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# WORDS FOR GEMSBOK AND POTENTIALLY RELATED CONCEPTS, WITH REFERENCE TO SOUTHERN AFRICAN ROCK ART

**Francis Thackeray**

**The potential of linguistic evidence** in attempts to identify conceptual associations among the San has been recognised by David Lewis-Williams (2020). He states: 'We cannot be satisfied with only the superficial denotations of San words (e.g. |*Xam San: sā* = eland): each San word brings with it a cloud of associations and contexts'.

*Fig. 1: The gemsbok with long horns and prominent facial markings (photo Brigitte Senut)*

In this article I explore San words for the gemsbok hippotragine antelope (*Oryx gazella*) (Fig. 1), supplementing my earlier studies (Thackeray 2005) of terms for roan (*Hippotragus equinus*) that also has long horns and prominent facial markings. Both are large and highly aggressive when wounded. The methodology on which this study is based has been outlined previously (Thackeray 1994) and is summarised below.

**Methodology**

The approach begins by collecting words for a particular animal, followed by the compilation of words of the same or a similar form in the same language or in languages spoken in the same general area. By invoking the process known as semantic shift (Arlotto, 1972), these words are then explored to hypothesise the context in which a conceptual association may

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have developed. Examples are given to demonstrate the exploratory approach.

In isiXhosa we have the word *igusha,* which is known historically to have had three meanings: (1) sheep, (2) cloak and (3) a concealer. Semantic shift has been invoked, recognising that sheep skins were used as cloaks to conceal thieves stealing sheep in the Eastern Cape in the 19th century (Thackeray 1994). This is an excellent example of polysemy.

In addition, we can examine the following example, noting the dual sense of the San word *ǂkoúken-khwi* that refers to (1) an eland and (2) the lashing of a tail. There is a context for a hypothesised conceptual association: eland mating behaviour and a girl's puberty ritual (Lewis-Williams 2020).

A further example is provided from the meaning of words in South African Bantu languages incorporating the common form *hlaba* meaning (1) roan antelope, (2) making a mark, (3) stabbing and (4) wounding. This set of meanings is related to words associated with the common form *kwala,* referring to (1) roan, (2) writing (making a mark), (3) engraving and (4) rock engravings. The context of possible associations has been discussed in my paper entitled 'The wounded roan: a contribution to the relation of hunting and trance in southern African rock art' (Thackeray 2005).

San terms for gemsbok and other words examined below have been defined in Bleek's (1956) *A Bushman Dictionary.* For purposes of this exploratory study, I do not indicate specific San languages but work under the assumption that conceptual associations developed among interacting human populations, episodically expanding and contracting in their distributions in response to climatic and habitat changes, through long periods of time and over wide geographical areas within the last 100 000 years, the period within which 'anatomically modern' *Homo sapiens* evolved.

When one examines modern northern and southern San words, for example, one must recognise that the ancestral population groups who used them might have had wider (more continuous) distributions than those of their (relatively isolated) descendants. This would explain why conceptual associations may still be recognised semantically over wide areas, despite the relative isolation of recent populations whose languages are currently classified as being distinct. Words are like fossils, hence the expression 'linguistic palaeontology'.

The term San is used here as an all-embracing term, recognising that there are not necessarily clear boundaries between languages spoken by people who interacted in recent centuries and in the distant past. It must be noted that San interacted with Nguni Bantu-speakers who (1) use clicks in their languages, (2) who are distributed where rock art is common and (3) whose L1 DNA haplotype corresponds to that of San. *A Bushman Dictionary* is used in this exploratory study of San terms for gemsbok because it includes words from languages that are now extinct.

**San terms for gemsbok and potentially related concepts**

The following words have the common form !*gwe*:

- *!gwe* gemsbok (with prominent facial marks)
- *!gwe* picture (art)
- *!gwe* letter

On the basis of the common form and stimulated by the exploratory ideas of Lewis-Williams (2020), one may hypothesise a possible context, namely associations between gemsbok, facial marking and marks in art ('pictures', either paintings or engravings). An example of the use of *!gwe* is 'the Bushman's letters are in their bodies'. From this one may suggest a context: facial marks on gemsbok and scarifications or painted stripes on the faces or bodies of people were perceived to be analogous to writing ('letters') and art ('pictures').

A San informant named *|Han‡kass'o* stated the following (extract from Bleek and Lloyd MSS, VIII.18.7608, quoted by Lewis-Williams 2020):

> 'Little girls they said, one of them said,
> "It is *||hara*, therefore I think I shall draw a gemsbok with it".'

*||hara* is a word for haematite, one of the components of rock art. In this important San narrative, we have a clear conceptual association between the pigment, the gemsbok and art. The same narrative has been discussed by Lewis-Williams (2020) with reference to facial marking, both on gemsbok and on girls at the time of puberty rituals.

Incidentally, the term haematite is derived from the Greek word for blood on account of its red colour. A conceptual relationship between 'red' and 'blood' has been reported by Zubieta (2006) in the context of a study of rock art in Malawi related to female puberty rituals. How (1962) documented the combined use of antelope blood and haematite (especially the highly prized specularite) as material for the production of rock art. Specularite is also known to have been used as a cosmetic, mixed with fat and smeared over the body (Thackeray et al. 1983), as follows:

- *|xa* gemsbok
- *|xa* smearing
- *|xau* smear, as in 'smear heads with fat'

*|xau* is the name for a 'hill' called Brinkkop. This is similar to 'Blinkklipkop' which is a koppie with shiny specularite mined for long periods in the Northern Cape. Its archaeological deposits date to at least 800 AD (Thackeray et al. 1983). Stone artefacts can be associated with San populations (interacting with

SeTswana speakers and Khoe). The dual sense of the word */xa* (gemsbok and smearing) is likely to reflect conceptual associations of the kind reported above in the context of the word ||hara.

The following set of words is associated with the form */ko*:

- */ko* gemsbok
- */ko* face, forehead, as in 'cut on forehead'
- */koija* scar, tattoo (as in scarification)
- */kom* cut skin, scrape
- */kom* rub
- */kodee* pattern

The common form */ko* is hypothesised to reflect associations between (1) facial marking (cf. application of haematite with fat ('rub')), (2) art (cf. 'pattern' and 'tattoo'), and (3) scarification (cutting and marking on the body, which is an act of drawing blood).

Citing Bleek (1936), Lewis-Williams (1981: 61) noted that San used not only scarifications *'*to ensure success in the hunt' but also that hunting success was *'*the purpose of their own scarifications*'*. Essentially this reflects the principle of so-called sympathetic hunting magic (Thackeray 2005) or empathy (Thackeray 2019) as expressed in art such as a gemsbok therianthrope and the scarified/ marked/ striped 'White Lady' hunter in Namibia (Thackeray 2013).

*/xa* is a word for gemsbok and */xanni* expresses the following: (1) book, (2) paper, (3) needle and (4) awl. From these words one may hypothesise the following possible associated context: the use of a sharp, needle-like object, an awl or some form of 'marker', as instruments for creating images (piercing, scarifying, scratching, engraving or 'writing') on surfaces such as skin or rock, if not also on paper as in the case of a book. This resonates with the previously cited terms associated with the form *kwala*: (1) roan, (2) engraving, (3) writing (cf. making a mark) and (4) rock engravings (Thackeray 2005).

The following set of words have the form *!kai:* (1) gemsbok, (2) to scratch (cf. engraving or making a mark) and (3) to strike, to hit (cf. to wound). In this instance, the hypothesised context is analogous to the meanings of words associated with *hlaba* (roan, wounding and making a mark) and *kwala* (roan, making a mark/writing/engraving/art).

**Discussion**

Noting Lewis-Williams' (2020) references to haematite in the context of gemsbok and San, it is plausible to hypothesise that a conceptual association existed between facial marks on a gemsbok and marks on the faces of people who made use of haematite applied to the skin.

From this and my study of 2005, it is proposed that beliefs associated with gemsbok, as well as roan, contributed indirectly if not directly to the development of art (paintings and engravings) through time. In particular, it is suggested that 'making a mark' was associated not only with body-marking (scarification and/or the use of haematite) but also with wounds and rock art. This is compatible with interpretations of a gemsbok and the gemsbok-therianthrope in the 'White Lady' panel (Thackeray 2013, 2018, 2019). It is also compatible with the 20th century 'symbolically wounded buckjumper' (under the skin of a roan antelope, with painted stripes probably representing wounds) photographed in the Northern Cape (Thackeray 2005). The latter is remarkably similar to the symbolically wounded therianthrope in a trance-related painting at Melikane in Lesotho (Thackeray and Le Quellec 2007).

A therianthrope with slightly curved horns like those of a gemsbok was painted on a stone slab at Apollo 11 in Namibia (Fig. 2), which was discovered in deposits dated circa 30 000 years BP (Wendt 1976). It has been suggested that this image, broken in two pieces and with pecked marks on part of the body, was 'symbolically wounded' and associated with the

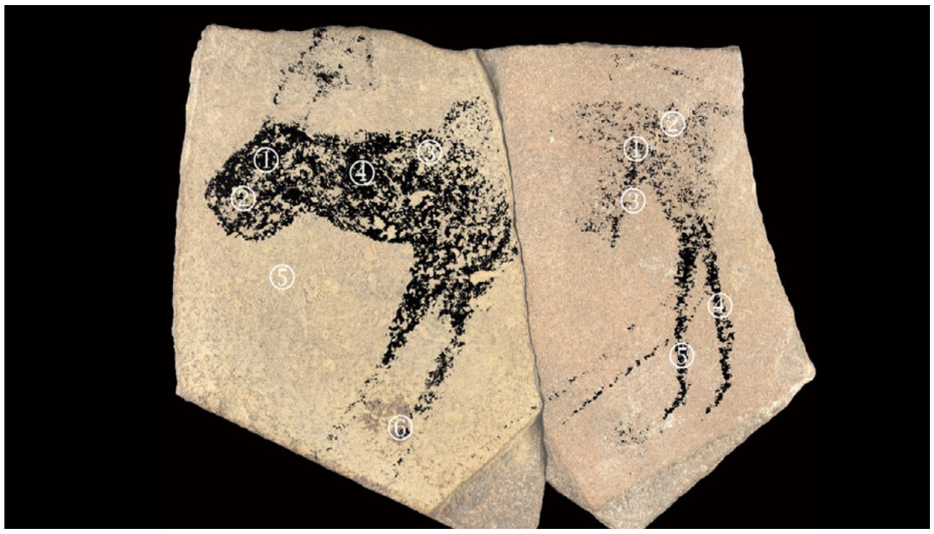

*Fig. 2: 'Gemsbok therianthrope' painted on a stone slab broken in two parts from the Apollo 11 Cave, Namibia (Wendt, 1976; Rifkin et al. 2016). Note the long, curved horns such as those of a gemsbok. The hind limbs are human. Dated circa 30 000 years BP. This image has been enhanced in contrasting colours of black and white, courtesy of Riaan Rifkin*

principle of so-called 'sympathetic magic' (Thackeray 2005, 2013, 2019; Rifkin 2015). This and other examples of art mobilier from the site were associated with ochre (cf. 'symbolic blood') and other pigments (Rifkin et al. 2016). Ochre has also been detected on a 'symbolically wounded' zebra engraved on a broken slab of rock from Holocene deposits (circa 4 000 years BP) at Wonderwerk Cave in the Northern Cape (Thackeray 2005, 2019).

At Blombos Cave, Chris Henshilwood et al. (2009) discovered small slabs of ochre with engraved stripes from deposits dated to circa 100 000 years BP. Thackeray (2010) stated that 'It is interesting to speculate as to whether these engraved lines were conceptually associated with wounds, and whether the ochre powder resulting from the incisions was symbolically associated with blood and concepts of control'.

As discussed by Thackeray (2017), Nguni words incorporating the common form *-da* relate to the following concepts: rock art (*-daliwe*); age and antiquity (*-dala*); to make or create (*-dala*); anything made by man, e.g. a work of art (*-dalo*); a very sharp-pointed stick with which to make a mark (*-dalu*); to scratch, cut into, to make stripes (*-dalula*). Very important in relation to this study are the concepts of a wound, line, stripe and mark, all of which are expressed just by *-da*. Also of interest are *-daka*, referring to clay or sediment applied to a person's skin and to being dun in colour, which can be red or brown. Most important is a Xitsonga word for the reddish-brown coloured roan antelope, *ndakadzi* (Roberts 1951; Thackeray 2005).

At least as a hypothesis one can suggest that the common form *-da* in these words relates to conceptual associations that developed in prehistory in the context of rituals and rock art in southern Africa. As I have said earlier, 'Stripes, painted lines, incisions or engravings may be conceptually associated with wounds' (Thackeray 2017). These are at least the *kinds* of associations that may have extended back to a time when incisions were made on ochre slabs at Blombos and when ochre was mixed in perlemoen shells (possible 'cosmetic kits') 100 000 years ago (Henshilwood et al. 2011).

## Conclusions

It is proposed here that gemsbok and roan were perceived as analogous animals in semi-desert areas or woodland savanna respectively. Conceptual associations relating to these antelope and the extinct bluebuck, *Hippotragus leucophaeus* (formerly distributed in the southernmost latitudes, including the region around Blombos), may have considerable time depth in African prehistory. Middle (MSA) and Later Stone Age (LSA) hunters were familiar with these animals since fossilised remains of gemsbok and roan have been identified from cave deposits such as Apollo 11 and Wonderwerk respectively (Thackeray 1979, 2015), while the bluebuck is represented by fossils at archaeological sites in the southern Cape (e.g. Faith and Thompson 2013).

The act of wounding (drawing blood) is an act of making a mark, potentially related to the development of beliefs associated with art, including both paintings and engravings in which 'symbolic wounds' (even just lines) are represented. As such, in an evolutionary perspective, I propose that the conceptual associations hypothesised in this exploratory study relate in some way to the origin(s) of art in southern Africa within the past 100 000 years.

This line of thinking supplements the kind of ideas currently being explored by Pieter Jolly (pers. comm., February 2021). He suggested to me, inter alia, that 'the reported practice by San women from the Kalahari of making patterns in blood from a killed animal on their bodies might be an ancient practice – possibly one that even constituted the origin of art. He acknowledged however, that since body marking/painting of this kind is ephemeral, we will never know how old such a practice might have been.

The act of 'painting' a body/faces with blood or haematite ('blood stone') and the act of scarification (drawing blood, cf. symbolic wounding before a hunt) are thus potential precursors to the act of painting or engraving rock surfaces. This hypothesis can be assessed in the context of the common form *-da* in words listed in this study, referring to the following concepts: substance applied to a person's skin; reddish in colour; a line, stripe, mark and wound; to scratch, cut into, to make stripes; rock art; age and antiquity; to make or create; anything made by man, e.g. a work of art.

It is appropriate to end this article by quoting Professor Louis Maingard (1934) from his article on 'The linguistic approach to South African prehistory and ethnology'. He wrote, 'We have had, so to speak, to pick up the remnants of old prehistoric linguistic usages and to gather together the fossils of vocabulary … Skeletal fossils, stone implements and rock paintings exist and they convey a very great deal of information to the initiated, but they do not tell us the story as fully as our words, when these are properly questioned'.

**Acknowledgements**

I thank Peter Knox-Shaw, Janette Deacon, Pieter Jolly, Peter Mitchell, Justin Bradfield, Riaan Rifkin, Nigel Bennett, Tim Jackson, Brigitte Senut and anonymous commentators who have contributed to this article in various ways. I am grateful for the opportunity to have explored linguistic data during a PhD programme in anthropology at Yale 40 years ago. I became a 'linguistic palaeontologist' encouraged by the late distinguished comparative linguist Isidore Dyen.

*Continued on page 23*

# THE SPRINGBOKOOG ELEPHANT ENGRAVING

## Celebrating the birth of a new rain animal

**Andrew Paterson**

**A remarkable elephant engraving** is located on a farm called Springbokoog, situated north-west of Van Wyksvlei in the Carnarvon District. The area was known to colonial Dutch farmers as Olifantsvlei and was then situated on the Olifantsrivier. The river drained north-westwards to the huge dried up salt lake called Verneukpan. This unique drainage feature is estimated to have been 57 km long and 11 km wide. From the engraving (Fig. 1) it is obvious that the area must have been inhabited by elephants and San hunter-gatherers in precolonial times.

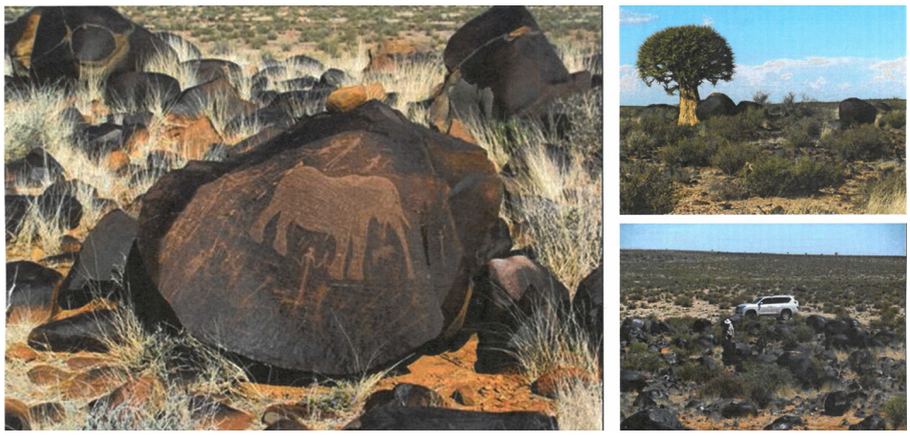

*Fig. 1: The engraved elephant boulder at Springbokoog, dolerite boulders and kokerboom*

### The Springbokoog engraving

The elephant engraving appears on a single dolerite boulder 1 m by 1 m in size that is located among numerous other engraved boulders. Together these form the hard cap of the local escarpment on which the Springbokoog fountain is situated. The Strandberg mountains can be seen to the north and the iconic kokerboom trees (quiver trees) are ubiquitous in the area (Fig. 1). The engraving cluster is situated on the highest point of the escarpment to the north-east of the Springbokoog farmhouse and just south of Kokerboompunt.

An interesting aspect of dolerite boulder engraving sites on top of koppies is that because of their high iron content and elevation, they act as earthing points for lightning and attract frequent lightning strikes during rainstorms. The San would have witnessed this on a regular basis, which suggests that the site with its rain and thunder associations would have had ceremonial importance to them in respect of the weather.

The elephant engraving was originally traced by Janette Deacon (Deacon 2005). The detail in this tracing is excellent and accurate and has been used for this analysis and interpretation. The engraving featuring elephants and San people is regarded as a single composition.

### The elephants

The focal point of the engraved composition is two elephants, one large and the other very small, in relative terms. The elephants are standing in a relaxed manner. The large female elephant has a body length of 30 cm and a shoulder height of 31 cm, and is the largest single animal in the Springbokoog cluster of engravings (Fig. 2). It has good proportions and has been massed in by the artist using a fine scraping technique.

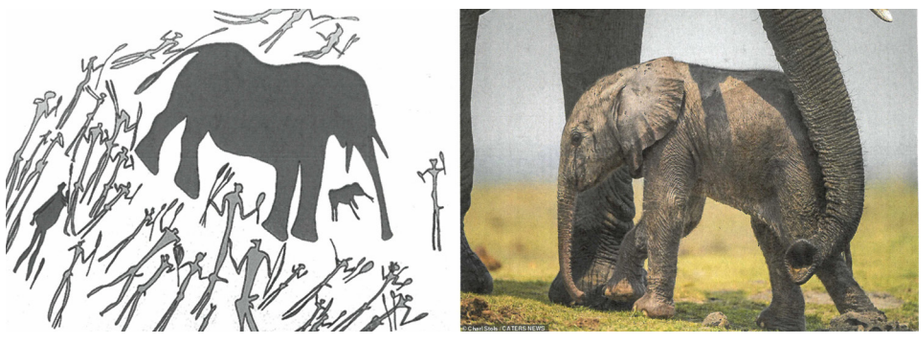

*Fig. 2: The large female elephant with a newly born baby, surrounded by excited San figures*

Andrew Paterson has studied the San rock art of the Cederberg with Prof. John Parkington of the University of Cape Town and the eCRAG rock art group of the South African Archaeological Society under the leadership of Prof. Janette Deacon for over a decade. andypat@iafrica.com.

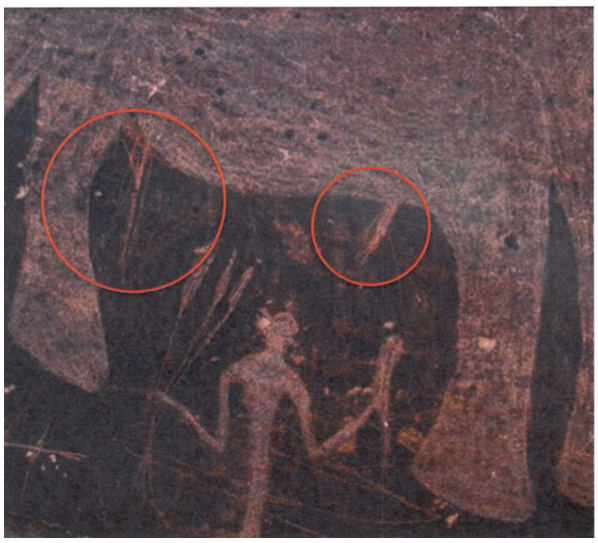

*Fig.3: Deliberate scratch marks where the elephant mother has given birth to and feeds her young*

The small elephant stands in a well-protected position, between its mother's front legs and trunk and directly below her head and tusks. It is important to note that the elephant and calf have not been placed within a larger family unit of elephants, as is often the case with other engravings and paintings. Judging from the size of the calf, and its position relative to its mother leads us to the conclusion that this is a graphic depiction of a mother and calf immediately after birth. A calf of this size would probably have been less than a few hours old (Fig. 2).

**Birth of a baby elephant**

The large female elephant has distinct etching marks (Fig. 3) between its back legs and behind its front legs. It is important to note that an elephant female gives birth between her back legs and has breasts for feeding her young behind her front legs. Interestingly, the breasts of an elephant look exactly like a San female's breasts. These birthing features appear to have been highlighted by the artist in the engraving for a specific purpose.

It is quite possible that the San had recently witnessed the birth of the baby elephant near the Olifantsvlei marsh, alongside its water and reeds. With their intimate knowledge of animal's, the San would have been able to anticipate the birth of the baby elephant. They would have known about the gestation period of a female elephant and that her breasts start to swell noticeably before giving birth. This means that the artist could in all probability have been present at the birth and engraved a realistic birth event from direct observation.

**Arrangement of the San figures**

There is a total of 30 San figures in the engraving (Fig. 4). This is the highest concentration of San figures at the Springbokoog engraving cluster. Of these, 28 have been drawn on the front of the dolerite boulder. The two other figures are positioned on left and right sides of the boulder. The main group of figures is drawn in a tight arrangement around the female elephant and are virtually all within touching distance of one another. From the orientation of their shoulders all figures appear to be facing the elephants. They have their hands raised in the air, suggesting excitement and celebration. This display of excitement is key to understanding the painting. It suggests a special relationship and connection between the San and the elephants.

Importantly, the figures are not arranged in a formal dancing line, such as is found in paintings of initiation ceremonies, or dancing in a circle as in paintings of a healing ceremony. The figures appear to have been arranged in a spontaneous fashion to indicate an impromptu celebration around an unscheduled event. Twenty-nine of the figures are male, with nine of them, judging from their relative sizes, possibly being young boys. Three of the figures are holding bows but no quivers or arrows are visible, which suggests that this is not a hunting scene. The bows are being held symbolically by the men as hunters. One figure, Figure 4 in Fig. 4, appears to be a female. This figure has a different, rounder body and breasts.

**The engraving sequence**

It is important to note that because of the size and position of the boulder on the ground, the artist would have had to execute the engraving either sitting or even lying down when creating the this extremely fine work of art. In addition, the engraving would have required considerable skill and time to achieve such fine detail.

The composition suggests that the large elephant was engraved first, followed by the baby elephant, both of which are the focal point of the engraving. The San figures were then engraved, starting with those closest to the elephants (Figure 3 in Fig. 4) and working back to those on the perimeter. Figures 1 and 2 in Fig. 4 were probably engraved last as they appear as though they are on the sides of the boulder. This gives the engraving an interesting 3D-effect, with the

latter figures seeming to join the group later than the others and with Figure 1 in Fig. 4 bringing six hand-held objects for the other San.

**The objects being held by the San**

One of the striking features of this engraving is that 24 of the San in the engraving are holding what has been described by earlier researchers as flywhisks, spears or ostrich feathers. Most of the figures are holding between one and three such 'flywhisks'. On close inspection, these items being held do not have the characteristics of flywhisks since these are made from animal tails and would normally hang down. The objects being held were obviously very import and relevant to this specific occasion. They had to be light enough for the San to have been able to hold up to three in one hand. Spears would have been too heavy and ostrich feathers do not have long stems.

**Bulrushes**

From the shape of the objects being held, the first thing that comes to mind is that they could have been some type of plant, and the bulrush seems a good choice. Van Wyk and Gericke (2000) describe the bulrush, *Typha capensis*, as a 'well-known plant of wet places with many traditional uses' (Fig. 4), and provided the following description:

'The bulrush is a well-known plant of wet places, with ribbon-like leaves and characteristic flower heads. The plant occurs over large parts of Southern Africa and has many traditional uses. The fleshy spongy rhizomes are dug up and may be pounded to a meal and used as a source of starch. The pollen may also be used as a high-protein food. The rhizomes are widely used in traditional medicine, mainly to enhance fertility and potency, to improve circulation and to ensure easy delivery. The rhizome, taken in the form of a porridge prepared from the infusion, is taken for menstrual pain and for any pain in the uterus. An infusion of the rhizome is given to strengthen contractions during labour, and to expel the placenta in humans as well as animals. Infusions and decoctions of the rhizome are used as male sexual tonics and to improve the circulation.'

From this description, it is difficult to imagine a more appropriate 'symbolic plant' for San to be carrying at the time of celebrating the arrival of a new-born elephant calf. Apart from the fact that one can easily hold three bulrushes in one hand, as depicted in the engraving, they would have been readily available in the Olifantsvlei near where the birth probably took place. The bulrush with its wide-ranging and appropriate female medicinal uses relating to fertility, potency and male sexuality pulls together the various elements of this engraving into a single entity.

**Rain symbols, water, lightening, thunder and rain animals**

On close inspection of the engraving one can see a multitude of long, thin scratch marks randomly superimposed on the elephants and San figures. These have been regarded by previous researchers as being some form of graffiti made by colonialists at a much later date. An alternative interpretation, I believe, is that these lines were actually an integral part of the composition and were intentionally superimposed on the elephants and San figures by the artist as a symbol of rain.

The 'rain' scratch marks could have been made with a sharp piece of flint or chert by dragging it across the face of the boulder in long diagonal strokes. It is also possible that the marks were made with an arrowhead. We have found rock art paintings in the Cederberg, at Zuurvlaakte for example, with similar long 'rain cutmarks' made with red ochre stones. These were also referred to as graffiti by earlier researchers. These lines are now considered to be symbolic rain marks. Painted rain-making sites with elephants and San have been found at numerous other locations throughout the Cederberg, for example at Rietvlei, Salmanslaagte, Truitjieskraal and Zuurvlaakte (Fig. 5) (Paterson and Parkington 2016; Paterson 2018).

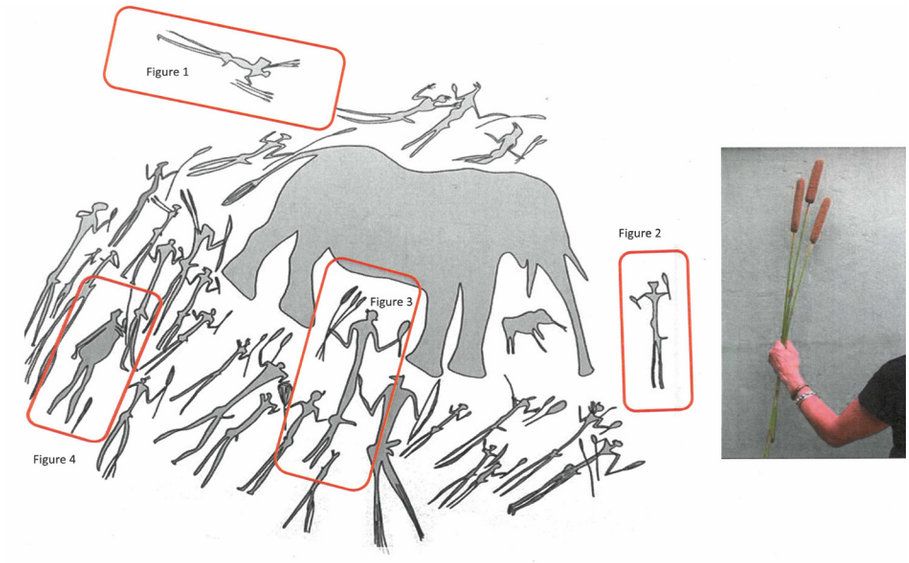


*Fig. 4: Celebrating San figures surrounding the elephants holding bulrushes, which are symbolic of fertility and birth*

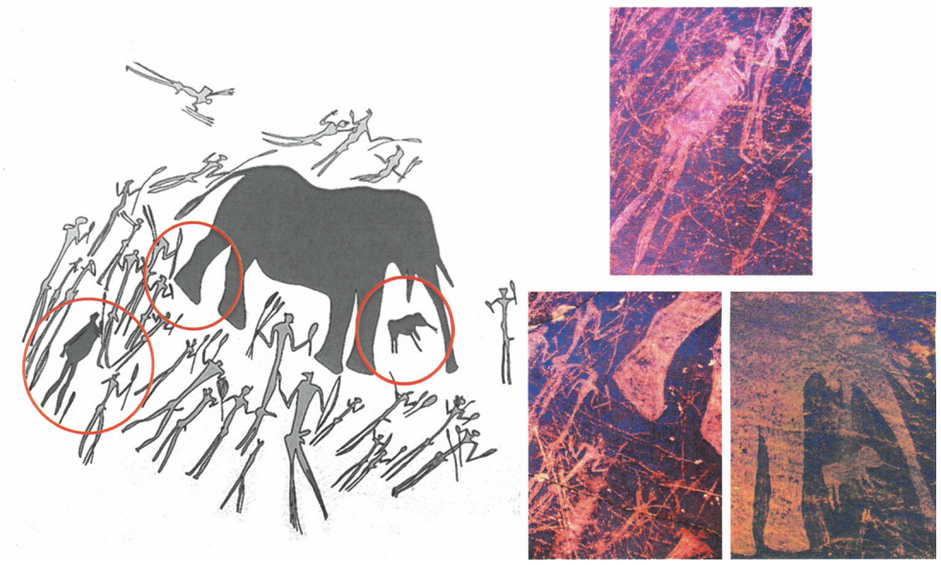

*Fig. 5: Long scratch marks across the entire engraving are symbolic of rain*

There is a painted rock art site at Zuurvlakte over 800 km away from Springbokoog that has an almost identical composition to the Springbokoog engraving, namely a large elephant with a very small elephant in front of it, suggesting birth, and surrounded by numerous, excited, male San figures. Adjacent to the elephants are two large eland antelope, with a single female rain symbol superimposed on both.

Elephant engravings have been identified at numerous other locations in the Karoo (Parkington 2008). On top of the Strandberg plateau, directly north and in sight of Springbokoog, there is an engraving of a female elephant family unit on a large dolerite boulder, while at Noupoort there is a large rock gong with an engraving of two elephants directly below it. This leads us to think that low frequency sounds and the associated vibrations that travel long distances appear to be related to elephants and rock gongs as well. As mentioned earlier, Karoo koppies capped with dolerite boulders associated with rain, lightening and the low-frequency sound of thunder are a favoured location for San elephant engravings.

The choice of elephants in engravings is significant to our understanding of the artists' intent. It is well known that elephants are intimately associated with water. An adult elephant needs 65 l to 95 l per day. They live and feed in wetlands and swamps whenever they get a chance. Moss (1988) records that 'calves joined the adults, who were moving deeper and deeper into the swamp. There the elephants found grasses, sedges, including papyrus and succulent creeping herbs'. Olifantsvlei would have been an ideal environment for elephants.

Elephants can detect thunder and the presence of rain over 200 km away, which is probably why the San regarded them as rain animals. Elephants are also intimately associated with water and rain in San mythology. According to the Lucy Lloyd |xam notebooks (1872) (Bleek and Lloyd 1880), 'the San rainmaker is asked to milk a female rain. For I will cut a she rain; that has milk … that I might milk her … one who rains soft on the earth … that the earth may be wetted deep in the earth inside'.

The rain symbol with long scratch marks superimposed on the elephants and people, and the short scratch marks over the female elephant's birth canal and breasts (Fig.3) meant that the artist was creating an engraving that alluded to the connection between rain and birth, and to the San rituals of cutting and milking the rain animal during a rain ceremony.

**Conclusion and interpretation**

The Springbokoog engraving, I believe, is a single composition, which, together with its locality, is intimately connected with rain and water in many ways in the mind of the San. As a symbolic rain animal, the elephant was used in rain ceremonies and frequently referred to in San mythology: 'The elephants were people of the early race, and they were the ones who found water so that the San could drink' (Biesele 2009). According to ethological and ethnographic research records, rain is intimately linked to both elephant and San seasonal procreation behaviour.

I believe that the purpose of this engraving was to awaken and transmit *n/om* within the San audience looking at the engraving, which results in a revitalisation and healing of the entire community, giving new hope for the future (Keeney and Keeney 2015). I believe that the excited dancing figures surrounding the mother and baby elephants, is an embodiment of the *n!o`an-ka|`ae* changing concept of the San that underlies the circularity and changing of creation (Keeney 2015). Any future San visiting or dancing at this site would use the engraving as a way of receiving *n/om* and would again be able to celebrate the changing concept and the circularity of creation.

I believe that the engraving therefore reflects the following three fundamental San concepts:

- The concept of *n!ao,* which links men and women's great procreative powers, namely childbirth and hunting, to the vitally important polarities of the weather and rain (Biesele 1993).

- The concept of *n/om*, which is a vibratory life force that comes directly from God, is recognised by the San to animate all living beings and to be the source of all inspired energy (Keeney and Keeney 2015).
- The concept of *n!o`an-ka|`ae,* which is the 'force constantly acting on everything to make it change'. This force is regarded by the San as 'the secret of creation' and procreation (Keeney and Keeney 2015).

These three inherited cultural concepts are abstract ideas that occur in the mind, speech and thoughts of the San. They play an important role in all aspects of San cognition, mental activity, the acquisition of knowledge and understanding. The concepts are the building blocks of the San's unique culturally based belief system. This elephant engraving can therefore be regarded as a *group-oriented symbolic expression* of these three cultural concepts.

Finally, recent research suggests that culture has influenced how humans survive and evolve for millennia. The combination of both culture and genes has fuelled several key adaptations in humans, such as reduced aggression, cooperative inclination, collaborative ability and the capacity for social learning. Culturally organized groups propel adaptations, such as new cooperative norms and social systems, that help groups survive better together (Waring and Wood 2021).

I believe, that this engraving of the basic unit of elephant society, namely a mother and baby, surrounded by a group of 30 San figures (Figs. 1 and 2) has encapsulated the three fundamental San cultural concepts that have played a central role in their survival over the millennia.

**Acknowledgements**

My thanks to Dr Janette Deacon for introducing me to this remarkable engraved site.

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## ARCHAEOLOGY IN BRIEF

**Dutch museums vow to return looted art**

Thousands of pieces of art deemed looted by Dutch colonialists could be returned to their country of origin after the Netherlands' most famous museums backed a report proposing a wholesale 'recognition and rectification of these injustices'. The directors of the Rijksmuseum and Tropenmuseum in Amsterdam said they would support a proposal for a legal structure for the return of an estimated 100 000 pieces where a claim for restitution could be made, with the emphasis on return where 'involuntary loss' is identified. Among the exhibits cited by the report from the Dutch Council of Culture as needing examination is a 70-carat diamond that belonged to the Sultan of Banjarmasin and was sent to the Netherlands after his land, now part of Indonesia, came under Dutch control at the end of the 19th century. Taco Dibbits, director of the Rijksmuseum, said his institution was already working on identifying the genesis of its collection.

*Het Parool, 08/10/2020*

**5 000-year-old metropolis found in Israel**

The ruins of a 5 000-year-old megalopolis were uncovered in northern Israel. The ruins were exposed in a major excavation project in the Ein Assur site near Harish. The fortified city was the largest in the area during the Bronze Age with about 6 000 people inhabiting it, a huge number for the time. The city was founded about the same time the first pharaoh established his rule over Egypt, according to the Israel Antiquities Authority. The location offered exceptionally good conditions to settle, such as sources of water and strategic proximity to the ancient commercial routes. The ruins clearly show a web of roads and alleys, as well as the design of the buildings. Among the most interesting structures uncovered was a temple. A seal imprint of a stylised man raising his hands in prayer and a head figurine were found at the site. The excavations have also revealed that 2 000 years earlier a village stood on the same site.

*Jerusalem Post, www.jpost.com.*

# WORLD ARCHAEOLOGY

**New Neolithic hill sites found near Göbekli Tepe**
Eleven more hill sites are claimed to have been discovered in a 100 km radius around Göbekli Tepe, the world's oldest prehistoric stone monument site. A major study is said to be on the verge of completion. If these new sites are on a par with the spectacular remains uncovered at Göbekli Tepe, their discovery would represent a significant milestone in prehistoric archaeology in the Mesopotamian region.

First unearthed in 1995 by German archaeologist Klaus Schmidt, the Neolithic site at Göbekli Tepe has produced the most stunning and impressive collection of standing stone monoliths found on earth. The biggest are as tall as 6 m and are estimated to have a mass of between seven and ten tons. They were arranged in large circles, with a pair of heavy T-shaped pillars placed in the centre of each arrangement. Some were decorated with carved images of animals and others with obscure shapes and images that have no clear real-world references.

Neolithic hunter-gatherers built and inscribed these stone circles over a period of perhaps 1 000 years. The oldest construction work at Göbekli Tepe has been dated to about 9 000 BC, before crop cultivation began.

This feat was accomplished by individuals who had no access to metal tools or wheeled transport. They used stone/flint hand tools to carve out and shape huge slabs of limestone from nearby quarries. In some instances, the builders placed the circles alongside each other. In others, they put them one on top of the other, after the previous circle had been buried. Sometime after construction stopped, the entire complex was buried, creating a low-topped artificial mound 15 m high and 300 m in diameter.

Archaeologists have already found other sites in the region where stone pillars carved out of quarries have been arranged in standing circles. None of the other sites are as ancient as Göbekli Tepe, but they all feature the distinctive T-shaped central pillars. This suggests they all were created by the same stone-monument-building culture. The consensus is that Göbekli Tepe was a religious or spiritual site that was sought out by ancient worshippers looking to commune with their gods or with the spirits of their ancestors.

*Nathan Falde, 29/06/2021*

# '… DO YOU BELIEVE IN *WATERMEIDE*?' STORYTELLING IN THE KLEIN KAROO, LANGEBERG AND OUTENIQUAS, WESTERN CAPE

**Renée Rust**

**The story of water maidens** and their powers in the Klein Karoo, the Outeniqua mountains south of the Langeberg and along the South Coast, embodies a local living legend with roots in the distant past. People living in these contiguous areas were interviewed to record knowledge of numerous beings living underwater who are still 'seen' today near rivers and watercourses. The informants describe them as women with fish tails. These accounts were compared with folklore recorded over a hundred years ago in the Klein Karoo. San rock art of the region includes therianthropic paintings that may represent the sacred personification of water, a spiritual value present in the folklore of the Klein Karoo today, of hallowed water creatures with half-fish, half-human physiognomies.

In 2004, during a survey on local heritage, Hendrik Hefke (Fig. 1), eloquent and animated, seated in an armchair in the sitting room of his home near Calitzdorp in the Klein Karoo, took me by surprise when he asked the rhetorical question, '*… wil jy weet van die watermeide?'* (do you want to know about the water maidens?). This was 129 years after, in 1875, D. Ballot, questioned an elderly San man living near Oudtshoorn in the Klein Karoo, known only as Afrikaander, about whether he believed in *watermeide* (Leeuwenberg 1970).

The myth of living water creatures, a tale similar to that of Afrikaander's, unfolded right there in Hefke's home during our talk and opened up the current reality of an ancient belief. Afrikaander's legendary water maidens share the same physiognomies with Hefke's *watermeide* (pers. comm. 2004). As in the past, the spiritual influence of these water creatures on local communities today is deep-seated and authentic.

The term *watermeid* is not used pejoratively but as a colloquial Afrikaans name to denote a water maiden entity; a combination of 'water' and 'girl', a maiden. The suffix 'e' denotes the plural of the word.

**Perspective**

Cultural concepts are upheld by storytelling, especially by the elders in a community, rather than by literal facts. If the story authenticates the mystique and

*Fig. 1: Hendrik Hefke being interviewed (photo Jan van der Poll)*

connects to the landscape, it stays in the collective memory of people (Biesele 1993). Hendrik Januarie (1989, 2007) (Fig. 2), the poet from Zoar in the Klein Karoo, confirmed that the *watermeide* story is told and passed on to new generations. Topophilia throughout the world has roots in anecdotes and is transferred to things/places in the landscape (Ouzman 1998). A hallowed geography exists where *watermeide* reside. The narrative exposes the imaginativeness, creativity and adaptability of people in their approach to survival and sustainability in the environment, and often reflects in the spirit realm. All these aspects bring to life the legend of the *watermeid*, now and in the past.

Accounts on *watermeide* by nine informants ranging in age from 16 to 86 years, were recorded verbatim over a period of 16 years and were incorporated into my research of rock art over the years (Rust 2008). Some of these verbatim accounts have been published (Rust and Van der Poll 2011; Rust 2016). Further research and accounts recorded have been added to the existing data.

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My informants lived in the region of the Klein Karoo, in the communities of Calitzdorp, Oudtshoorn, Ladismith, Zoar and Amalienstein, in Baviaanskloof on the eastern border and south of the Langeberg near Riversdale, Heidelberg and Still Bay on the South coast, as well as Greyton further south (Fig. 3). A snowball or referral survey method was used for the survey. This non-random technique was aimed specifically at the storytellers and elderly people (Rust and Van Pletzen-Vos 2004). Among the informants were those who either had a personal experience of *watermeide* sightings or who knew of people who had 'seen' or 'still see' these mythical figures at water sources.

The subject matter and the descriptions of the *watermeide* remained similar throughout the research region, although the informants do not know each other in most instances and do not have any knowledge of the documented legend of *watermeide* as told by Afrikaander. The survey on heritage and storytelling was carried out under the auspices of the Department of Geology, Geography and Environmental Studies, University of Stellenbosch (Rust and Van Pletzen-Vos 2004). Permission from the informants to take part in the interviews, to use their names and record information was secured on ethical clearance forms.

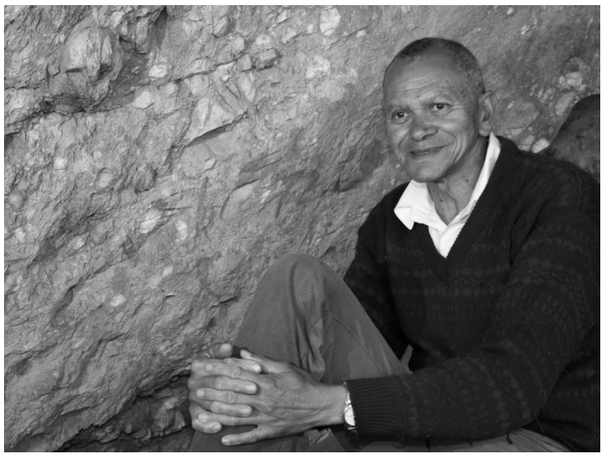

*Fig. 2: Hendrik Januarie, the poet (photo Jan van der Poll)*

**A link to the past in the Klein Karoo**

In the villages of Zoar and Amalienstein, nestled in the Seweweekspoort valley in the Swartberg mountains, continuity of domicile existed in the early part of the 19th century: a history confirmed in situ provided a continuum of autochthonous practices (Uren 2017; Chan et al. 2019). James Backhouse visited Zoar in 1838 and later wrote:

'A fine stream runs at the foot of the Zwartebergen, giving fertility to a narrow chain of lowlands; these are irrigated … containing together upwards of 100 morgens ... a number of huts, forming the village, … is inhabited by from 3 to 400 Hottentots including children …' (1844: 114–115).

The inhabitants of these towns remained relatively isolated for 150 years. Their lineages can be traced back to the time when their ancestors became freed slaves (cf. Rust 2008: Fig. 4.18) following the emancipation of slaves at the Cape in 1834, and continued living on these mission stations (Januarie, pers. comm. 2004). The local communities thus have ties to the distant past when Khoekhoen were living there. In 1875, while recounting the story of the *watermeide,* Afrikaander also made a connection to the nature of his fellow community members by describing his friend Tamboer as a 'Hottentot' (Bleek and Lloyd Collection UCT BC151 F1.16). The term is not held as pejorative here and is used as cited in the historical context of the 19th century. Afrikaander was referring to his friend as a member of the indigenous pastoralists and hunter-gatherers, southern Africa's First People (Barnard 1992), who were then loosely known as 'Hottentots'.

**The living story of *watermeide***

People today firmly believe in the existence and mythical powers of *watermeide*. According to Afrikaander, the death of his friend Tamboer was a confirmation of the existence of *watermeide* (Bleek and Lloyd Collection, the story as told by Afrikaander, transcribed by D Ballot, handwritten on blue writing paper, no page numbers or date, with markings BC151, Jagger Library, UCT; Rust and van der Poll 2011: 96). According to Afrikaander, Tamboer died at the hands of *watermeide* after they had caught him returning home late at night: they allowed the water levels to rise and swamp him as he crossed the river. Today, people, especially children, are warned to stay away from the water sources and rivers where *watermeide* are known to be (pers. comms Hefke 2004 and Sailes 2015).

While noting this element of fear or danger, there are others who do not dread *watermeide*. They find them extraordinary and appealing and describe their encounters as gratifying (pers. comms Fourie 2005, Arendse 2009 and Latier 2019). The *watermeid* is accepted as one of God's creatures (Hefke, pers. comm. 2007). Latier (pers. comm. 2019) confirmed this with the words 'Sy is 'n maaksel van God' (a creation of God).

The myth of *watermeide* remains a constant throughout the research region. The eminent informants recount the existence of underwater dwellings and mud houses located in rivers and waterholes where these half-human, half-fish female creatures live. Unsuspecting people are often lured to the water's edge by a variety of objects floating on the surface, such as flowers, toys and strange objects that people may want to pick up off the water's surface. Jacobs (pers. comm. 2010) spoke of 'seeing' and picking up a handkerchief drifting on the surface when he was pulled under the water. People enticed

in this way and pulled under by the *watermeide* return to describe their watery domain as a wondrous place where people can live contentedly. W*atermeide* are described as beautiful; they appear white and luminous; they 'shimmer' (Magani, pers. comm. 2005). They have long hair. At times, they are dark and ominous (pers. comms Hefke 2004 and Sailes 2015).

Latier (pers. comm. 2019) recounts his experiences with a *watermeid* when he first saw her while fishing at the age of nine. She called him and he describes this as an incredible experience. Her lower body was fish. His grandfather had told him about the *watermeid* and had warned him not to say that he ate fish as she would harm him. He describes this place along the Riviersonderend river as dark and green with dense tree growth. The sighting was like being in another dimension: 'Dit is soos in 'n "swym"' (like being in a coma). You can live with her, breath under the water and return to your family if she wills it. She may fetch you again. 'As sy vir jou kom haal dan kom sy met die water tot by jou huis. Sy sal vir jou terugneem' (When she fetches you, she comes with the water to your house. She will take you back).

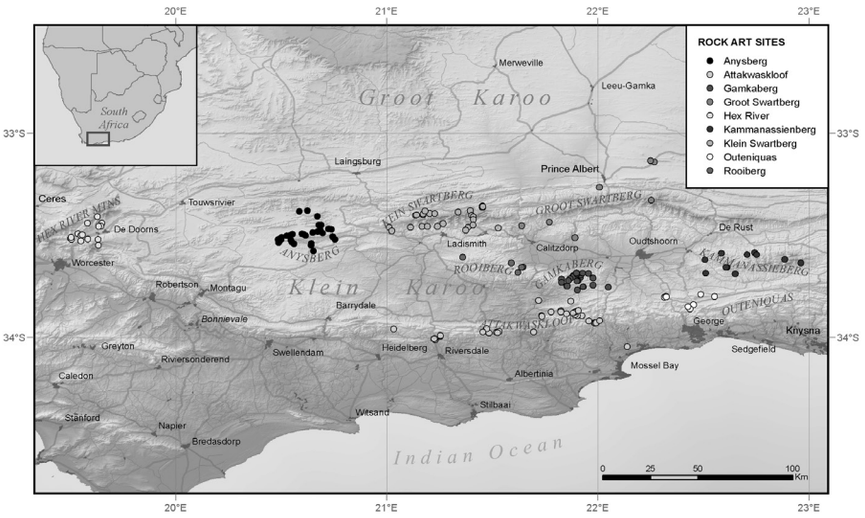


*Fig. 3: Map of the research area and places mentioned in the text (Centre for Geographical Analysis, Department of Geography and Environmental Studies, Stellenbosch University)*

Jacobs (pers. comm. 2010) reported that water in the Goukou river at Stilbaai, where *watermeide* live, remains constant even in drought conditions. They cause a thick mist if they want to 'take' people under the water. Pauline Arendse (pers. comm. 2009) describes these powers: 'Hulle het magte oor water … en eintlik oor die mis …, hulle kan vir jou kom haal in daardie mis ... hulle het sterk magte' (They have powers over water ... and also the mist ..., they wil fetch you in that mist ... they have strong powers). Others reported on the phenomena of murky conditions where *watermeide* are active (pers. comms.: Kleinbooi 2004 and Latier 2019).

W*atermeide* show a fondness for internees and lick the faces of those 'living' with them, leaving white marks on their faces or at times brown spots that cover the body. Jakobs (pers. comm. 2010) reported that he had these marks all over his body as did his mother and grandmother before him, revealing their doings with *watermeide*. Family members had to restrain their feelings and accept that their loved ones 'live' with *watermeide.* Today it is reported widely that when and if the internees return from the watery domain to normal life they are endowed with wisdom and are respected in their communities if this proficiency becomes known. One of the commonalities of the stories is that only certain people 'see' or are 'taken' by *watermeide,* hence their esteemed status when they 'return'.

*Watermeide* may inflict illness if they are angered by not being 'greeted' or customary behaviour not being followed, such as mud being put on the forehead, or a stone or money or alternatively dried herbs such as buchu, *Agathosma spp.,* being thrown into the water (Hefke, pers. comm. 2004). This is the thrust of Afrikaander's account as recorded by Ballot (Bleek and Lloyd Collection, n.d.): unaware that she is near a waterhole where *watermeide* were, a young girl stoops over to pick flowers in the water and is pulled under. Her mother, a clever woman, dries and powders veld herbs that *watermeide* are fond of, throws the herbs over the water and her child returns to her unharmed. The only disagreeable outcome of the encounter were lasting white marks on the girl's cheeks where the *watermeide* had 'licked' her because of their fondness of the girl. Her mother had warned her in childhood not to say that she ate fish as *watermeide* are half-fish, half-flesh.

W*atermeide* control knowledge of plants with healing properties. Infusions and ointments cure blisters, rashes and high fevers caused by the *watermeide.* Kleinbooi (pers. comm. 2005) reported on the use of one such plant, *Berula erecta* subsp. *thunbergii*, a water parsnip (Van Wyk et al. 1997: 58) that treats skin ailments. *Watermeide* had to sanctify its use (Rust and Van der Poll 2011: 102). Hefke (pers. comm. 2004, 2007) underlined the importance of using dried and powdered *buchu* to ensure the safe return of internees. As in Afrikaander's story, it is equally important that the ritual significance of

this herb is adhered to so that it softens any harmful intentions of the *watermeide.*

Magani (Rust 2008: Appendix A), who lives in Baviaanskloof, described water sources where *watermeide* reside as places where water 'is alive'; it shimmers, it can 'stand up' with force. The concept is fluid. Magani (pers.comm. 2005) defined *watermeide* living in such waters as the water itself. The water, he said, takes on the shape of a *watermeid, who* is 'real' and can be 'seen'. *Watermeide* have abilities to transform. When they 'walk' on land they have human legs but back in the water these legs again become fish tails (Jacobs, pers. comm. 2010). Their powers extend to transforming into snakes, but some informants deny this shape-changing as they say that *watermeide* are not evil, which is no doubt a view influenced by Christian theology (pers. comms Arendse 2009 and Latier 2019). Magani (pers. comm. 2005) describes snakes that live with *watermeide* They become these snakes and 'travel' through the sky in a cloud bringing rain and stormy weather.

If a girl is with menses she must not go near the water where *watermeide* live as it annoys them. This aggression results from such a girl's particular harmful potency at the time of menstruation (Kleinbooi, pers. comm. 2004). He tells of water in the river near his home at Zaaimanshoek turning muddy and 'standing up' around a young girl filling a bucket with water. Kleinbooi, aware that she was with menses, relieved her of the bucket, warning her to go away from the water's edge. He 'sees' the *watermeide* at the Sewenfontein water source (Rust 2008: Appendix A). He described the waters as being unsafe, *vuil* (muddy) and hinted at the potency of the *watermeide* that live there. In 1875, Afrikaander warned Ballot not to go near a waterhole where there was a *krantz* (a cliff) as the water is never clear, implying that the water was ominous. The water must not be polluted by human use as *watermeide* will move away (Fourie, pers. comm. 2005).

***Watermeide* as water beings in wider perspective**

Rain and water as entities in southern African folklore take on a female form. In the 1850s, the missionary John Campbell (1872 ii: 31–33) gave an account of Ko, the female San deity, a spirit associated with water and rain, a shinning white deity who lived below the earth and danced with people. The isiXhosa-speaking groups of the Eastern Cape regard water maidens as the water *abantubomlambo*. Prins (1996: 217) describes the water entities as amphibious creatures, such as otters, water snakes, fish and '… people of the river', and points out that they have both human and ichthyoid attributes.

In the Cederberg on the West Coast, similar water creatures are known to 'live' in mountain rock pools (Smit 2006: 20–27). They are female with supernatural powers collectively known as *Waterbas* and are desirable and have long black hair, fishlike lower bodies and 'pull' you under the water. On their foreheads, a bright diamond-shaped light attracts people into deep pools. They cause whirlwinds, mist and floods. The waters around them become muddy, it simmers and appears 'alive'.

In the Northern Cape, 400 km from the Klein Karoo, Johanna Titus of Williston spoke of the *watergees* (water spirit) (Hoff 2011b: 31) and described it as a girl who is 'seen' at times by certain people and appears luminous in the moonlight. *Hoff validated the descriptions of water people 'with tails like fish or snakes* and, … long hair, … [living] under the earth … present from time immemorial; they ate blue mud, crabs, yellow fish and certain roots; … Should they leave the fountain [if water is contaminated], it would rain and the world could be washed away. If harmed they could cause severe rain out of aggression and they or the Water Snake could sweep the culprit away with rain, water and/or wind' (my parenthesis). They are created 'by God' (Hoff 2011a: 32). They transform into *'water snakes that "travel" through the air in a cloud, bringing turbulent weather'* (Hoff 2011a).

Congruent with widespread local belief of the spiritual phenomenon of water to this day, Beesa Boo, a Ju/'hoan Bushman from the Kalahari, told about healers that have a *kabi,* a sacred dream or vision*,* 'see' a big hole underneath the ground, a place with a lot of water that is spirit water and gives them power to heal; it is God's *n/om* water (Keeney and Keeney 2015: 78, 99). The ǁXegwi San in the former Eastern Transvaal held the view that a man had to go into a deep waterhole and 'come up' with a snake if he wants to be a shaman with special powers (Potgieter and Ziervogel 1955).

The Ixam ethnography links femininity to the sanctity of water. In the 1870s, Dia!kwain, the Ixam informant from Katkop in the Northern Cape, warns that maidens have the rain's magic power (Bleek 1933: 297). |haŋǂkass'o, one of the Bleek San informants from Strontbergen, Northern Cape, listed the cobra and puffadder among the rain animals of the southern Ixam rain deity, *!khwa* (Bleek 1933: 303), which is known to transform. *!khwa* is the water itself; waterpools dry up if *!khwa* is angered by a breach in ritual (Bleek and Lloyd L.VI. (2): 4001). Diä!kwain explained that the rain deity, *!khwa:-ka xɔro*, who is seen as a water bull at times, is 'led' out of a deep waterhole by the rain medicine men, the *!khwa:-ga !geitən* (Bleek 1933: 375). They sling a thong over the water bull's horn leading it along. They 'kill' the bull and its blood falls as rain.

|haŋǂkass'o, after perusing a copy of the Ezeljagdspoort paintings, commented on the images and warned of misfortunes if the water's *!khwa's* 'things', which he saw in the paintings, are harmed (Bleek 1933: 303). However, harmony may be restored by buchu that is ground and sprinkled on the water to calm the rain '… because the rain loves buchu very

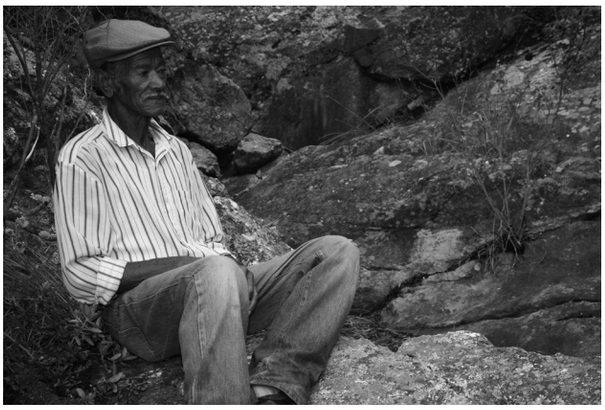

*Fig. 4: Maans Fourie 'sees' the watermeide in Grysmanskloof*

much' (Bleek 1933: 300). In recent times, Griqua, Korana and Nama informants have recounted the use of sweet-smelling, ground-up buchu to quieten or calm the water creature (Hoff 1997).

## Conclusion

Maans Fourie from Zoar (Fig. 4) 'sees' the *watermeide* at the water source in Grysmanskloof, near Amalienstein, opposite a rock art site. This site is also the subject of the poem, 'Noue ontkoming' ('Narrow escape') by Hendrik Januarie (2007). Januarie interprets the paintings as people caught in flooding waters. Folklore and the sense of place interact in interpretation and presentation. The main thrust of the *watermeid* story lies in the words of Januarie, who makes a strong link to living heritage when he was asked about the embodiment of the flooding waters in his poem. He describes the water(s) as *'n watergevaar'* (a danger) (Januarie 2007: 20). He states (pers. comm. 2007): *'Dit is 'n water wese … soos die watermeid gevaar kan inhou, so is water ook 'n krag'* (It is a water being … as the water woman may be dangerous, water is also a power). The story of *watermeide* is drawn closer to the rock art imagery.

**Acknowledgements**

Grateful acknowledgements are due to the informants who shared their stories of *watermeide*. Selected quotations were sourced from the Digital Bleek and Lloyd Collection: http://lloydbleekcollection.cs.uct.ac.za/. Acknowledgement is given to the Manuscripts and Archives Department, Jagger Library, University of Cape Town, for permission to use the handwritten story told by Afrikaander.

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# ARCHAEOLOGY IN AFRICA

**Oldest human burial found in Africa**

The oldest-known human burial in Africa has been uncovered with the find of the remains of a child laid carefully to rest in a grave 78 000 years ago. The arrangement of the bones shows the three-year-old – named Mtoto after the Swahili word for child – was placed with legs tucked to chest and perhaps wrapped in a shroud with the head on a pillow. Archaeologists discovered the delicate and degraded bones while excavating the floor beneath a sheltered overhang at the mouth of the Panga ya Saidi cave in the tropical uplands of Kenya's coastal plain. According to Michael Petraglia, Professor of Human Evolution and Prehistory at the Max Planck Institute for the Science of Human History in Jena, Germany, the burial tells us something about our cognition, our sociality and our behaviours.

The discovery was made in 2013 but the bones were so delicate that it took years to excavate them. Eventually, the researchers decided to dig around the circular pit, roughly 40 cm wide and 13 cm deep, and encase the whole grave in plaster so it could be safely lifted from the ground. The block was taken to a specialist lab in Spain where the material was excavated further and then imaged with 3D X-ray equipment. Two teeth found in the grave matched those of *Homo sapiens*. Further teeth are still embedded in the child's lower jaw. Stone tools for scraping, boring and engraving were found in and around the grave, alongside stone points that may have been hafted to wooden shafts to make spears.

The images show that the articulated bones, such as the spine, have not fallen apart in the grave, leading the researchers to suspect that the body was wrapped tightly in a shroud before burial. 'Humans began to develop complex belief systems around death,' said Prof Nicole Bovin, the principal investigator on the project in Jena. 'These are deeply variable cross-culturally, as are ways of treating the dead. But what seems clear is that there is not just an emotional connection to the dead but almost certainly also a framework for understanding and navigating death, and for making it meaningful.' Archaeologists have found older human burial sites outside Africa. Human remains recovered from burials in the Skhul cave on the slopes of Mount Carmel in Israel and Qafzeh cave near Nazareth are between 90 000 and 130 000 years old. 'But early African burials are especially rare,' said Bovin. 'This almost certainly reflects biases in where research has been done.' *Nature, 05/05/2021*

**The Black Death and sub-Saharan Africa**

The Black Death swept across Europe, Asia and North Africa, killing up to 50 per cent of the population in some cities. Archaeologists and historians have assumed that the plague bacterium *Yersinia pestis* did not make it across the Sahara Desert as medieval sub-Saharan Africa's few written records make no mention of pl ague and the region lacks mass graves resembling the 'plague pits' of Europe. Nor did European explorers of the 15th and 16th centuries record any sign of the disease.

However, some researchers now point to new evidence from archaeology, history and genetics to argue that the Black Death likely did sow devastation in medieval sub-Saharan Africa. 'It is entirely possible that it would have headed south,' says Anne Stone, an anthropological geneticist at Arizona State University (ASU), although she and others caution that the evidence so far is circumstantial; researchers need ancient DNA from Africa to clinch their case.

Plague is now endemic in parts of Africa with most historians assuming that it arrived from India or China in the 19th century. But Gérard Chouin, an archaeologist and historian at the College of William and Mary in Williamsburg, Virginia, and a team leader of the French National Research Agency's GLOBAFRICA research programme, first started to wonder whether plague had a longer history in sub-Saharan Africa while excavating the site of Akrokrowa in Ghana. Founded around AD 700, the farming community surrounded by an elliptical ditch and high earthen banks was one of dozens of similar earthwork settlements in southern Ghana at the time. But by about 1365, Akrokrowa and all the other settlements were abandoned just as the plague ravaged Eurasia and North Africa. He has since documented a similar 14th century abandonment of Ife in the homeland of the Yoruba people, Nigeria, although that site was later reoccupied.

Events in the 14th century also transformed the site of Kirikongo in Burkina Faso, where University of Oregon archaeologists recently excavated. Starting around AD 100, people farmed, herded cattle, and worked iron. The settlement steadily grew for more than 1 000 years. Then, in the second half of the 14th century, it suddenly shrank by half. There is no evidence of food stress, conflict, or migration. The settlement stayed small and the ceramics got much simpler. Stone says the sudden changes at Kirikongo and Akrokrowa resemble those seen in the British Isles during the Justinian Plague in the 6th to the 8th centuries AD. New hints are also turning up in historical records. Historians have found mentions of epidemics in Ethiopian texts from the 13th to the 15th centuries, including one that killed 'such a large

*Continued on page 22*

# LARGE GEOMETRIC PLEISTOCENE PALAEOART ON THE CAPE SOUTH COAST

**Bob Charles Helm, Hayley Cawthra, Jan De Vynck, Carina Helm, Renée Rust and Willo Stear**

**Thoughtful commentators** have long suspected that sand must have been the original canvas for artistic expression by our distant ancestors. For example, Hodgson and Helvenston (2007) asserted that early art was 'likely in sand originally'. Likewise, Morris-Kay (2009) noted regretfully how much ancient art must have been 'created in perishable materials and has therefore been lost to the archaeological record'. Although sand was not explicitly mentioned, the inference was that it fell into this 'perishable' category.

Along with such intuitive assertions goes the concept that examples of palaeoart should become less common with increasing time intervals owing to taphonomic effects, whereby certain art substrates deteriorate faster than others (e.g. wood decays faster than bone, which decays faster than stone). The palaeoart record is thus biased towards materials that endure over time, and the volume of palaeoart may therefore have been far greater than the Middle Stone Age (MSA) archaeological record suggests (Bednarik 1994).

**A new substrate for palaeoart**

Seen from this perspective, the remarkable Cape south coast examples of MSA engravings in ochre (Henshilwood et al. 2002; Watts 2010), a drawing on a silcrete flake (Henshilwood et al. 2018) and geometric motifs engraved on ostrich eggshells (Henshilwood et al. 2014) are perhaps best viewed as the tip of the iceberg. The documented 'chevron' or 'hashtag' patterns have helped propel Blombos Cave, Pinnacle Point and Klipdrift Shelter to the global acme of archaeological awareness. Furthermore, as artistic expression can be regarded as a proxy for complex cognition and symbolic thought, these discoveries have helped reinforce the contention that southern Africa (rather than Eurasia) is where cognitive complexity first developed in early humans. The identification of another substrate that might record the artistic expression of our distant hominin ancestors in the MSA would therefore potentially be of importance.

We have identified the unconsolidated sand of

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*Fig. 1: The white arrow indicates the larger surface, lying at the foot of coastal cliffs; the black arrow indicates the source unit*

Pleistocene dunes and beaches, now preserved as rock surfaces on the Cape south coast, as such a substrate. Through the Cape south coast ichnology project, we have identified more than 300 vertebrate tracksites on Pleistocene rock surfaces in our study area, which extends some 350 km from Arniston in the west to the Robberg peninsula in the east. The capacity of these surfaces to faithfully record events that transpired on them when they were composed of sand is thus unquestioned.

Our hominin ancestors trod these same beaches and dunes and their tracks have been recorded at four sites in our study area (Helm et al. 2018, 2020). To our astonishment we began to appreciate that not just footprints were available to our interpretation but that our ancestors left traces of other activities in these sediments, including embedded stone tools, evidence of foraging and the creation of patterns in the sand. We reported on this phenomenon and introduced the term 'ammoglyph' to describe a pattern created by

*Fig. 2: The larger geometric feature; scale bar = 10 cm*

humans in sand that is now evident in rock (Helm et al. 2019) namely a large circle, a hashtag pattern, a fan-shaped pattern, a series of sub-parallel grooves in association with human footprints and a putative sand sculpture (complete with hashtag pattern) resembling a stingray.

**Two further ammoglyphs**

In a recently published article in *Rock Art Research* (Helm et al. 2021a), we added to those initial findings a description of what we interpret as two further ammoglyphs from a remote, rugged stretch of coast east of Still Bay (Fig. 1). These were identified on two adjacent loose slabs that lay close to the high-tide mark, at the foot of coastal cliffs that rise as much as 70 m. As the two slabs exhibited a similar stratigraphy, it is plausible that they represented portions of a single, larger palaeosurface. Both surfaces exhibited long, linear grooves, as much as 1,5 cm deep, arranged in what appear to be triangular geometric patterns.

The maximum dimensions of the larger surface (Figs. 2 and 3) were 131 cm by 110 cm. On it, three straight grooves, 99 cm, 85 cm and 76 cm in length, appeared to form a near-isosceles triangle, although the grooves were truncated by the edges of the slab near their points of probable intersection. When we projected the groove axes beyond the ends of the surface, to where they would intersect to form angles of a triangle, the lengths of the triangle sides would have been ~107 cm, ~98 cm and 85 cm, and the resulting angles of the triangle would have been 63°, 70° and 47°. A prominent feature of this surface was another groove that almost bisected the bottom angle and ran towards the midpoint of the opposite side of the triangle. Its proximal portion, 45 cm in length, was up to 2 cm wide and 0,5 cm deep. Distally, this groove disappeared abruptly, then reappeared faintly near where it met (and extended marginally beyond) the opposite side.

The second surface, which is smaller, contained three straight grooves (Figs. 4 and 5). An intriguing finding in this instance was that one groove ended where it met one of the other grooves and was almost perpendicular to it (angles of intersection were 86° and 94°). This resulted in what was close to a right-angled triangle. We noted in our article that 'near-isosceles triangles, right-angled triangles, bisectors, and perpendiculars are rarely encountered natural phenomena on Pleistocene palaeosurfaces'.

**Discussion**

The concept of ammoglyphs is new. Hence great care needs to be taken to rule out other possible causes for these phenomena. In our two published articles (Helm et al. 2019, 2021a) we took pains to address this issue, providing our rationale for the exclusion of other agents. In the case of the large geometric patterns, these included rhizoliths and diagenetic soft-sediment deformation features, as well as more recent graffiti.

Graffiti has become a scourge on aeolianite surfaces in southern Africa (Helm et al. 2021b). While modern examples are easy to exclude, it could be argued that triangular patterns etched in rock, say a century ago, might pose identification challenges. Fortunately, excluding this possibility proved straightforward. First, in a number of places the grooves were partly or completely occluded, which was consistent with penecontemporaneous filling in by sand but not by graffiti. Second, the disturbance that was evident in the underlying layers implied a compressive force from above when the groove was formed and the surface sand was unconsolidated, and was thus incompatible with graffiti.

We have chosen not to involve ourselves in the debate on what these shapes might have meant to their creators, and we use the term 'palaeoart' *senso lato.* Nonetheless, when we encounter patterns or motifs that resemble those documented elsewhere in

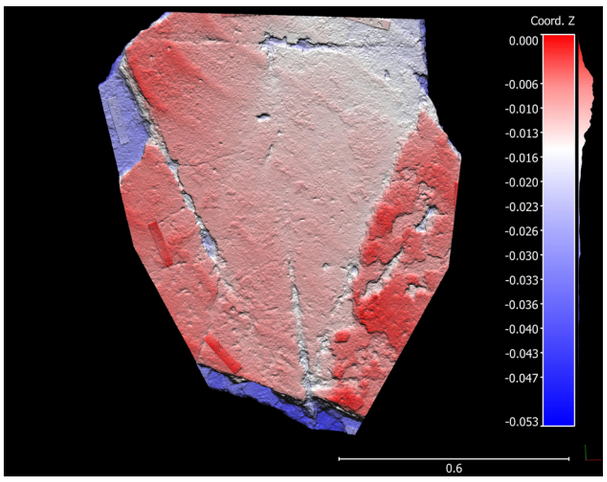


*Fig. 3: Photogrammetry of the larger geometric feature; horizontal and vertical scales are in metres*

*Fig. 4: The smaller geometric feature; scale bar = 10 cm*

MSA art, we are intrigued. For example, Von Petzinger (2009) described an array of Upper Paleolithic geometric signs in parietal art in France, noting that triangular shapes were present at numerous sites and occurred in all periods. Likewise, the triangular shape on the larger surface (with its 'bisector' that appears to terminate abruptly) resembles a purported female fertility symbol that became manifest in palaeoart in Europe around 37 000 years ago (White et al. 2012). It is not inconceivable that such a motif had an earlier origin in Africa.

One of the unexpected features of these triangles is their size; they are on an unprecedented scale for MSA palaeoart in the region. While it cannot be assumed that the grooves on the larger surface would actually have met (although this seems very likely), it also cannot be assumed that they ended where they would have intersected. Could they have continued and formed part of a much larger geometric figure? The famous engraving in ochre identified at Blombos Cave (Henshilwood et al. 2002) can be viewed as a series of adjoining triangles. Could the feature on the larger surface have equated to the Blombos Cave engraving writ large? Such musings are a reminder of the potentially enormous size of a canvas of sand and indicate the need for a dedicated search for further examples of ammoglyphs.

Dating the surfaces on which these large geometric patterns were registered is of great importance. Samples have been submitted to the University of Leicester for Optically Stimulated Luminescence dating. However, stratigraphic correlation to a dated sequence 2 km to the east, which yielded a range error 136 ± 8 ka to 91 ± 4.6 ka (Roberts et al. 2008) suggests that these deposits may date to between Marine Isotope Stage (MIS) 5e and MIS 5b. They may therefore have been laid down relatively close (temporally and spatially) to the engravings dated to 77 ka (Henshilwood et al. 2002) and a drawing dated to 73 ka (Henshilwood et al. 2018) at Blombos Cave, which is situated a mere 30 km to the west.

On a global level, aeolianites tend to occur between latitudes 20° and 40°. The southern African examples provide a spectacular example of this rock form. The fact that some of the best preserved aeolianites in the world occur on the stretch of coastline where our MSA hominin ancestors developed cognitive complexity, and can provide evidence of their resulting activities, is both fortuitous and remarkable. Thus far, 36 sites with possible evidence of a hominin 'signature' have been identified in Pleistocene sediments within our study area. Some of these are unequivocally of hominin origin, such as confirmed hominin tracksites and MSA lithics embedded in aeolianites. Others are speculative and may be the result of our confirmation bias; perhaps because we are human observers and because we have an idea of what we are trying to find, we are inclined to see things that look as if they were created by ancient humans but may well have other explanations. Future research will hopefully help to resolve how many of these sites are indeed of ancient human origin.

However, once exposed, many of the surfaces have a short half-life. They are eroded by wind and waves, they fracture and often they slump into the sea. Their ephemeral nature means that vigilance is required, and a willingness to repeatedly patrol coastal areas of potential high yield, especially after storm surges and known landslide events. This has attracted enthusiastic and knowledgeable citizen scientists, retired professionals and park rangers, who ensure regular field investigations.

**Conclusion**

The notion of a vast, ancient canvas of dune or beach

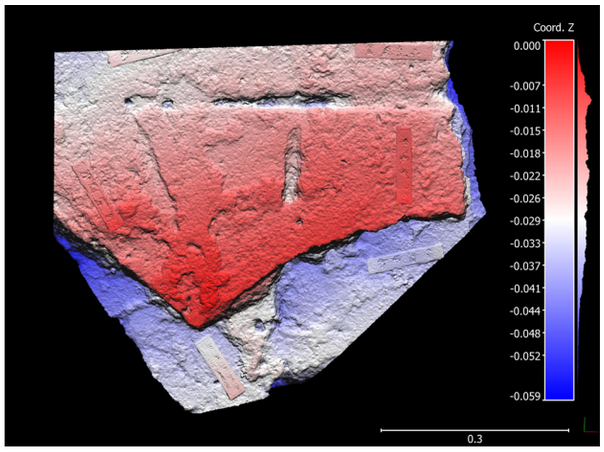


*Fig. 5: Photogrammetry of the smaller geometric feature; horizontal and vertical scales are in metres*

sand on which our forebears perhaps felt something akin to joy in expressing themselves, is evocative. Equally evocative is the realisation that some of their activities and creations on those surfaces were preserved and are amenable to our interpretation today, if we know where to look. Maybe an inspiring message that we can take from these discoveries is that when we draw lines or images on the beach or build sandcastles with our children, we are indulging in profoundly atavistic pleasures.

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## ARCHAEOLOGY IN BRIEF

**3 000-year-old 'lost golden city' found in Egypt**

Archaeologists have hailed the discovery of what is believed to be the largest ancient city of Egypt to be one of the most important finds since the unearthing of Tutankhamun's tomb. The famed Egyptologist Zahi Hawass announced the discovery of the 'lost golden city' near Luxor, home of the Valley of the Kings. The city, known as Aten, is 3 000 years old, dates to the reign of Amenhotep III, who died around 1354 BC, and continued to be used by Tutankhamun and Ay. Items of jewellery, such as rings, along with coloured pottery vessels, scarab beetle amulets and mud bricks bearing the seals of Amenhotep III have been uncovered. Excavations between the temples of Ramses III and Amenhotep III began in September 2020. Within weeks, formations of mud bricks began to appear in all directions. The remains are well preserved, with almost complete walls and rooms filled with tools of daily life. Several neighbourhoods have now been uncovered, including a bakery complete with ovens and storage pottery, as well as administrative and residential districts. Betsy Bryan, professor of Egyptian art and archaeology at Johns Hopkins University, said the city will give a rare glimpse into the life of the Ancient Egyptians at the time where the empire was at his wealthiest.

*Agence France-Presse, 09/04/2021*

**Remarkable Pleistocene human trackways**

A paper entitled Walking in mud: from White Sands National Park (New Mexico) by Matthew R. Bennett et al. in *Quaternary Science Reviews* 249 (1 Dec. 2020) reports on a second trackway of human origin identified at White Sands NP. While the first one identified was an amazing 0,8 km long, the trackway reported in the current article was an even longer, 1,5 km in length. It memorialises a journey made by an adolescent male or female who carried a younger child for half of the journey. Columbian Mastodons and giant sloths crossed the trackway between the two trips, suggesting that hours, rather than days, elapsed between the two trips. While dating the tracks is difficult, the team estimates that the journey occurred before 10 000 BP. *Archeology E-Gram, 12/2020*

# ARCHSOC PARTICIPATES IN THE SAASC ONLINE STUDENT DEVELOPMENT CONFERENCE 2021

**Patricia A. Groenewald**

**June 2021. Many archaeology students** were still stuck with working from home. A lucky few had returned to the lab. All were eager to get their teeth into some archaeology. Fortunately, the Southern African Archaeology Student Council (SAASC) came to our rescue with a month-long Student Development Conference.

The SA Archaeological Society participated in the event by presenting a lecture and sponsoring prizes for the best short essay by a student on how they would benefit from membership of the society.

SAASC has been hosting Student Development Workshops since 2013. These give students from all around southern Africa the opportunity to meet other students, hear about the research being done at different institutions and learn skills that are useful to professional archaeologists.

This year, SAASC created a virtual space for students to engage with the topics being presented and had a wonderful response from sponsors, presenters and students. In total, there were 30 presenters and 84 participants representing 11 SADC universities and 10 international universities and institutions. The student participants were from every level of study. All the presenters held either Master's or PhD degrees in archaeology or related disciplines and were either actively studying, were engaged with university research or lecturing, or were working in the private sector. Each presentation was pre-recorded and was made available to participants via an e-mail link along with a link to an activity related to the presentation in the recording.

Prizes were awarded in various categories and included book prizes, branded merchandise and free museum tickets. Details can be found at https://web.facebook.com/ ASAPAsc. The following students won prizes:

*Best Student Poster Presentation* – Irini Sifogeorgaki

*Best Student Performance* – Lerato Tskatsi

*Most Engaging Student* – Polite Dzvairo

*Best Public Archaeology Essay* – Sebastian Bielderman

*Best participation in the quiz activities of the Ghilraen Laue lecture* – Ayanda Mama

*Kwa-Zulu Natal Museum Prize* – Taariq Motala, Carl Holmes, Malesetla Sepamo and Tatenda Tavingeyi

*Best participation in all the fauna and fossils quizzes* – Carl Holmes and Polite Dzvairo

*Best and most creative rock art submission following the lecture on ochre and early modern humans by Tammy Reynard* – Lerato Tskatsi and Sebastian Bielderman

*For completing the activity related to Cézar Mahumane's lecture on Underwater Cultural Heritage in Mozambique* – Lea Jobard

*Best Overall Student Participation* - Anke van Der Merwe, Joseph Ogunsetire, Bacara Spruit, Lefa Leanya and Humphrey Nyamiya

**ArchSoc short essay prize**

Following a South African Archaeological Society presentation, the participants were requested to answer the following question: 'Tell us (in roughly 250 words) how you would benefit from membership to the South African Archaeological Society'. Congratulations to Pascal Mutakaya for winning this short essay competition. He wins a one-year complimentary membership of the society. The top three short essays are reproduced below:

**Pascal T Mutakaya** – 'As a final year student in Anthropology and Archaeology at Unisa, joining the South African Archaeological Society will be of great benefit as I will be engaging with professionals, postgraduate students and other stakeholders in the field. Furthermore, as an undergraduate student I do not have any platforms that I engage for career guidance and actual practice, hence the need for that exposure, clarification from postgraduate students and [help with] various ways to improve our CVs. Another view is [that] academically we do not share some of the ideas we have since our curriculums or syllabuses are already established and there is no way one can introduce their ideas besides writing academic essays. Hence, the need to join the SA Archaeological Society. Engaging with students from various institutions will address the issues of some students who are isolated from countries like

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Zimbabwe and Botswana …. Furthermore, joining the society will work as an awareness campaign for the society and will help me in navigating different professionals and procedures, for instance in choosing the aspects to specialise on. This student development programme (SDC) has helped me to gain knowledge on certain professionals to approach in future or [from whom to] seek advice ranging from stone age archaeology, palaeontology, cultural resource management and museum studies. Hence, I believe the SA Archaeology Society will enhance our ideas and shape the way we think about the archaeology field. The SDC is my first development programme in the field and it has helped a lot. In future, seeking any advice, career guidance and general academic advice will not be a problem as we now have contact details of postgraduate students who are presenting during the SDC. Therefore, I believe the SA Archaeology Society will bring more exposure.'

**Sebastian Bielderman** (doing his Honours in archaeology at Wits University) – 'As a student, membership of the South African Archaeological Society has a number of direct and indirect benefits. Direct benefits would be access to seminars and outings that, in the same way as this conference, help with continued skills development beyond formal academic channels. Outreach opportunities are also beneficial as it introduces students to conducting outreach themselves. I think many students from different backgrounds (myself included) find outreach daunting as they don't know how to approach communities or feel they may not be well received. Society outreach may 'break the ice' on these issues. Finally, there are also indirect benefits that come in the form of the platform that the society creates. The society creates the platform or channel through which students can network with older professionals [from whom] they can hopefully learn, as well as other students who will become their colleagues and co-researchers in later life [and] whom we will not necessarily meet in the normal course and scope of our university studies.'

**Tatenda Tavingeyi** (completed a BA (Hons) in Archaeology, Museum and Heritage Studies, Great Zimbabwe University) – 'Being a member of international or regional professional associations in my view is a key aspect that aids one's personal as well as professional growth. Membership to the South African Archaeological Society (SAAS), honestly speaking, has been one of my wishes, especially in a case where all things are equal. Why then is it my wish to have membership of the SAAS? It is an issue related to my personal and career goals not only as an (Hons) graduate in archaeology but also as an enthusiast in archaeological heritage related aspects. Membership to the SAAS would associate me with a team/family (fellow members) that promotes public awareness of archaeology and its findings in southern Africa, a benefit to me (personally) and the discipline at large. Promotion of public awareness of archaeology and its findings in my view is one of the goals of the SAAS. Because of this goal, membership would be of benefit because I support community engagement, especially in archaeological research, while I also believe this would open research and mentorship avenues for seekers like myself. Apart from the interaction with professional archaeologists and lectures, I strongly believe that membership of the SAAS would broaden my knowledge lenses while it would also expose me to the various facets of archaeology. Membership to the SAAS would be of great benefit not in a single aspect but in numerous ways not limited to those mentioned above but also including having an opportunity to receive all the society's publications etc.'

## ARCHAEOLOGY IN AFRICA

*Continued from page 16*

number of people that no one was left to bury the dead'. It is not clear what the disease was, but historian Marie-Laure Derat of the French National Centre for Scientific Research in Paris found that by the 15th century, Ethiopians had adopted two European saints associated with plague, St Roch and St Sebastian.

Some genetic evidence also supports the idea. A 2016 study in Cell Host & Microbe revealed that a distinct subgroup of Y pestis now found only in East and Central Africa is a cousin of one of the strains that devastated Europe in the 14th century. 'It is the closest living relative to the Black Death strain', says Monica Green, an ASU historian of plague who analysed this and other previously published plague phylogenies in the journal Afriques. It is intriguing, commented Benjamin Adisa Ogunfolakan, an archaeologist and director of the Museum of Natural History at Obafemi Awolowo University in Ife, 'but the evidence so far is not strong enough to rewrite centuries of African history'. *Lizzie Wade,.06/03/2019*

# WORDS FOR GEMSBOK

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# SOUTH AFRICA ARCHAEOLOGY

**New Heritage Site: Boomplaats rock engravings**

The South African Heritage Resources Agency (SAHRA) in terms of the National Heritage Resources Act No. 25 of 1999 has notified stakeholders of the declaration of the Boomplaats Rock Engraving Site Complex. SAHRA has identified the site as having qualities so exceptional that it is of special national significance and warrants the declaration as a National Heritage Site.

According to the nomination statement, 'The Boomplaats rock engraving complex contains the most significant collection of rock engravings made by pre-colonial Later Iron Age farming communities in South Africa and serves as an invaluable historic record of a deep-rooted cultural identity associated with the landscape. This identity survives to the present day where local descendants of the Later Iron Age farmers identify with the site. … Boomplaats was the first site of its kind to be recorded more than a century ago and has been the at the centre of scientific research for this type of archaeological site ever since, greatly contributing towards our understanding of Later Iron Age farmer communities' social organisation, and also served to corroborate interpretations of researchers regarding … settlement layout and function, serving as a window into the world of the BaKoni. These socio-cultural, historic and scientific research values, along with the stunning aesthetic value of the engravings, coupled to their fine state of preservation, bestow on Boomplaats a site significance of national importance.'

The announcement was made by the Bokoni Farmscapes project, a National Research Foundation African Origins Platform-funded initiative based at Wits University. Bokoni is the only place in South Africa, and one of the few in Africa, where people used stonewalled terraces for agricultural purposes. These sites speak to innovative approaches to farming and long-term relationships with the land. *Wits University*

# CALL FOR 2022 GRANT APPLICATIONS

## SA Archaeological Society Nothern Branch

**The Northern Branch of the South African Archaeological Society** invites applications for funding for 2022 by researchers and educators in the field of archaeology. South African archaeological research projects and educational programmes that promote the knowledge and understanding of archaeology will be given consideration. Awards may be split over more than one project.

The deadline for applications is **30 November 2021.**

**Applications must include the following:**

1. An outline of the research or education proposal, anticipated project results or benefits, the project implementation schedule, the total budget estimate and the grant amount being applied for.
2. Should the project or programme to be funded form part of a larger project, details of how the funded part relates to the whole.
3. The resources and facilities available for implementing the project or programme.
4. A breakdown of the amount applied for into discrete expenditure categories to permit an award to be made for specific cost items.
5. Biographical details of the applicant(s), including professional qualifications and experience.
6. Two references attesting to the quality and success of previous archaeological or educational project work.
7. Plans to publish the research results.

Successful applicants will be required to provide six-monthly progress reports and a final project report. On completion of the project, an article on the project must be supplied for publication in *The Digging Stick.*

Applications should be forwarded to the Secretary, Northern Branch at secretary@archaeology.org.za, or to PO Box 41050, Craighall 2024. Enquiries may be directed to SJ de Klerk at 083 386 1035 or sarelj.deklerk@gmail.com. The successful applicant/s will be notified by the end of December 2021.


## The South African Archaeological Society

**This is the society** for members of the public and professionals who have an interest in archaeology and related fields such as palaeontology, geology and history. Four branches serve the interests of members. They arrange regular lectures and field excursions guided by experts, annual and occasional symposia, and longer southern African and international archaeological tours.

The Society was founded in 1945 to promote archaeology through research, education and publication. It is a non-profit organization – Registration No. 024-893-NPO.

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**The Society produces** the following publications:

- ***South African Archaeological Bulletin***, biannual scientific publication of current research in southern Africa.
- ***The Digging Stick***, the Society's general interest magazine – three issues a year.
- ***Goodwin Series***, an occasional publication on a specific field of archaeological interest.

**Subscriptions for 2021:** South Africa: Ordinary – R335; Joint/Family – R355; Junior members – R230. Africa ordinary – R395; Overseas ordinary – R710. Institutions: local and African – R675; Overseas – R1 450.

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