the kind described by Burchell (1824) as a hunter's 'bekruipmuts', made from the skin of a small antelope called springbok (*Antidorcas marsupialis*). This individual with a skin cap is adjacent to an antelope, which (like a mantis) can turn its head 180 degrees, in this case as if looking towards the disguised hunter (Thackeray 1983). The painting is compared with a photograph (Fig. 4, right) of an antelope displaying what has been called 'primary curiosity behaviour' (PCB), with its head turned towards the source of curiosity (Thackeray 1983: 42).

In behavioural experiments, Thackeray (1983) noted that antelopes such as springbok displayed PCB out of curiosity when approached by him (i.e. the disguised ethologist under a springbok skin, simulating a hunter). The antelopes would not run away imme-

diately: they would momentarily stop, stand and stare; stamp their feet (stotting); and prick their ears. On some occasions, the antelopes would be so curious that they would approach the ethologist (cf. disguised hunter), coming well within the range of a Bushman's arrow (at least 25 metres). The use of a skin disguise increased the probability of stimulating such 'secondary curiosity behaviour' (SCB) in addition to PCB, thereby increasing the probability of a successful hunt (Thackeray 1983).

In San ethnography, an informant named Dia!kwain stated that a person named Tano-!khauken wore a skin cap made from the head of a springbok (cf. a disguise), which would 'let the springbok come to her that she might eat springbok' (Bleek 1935: 45). Thackeray's (1983) interpretation is that the animal's alleged act of approaching Tano-!khauken was an expression of SCB, perceived by hunters and painters in terms of supernatural potency of the kind called *n|om* in San ethnography (Marshall 1969; Lewis-Williams 1981a, 1981b).

Ritual

Theoretically, the ORP 2 therianthrope from Medikane (Fig. 1) could be associated with the use of a disguise (How 1962). However, it strongly resembles a human 'buckjumper' (Thackeray, 1993, 2005, 2013, 2019, 2023) bending forward beneath the head and skin of an antelope, in what appears to have been a ritual context (Fig. 5).

The skin of the 'buckjumper' appears to bear painted stripes ('symbolic wounds'?). As with ORP 2, this individual holds two sticks to represent the front legs of a horned antelope (Thackeray 2005). Furthermore, the 'buckjumper' resembles an adjacent ORP 1 therianthrope from Medikane (Fig. 6) with 'symbolic wounds' (Thackeray and LeQuellec 2007; Thackeray 2023).

The Evolutionary Development Hypothesis

The observations above can be interpreted in the context of an EDH 'evolutionary development hypothesis' (Thackeray 2023), which holds that rock art in southern Africa has developed over time. The following are extracts from his study (Thackeray 2023: 292):

In the context of painted therianthropes such as those represented for example at [Medikane] ... I

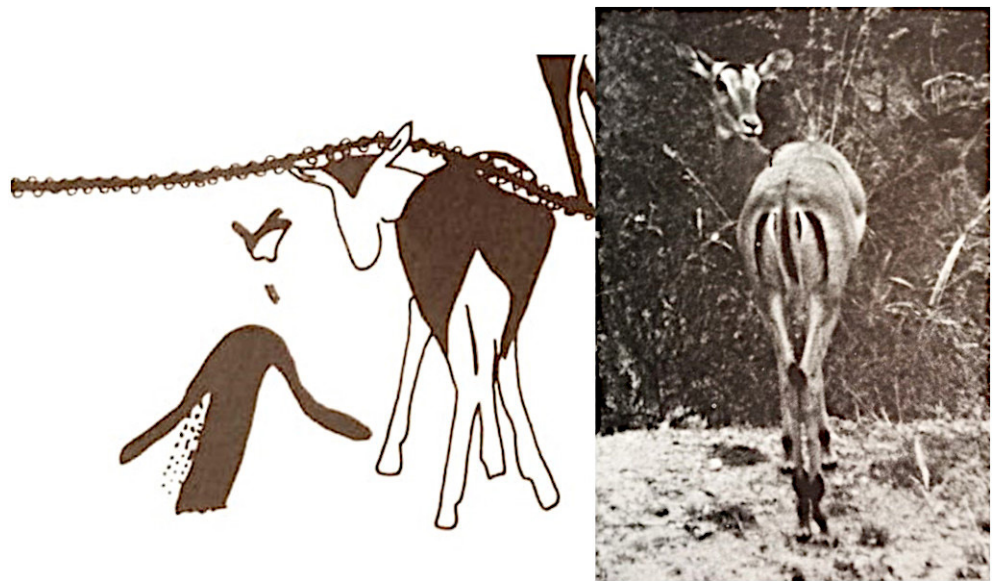


Figure 4. Left: Painting from Fulton's Rock (Thackeray 1983; after Lewis-Williams 1981b; courtesy of the Rock Art Research Institute, RARI) depicting an antelope and an individual wearing a skin 'becreeping cap' (cf. disguise), compared with a photograph (right) of an antelope displaying primary curiosity behaviour (PCB) with its head turned towards the source of attention (Thackeray 1983). Photograph by FT.

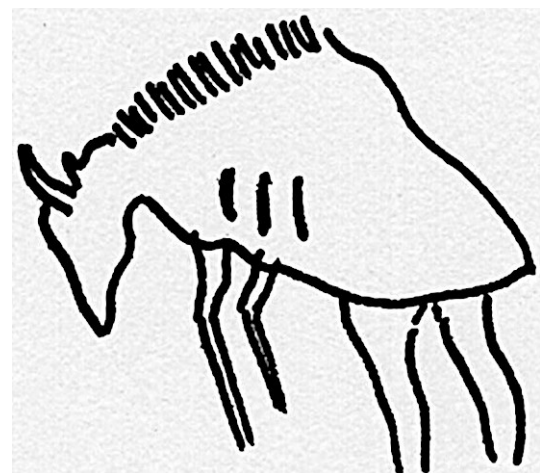


Figure 5. Sketch drawn from a photograph (McGregor Museum, Kimberley, MMK 1421/292) of a person (a 'buckjumper') depicted under the head and skin of an antelope (sketched by Thackeray 2005, 2023). Two sticks are carried as if representing the antelope's front legs. Logageng, Northern Cape Province, north of Kuruman, South Africa. The 'buckjumper' resembles an ORP 2 therianthrope from Medikane (Fig. 1). Painted stripes may represent symbolic wounds.

propose an 'Evolutionary Development Hypothesis' (EDH), expressing the view that at least some trance-related art and beliefs associated with animals and [ritual functionaries] developed at least in part from non-shamanistic rituals in which either (a) or (b) or both apply: (a) A hunter symbolically wounds an image of an animal (painted, engraved or drawn in sand) in the belief that this would contribute to success in a future hunt. This relates to Thackeray's (1986) Type 1 of the principle of so-called 'sympa-

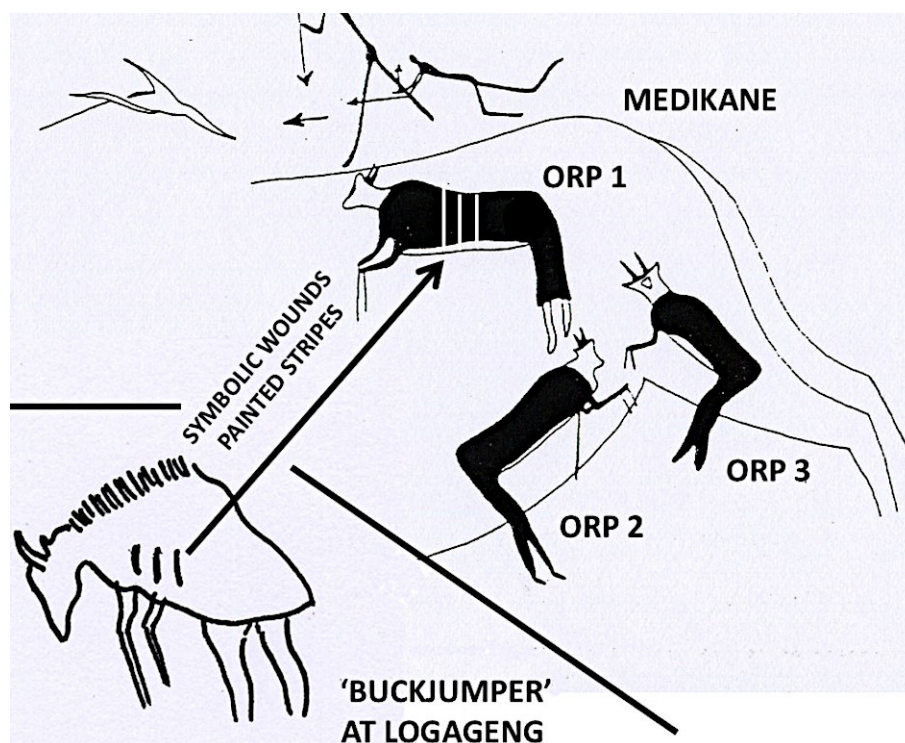


Figure 6. Three therianthropes (ORP 1, ORP 2 and ORP 3) from Medikane (Lesotho) and the 'buckjumper' from Logageng (from Thackeray 2023).

thetic hunting magic', here referred to instead as 'Empathetic Relationship Type 1' (ERT-1), relating to a form of empathy between hunter and animal. (b) A hunter takes on the resemblance of an animal in a ritual in which he is symbolically wounded by his fellow hunters, in the belief that this will contribute to success in a future hunt. This relates to Thackeray's (1986) Type 2 of the principle of 'sympathetic hunting magic', here referred to instead as 'Empathetic Relationship Type 2' (ERT-2).

Thackeray (2023: 295) goes on to say that there is, in fact, ethnographic evidence for the ERT-2 type of ritual. He refers to a report by Lichtenstein (1812), which states that such rituals were believed *essential* for success in a prospective hunt:

Before a party goes out hunting, a very odd ceremony or sport takes place which they consider as absolutely necessary to ensure success to the undertaking. One of them takes a handful of grass into his mouth, and crawls about upon all-fours to represent some sort of game. The rest advance as if they would run him through with their spears, raising the hunting cry, till at length he falls upon the ground as if dead. If this man afterwards kills a head of game, he hangs a claw on his arm as a trophy, but the animal must be shared with the rest.

Thackeray (2023: 296) goes further to say:

If it is assumed that such behaviour had considerable time-depth, and that its practice declined within the period for which we have ethnographic data (helping to explain their rarity), there is reason to question whether such rituals contributed to a subsequent (evolutionary) development of beliefs in which [ritual functionaries] came to be associated with animals.

Discussion

In the context of the current study, the following statements express concepts related to the EDH.

1. The use of skin disguises was associated with the ability to exploit curiosity behaviour in antelope, as depicted in the painting at Fulton's Rock (Fig. 4), shown here alongside a photograph of an antelope displaying PCB. An ORP 3 therianthrope (Fig. 6; Thackeray 2023) is reminiscent of PCB in that the antelope is looking towards the observer of the art (*en face*).

2. The ability to stimulate an antelope to walk towards a disguised hunter (SCB) came to be perceived in terms of 'supernatural potency' of the kind known by San as *n!om* (Marshall 1969: 350; Lewis-Williams 1981b), accessible to individuals such as Tano-!khauken,

who wore a skin cap made from the head of a springbok, which would 'let the springbok come to her that she might eat springbok' (Bleek 1935: 45). The Fulton Rock painting (Fig. 4), although interpretable at least in part in terms of the use of a skin disguise, has been interpreted in a trance-related context (Lewis-Williams 1981b).

3. The ORP 2 therianthrope represents an individual under the actual head and skin of an antelope, corresponding to the use of an actual animal head and skin of the 'buckjumper' photographed at Logageng (Thackeray 2005). Two sticks represent the forelimbs of a quadrupedal antelope. In terms of the EDH hypothesis, such skins and sticks used in a bending-forward posture were associated not only with hunting disguises but also with rituals (Thackeray 2023).
4. The use of two sticks to represent the forelimbs of an antelope in hunting disguises, and the adoption of skin camouflage, were perceived as analogous to the anatomy and 'disguised' appearance of a praying mantis (Figs. 1 and 2). Anatomically, the humerus of ORP 2 at Medikane appears to correspond to a mantid's foreleg coxa, and the radius/ulna of ORP 2 appears to correspond to a foreleg femur. The two sticks carried by the therianthrope correspond potentially to foreleg tibiae.
5. ORP 2 at Medikane (Fig. 1) and a 'human' figure (OS 1) at Orange Springs (Fig. 3) adopt a posture that is allegedly known as 'the mantis' (cf. Wilmsen, pers. comm. to Lewis-Williams 1981a).
6. San words for mantids relate to dreams and trance

(Thackeray 1988). As noted above, one term for a mantis is /Kaggen, a prominent supernatural agency in San beliefs (Bleek 1924). /Kaggen [Cagn] was mentioned by Orpen's (1874) informant (Qing) when the latter was attempting to explain the Medikane painting (see below). This is an extremely important indication of an association between a mantis (/Kaggen) and the Medikane therianthropes, including ORP 2, which has been compared to mantid anatomy (Figs. 1 and 2).

7. It is hypothesised that the use of sticks and animal skins as suggested by the Medikane therianthropes ORP1, ORP 2 and ORP 3 (Fig. 6; Orpen 1874; Thackeray 2023), and the 'mantis posture' of the OS 1 figure at Orange Springs (Fig. 3), were associated in part with the use of disguises, but were also associated with rituals not only among San but also among Khoekhoe (Jolly 2008) and Bantu-speakers (Jolly 2006; Botha and Thackeray 1987), including trance dances and concepts of supernatural potency associated at least in part with empathetic rituals (ER) related to the principle of so-called 'sympathetic hunting magic' (Reinach 1903; Thackeray 2013, 2019), designated ERT 1 and ERT 2 (Thackeray 2023). Notably, the San informant Qing stated that the Medikane therianthropes were 'men who had died' and who were 'spoilt'. Their 'death' occurred *at the same time* as that of the antelope. Lewis-Williams (1981a) stated that 'death' was a metaphor for trance. Solomon (2008) contended that the Medikane therianthropes were not trance-related. Thackeray (2023) has proposed that the ORP 1 therianthrope (with 'symbolic wounds') related in part to an empathetic ritual (ERT 2) of the kind in which a person takes on the form of an antelope and is symbolically killed in the belief that this will contribute to success in a prospective hunt of that animal (Lichtenstein 1812). This reflects a 'sympathetic' relationship (at the same time) between the hunter and the hunted. As an interpretative possibility (rather than a falsifiable hypothesis), it is proposed that such ERT 2 rituals contributed to the development of supernatural beliefs and art, including ORP 1, which is a therianthrope with symbolic wounds like those on the 'buckjumper' (Fig. 5; Thackeray 2005, 2023).
8. Close attention needs to be given to the word 'spoilt', which Qing used in the context of 'dances of which you have seen paintings'. José de Prada-Samper (2016: 71 in de Prada-Samper et al. 2016) stated that the term 'spoilt' can refer to 'the transformation of an individual into an animal'. 'Spoilt' may also relate (potentially) to a 'sympathetic' relationship ('at the same time') between an individual (a hunter in a 'dancing' ritual during which he adopts the behaviour and appearance of an animal, and is symbolically wounded) and an animal perceived in that ritual. This, in turn, must be seen in the context of another reference

- to the use of the term 'spoilt' recorded by Orpen (1874): 'Qwanciqutshaa saw the Elands running about, frightened at [the] wounded Eland and the assegai that was sticking into it. And he came out and saw his brother and he ...'. Orpen then deletes the subsequent words, notably 'told him how he had been spoilt'. Despite the deletion, this is extremely important because it reflects the use of the word 'spoilt' in the context of a wounded antelope. Just as important are the following words: 'Oh my brother, I have been injured'. This statement confirms an association between the concept of a 'wounded' (cf. injured) hunter and a wounded antelope in the context of being 'spoilt'.
9. Woodhouse (1968) asked the question as to whether ORP 1, ORP 2 and ORP 3 therianthropes represented disguised hunters or 'sorcerers' (cf. 'medicine-men'), but it is not necessarily an either/or conundrum if one recognises that the Medikane scene can be interpreted in a terms of the EDH evolutionary development hypothesis (Thackeray 2023), in the sense that the use of skin disguises by hunters may have preceded the development of beliefs among ritual functionaries. This is at least an interpretative possibility.

Conclusion

It is not claimed that mantids were themselves represented in southern African rock art, nor that a mantis was necessarily central to beliefs associated with the supernatural agency called /Kaggen. However, in light of observations from this study, supplementing those by Schmidt (1973) and Thackeray (1983, 1988, 2005, 2013, 2019), it is formally proposed here as a 'Mantis Hypothesis' that the appearance and behaviour of mantids contributed to the development of concepts associated with the use of disguises by ancestral San populations, and that these concepts became linked to rituals and beliefs associated with supernatural potency and control over animals.

The question is how one might test and falsify the Mantis and EDH hypotheses. The challenge would be to examine many examples of art in datable contexts. Given that *art mobilier* in sealed archaeological deposits is exceptionally rare, the best that can be offered at the present time is to acknowledge that the ideas presented in this study are interpretative possibilities.

In the context of interpretative possibilities, reference can be made to a particular case of a painted therianthrope (*art mobilier*) from the Apollo 11 Cave in southern Namibia (Wendt 1976), dated to about 30,000 years before the present (Vogelsang et al. 2010). It depicts a quadruped with human hindlegs and an antelope head with long horns. In principle, this could reflect the vestigial use of hunting disguises. However, the slab of rock on which it has been painted has been broken and 'punctured' (Rifkin 2016), as if to represent symbolic wounds, cf. 'empathetic' ERT Type 1 rituals of the kind associated with the principle of 'hunting

magic' (Lebzelter 1934). The Late Pleistocene therianthrope at Apollo 11 can be considered (in terms of an interpretative possibility) analogous to ORP 1 at Medikane, in that both reflect a coincidence between a vestigial hunting disguise and an ERT 1 ritual.

ERT 1 rituals should not be excluded as a factor in the development of concepts expressed in at least some southern African rock art (Thackeray 2023). Notably, the red paint on the ORP 1 therianthrope has apparently (in places) been pecked off the body (cf. 'symbolic wounding'). This is indicated by white patches in a photograph on the cover page of the book *'On the trail of Qing and Orpen'* by de Prada-Samper et al. (2016). I consider (as an interpretative possibility) that most, if not all, of the white patches represent the positions of deliberate pecking off the red body of the therianthrope, rather than natural exfoliation. Similar white patches (cf. 'symbolic wounds') are found on the adjacent ORP 3, perhaps again reflecting an ERT 1 ritual. It would seem not improbable that the paint removed from the painting (by 'pecking' at the art) may itself have been imbued with supernatural 'potency' (e.g. *n|lom*).

In conclusion, in the early 20th century, prehistorians such as Henri Breuil were inclined to think that at least some Upper Palaeolithic paintings in Europe, or Late Quaternary art in Africa, could be explained in terms of the use of disguises or the principle of 'sympathetic magic'. Such views were discounted by Lewis-Williams (1981), among others, in the late 20th century. My own research contends that, in the case of rock art such as the Medikane therianthropes (Figs 1 and 6), one must seriously consider integrating concepts of ritual with (perhaps vestigial) aspects of the use of disguises (e.g. ORP 2 in Fig. 1) and the principle of so-called 'sympathetic hunting magic' (e.g. ORP 1 with 'symbolic wounds' in Fig. 6) within the context of Empathetic Rituals Types 1 and 2 (Thackeray 2023).

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