



NTSHEKANE AND THE END OF THE EARLY IRON AGE IN KWAZULU-NATAL

Gavin Whitelaw

Ntshekane is an Early Iron Age (EIA) site in central KwaZulu-Natal, close to the village of Muden. Tim Maggs excavated it in 1973, the year after his appointment by the Natal Museum as the first professional archaeologist in the province. The site was then, and still is today, severely damaged by erosion (Fig. 1), which has removed most of the above-ground remains (houses, granaries, cattle pens) and exposed buried features such as storage pits and graves (Fig. 2). The erosion provided Maggs with the opportunity to recover a great deal of material fairly easily. For archaeologists each

storage pit serves as a time capsule filled over a brief period or, in some cases, probably in a single episode of dumping. The tight chronological control that Maggs achieved over the material he unearthed at Ntshekane and elsewhere allowed him to completely rework the Natal EIA sequence by the early 1980s and, consequently, to recognise the interpretative challenge posed by multiple occupations on EIA sites in southern Africa.

The EIA results from the expansion of Bantu-speaking farmers into the savannas south of the equatorial forest, to reach the KwaZulu-Natal region around 1 600 years ago. They introduced a completely new way of life that included settled homestead life, domesticated crops and animals, and metallurgy. Settlement in the region occurred in two phases, which we can recognise from pottery style. Mzonjani

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Fig. 1: The Ntshekane site in 2011

pottery marks the earliest phase, dating from AD 440 to 570. Mzonjani sites typically lie within 8 km of the coast and extend to about 60 km south of Natal Bay (Durban). The Msuluzi sequence marks the second phase of settlement, which dates from AD 630 to 1060 and extends as far south as East London and into the deeply incised river valleys of the interior. Although the radiocarbon dates do not (yet) close the gap between Mzonjani and Msuluzi, there was probably interaction

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Fig. 2: Carolyn Thorp and an exposed Ndondondwane phase pit (SVP44)

between the two groups of farmers because Msuluzi incorporates aspects of the Mzonjani pottery style. We divide the Msuluzi sequence into three based on changing pottery style: Msuluzi (AD 630–800), Ndondondwane (AD 800–950) and Ntshekane (AD 950–1060). Each style is named after the site at which it was first identified.

Two radiocarbon dates from the Ntshekane site put the occupation there between AD 890 and 1030 (Fig. 3), but Maggs also identified a pottery style that he later called Msuluzi, which indicates an earlier occupation (Fig. 4). In the late 1980s, he began to suspect the presence of an Ndondondwane component as well, which our project confirmed



Fig. 3: Ntshekane phase pot from the SVP12 pit

(Fig. 5). We visited the site several times from 2009 onwards and began work there in 2015. Our aim was somewhat contrary, I suppose: we were challenged by the broken nature of the site, which resembles a four-dimensional (three spatial plus time) puzzle with most of the pieces missing. If we could place the surviving pieces correctly, we wondered, would we be able to see something of the settlement layout and history of the occupation at Ntshekane?

Findings from the site

We mapped every visible feature and recorded its pottery style. The features include pits, burials, deflated middens, forge bases, granary platforms, scatters of slag, worked stone and potsherds. To organise these data – to place the puzzle pieces – we used a model of homestead organisation called the Central Cattle Pattern, which was developed from ethnographic accounts of African farmers gathered over the last 200 years. On the one hand, the pattern simply indicates how different kinds of features within the homestead relate to one another. The cattle pens with grain pits and mainly male burials are surrounded by a residential area containing separate households, each with its own house, courtyard and granaries, and, in some cases, the graves of women and children. On the other hand, the model incorporates ideas about status, kinship, the ancestors and marriage. Indeed, for African farmers this homestead organisation represented the well-ordered world. For this reason, we see it expressed and manipulated in various ways, both in art and architecture.

We excavated several features, either because we felt excavation would provide useful data, or because they were in danger of being lost to erosion (the burials, for example). Bioarchaeologist Lawrence Owens of the University of Winchester analysed the human remains during the 2017 field season. One individual lay in a flexed position on the left side, covered with a grindstone. The left-side internment made us suspect that this was a woman, while the grindstone suggested someone who had had at least one child (she had been allocated her own field to cultivate). Owen's analysis showed that she had died aged 30 to 40 years, when five to six months pregnant.

Dental modification

Along with at least one other individual, probably a teenage girl, she had suffered dental modification, which involved the removal, chipping and filing of incisors and canines. Dental modification seems



Fig. 4: Msuluzi phase pot excavated in 1973



Fig. 5: Ndondondwane phase pot from the SVP15 pit

characteristic of all EIA people, both male and female, who probably endured the operation around puberty. Years ago, Alan Morris of the University of Cape Town argued for a link between EIA dental modification and the medial gap in the peg-like teeth of four of the ceramic Lydenburg head sculptures. The heads were probably used in a highly ritualised, pre-marital educational context. More recently, Simon Hall showed convincingly in *The Digging Stick* that EIA dental modification was modelled on the dentition of the armadillo, an animal that is central to the creation of culture in some African belief systems.

Pits are key features in our project because some of them were sealed with dung linings or contained washed-in dung. According to the Central Cattle Pattern model, the pits were probably dug for grain storage and were situated in or close to the cattle pens. In one cluster of pits we excavated three, all of which were large. One has a diameter slightly greater than 2 m and a preserved depth of 1 m. We suspect that up to a metre of the pit has been lost to erosion. The two other excavated pits in the cluster were shallower and smaller but still had diameters of around 1,5 m. The larger one contained a mass of broken stones (including grindstones), pottery, bone, an unfired cattle figurine and quantities of dung, all probably dumped in a single episode and conceivably the product of one event or process. Such single dumping episodes occur in other pits and on other sites. They might represent a rite of passage related to girls' pubescence, or death. Whatever the case, we should probably separate interpretation of the pit fillings from the pits themselves, which were commonly re-purposed, even as graves.

A significant bead discovery

Nearly all the excavated Ntshekane phase (AD 950–1060) features yielded glass beads, providing 52 out of a total bead count for the site of 189. They are cylindrical and tubular-drawn beads between 2 mm and 5 mm in length and width, and mainly dark in colour. They possibly belong to Marilee Wood's East Coast Indo-Pacific series, which appeared in the Mapungubwe landscape after AD 950. The glass beads are significant because until now only three EIA sites in KwaZulu-Natal have yielded glass beads,

one from each site. One came from Ntshekane from a 'late Ndondondwane' phase pit that Maggs excavated. The three beads are all cut tubes, blueish in colour, and probably of the older Zhizo bead series.

The glass beads of course relate to the Indian Ocean trade system. Ashley Coutu's work suggests that EIA communities in the KwaZulu-Natal region were exporting elephant ivory into the trade system from as early as the AD 700s. Evidence of goods received in return is rare and later in date, but includes the Zhizo beads and a sherd of a glazed ceramic vessel made in the Basra region of southern Iraq around AD 800. Research might in future determine whether the 52 new Ntshekane beads are simply a continuation of this ancient trade, or represent a different set of circumstances.

Mixed pottery assemblages

Two pits contained Ntshekane pottery as well as pottery of the Blackburn style (Fig. 6). Most archaeologists associate Blackburn pottery with the settlement of Nguni speakers in the region in the AD 1000s. In this scenario, Ntshekane people spoke a different Bantu language. These mixed assemblages are the first evidence ever recovered that relates directly to the interface between the two groups. Since pots of both styles were treated similarly, they were probably jointly part of household assemblages at Ntshekane.

Even more startling are pots that combine Ntshekane and Blackburn decorative attributes, such as in the use of graphite and black burnish, and flat bases. Pots in other pits, now that we have been alerted to this cultural contact, are Ntshekane in style but look as if they were made by a potter not schooled in the Ntshekane technique. There is a sloppiness about the finishing that is rare in Ntshekane pots but common in Blackburn vessels. These features suggest not only interaction between the two communities, but intermarriage, with Blackburn women marrying into Ntshekane homesteads. Marriage is partly a political act: these marriages most likely represent alliances between two groups of farmers, one newly arrived and the other with a long history embedded in the landscape (so obviously indicated to us by the graves and pits).

Settlement history at Ntshekane

This embedded history is revealed by our interpretation of the settlement history at Ntshekane. We have evidence for one Msuluzi-phase homestead, containing one cattle pen. For the Ndondondwane phase, the data indicate four cattle pens. Two might belong to the same homestead, which lay directly over the Msuluzi homestead. We interpret this to indicate the growing status of one agnatic cluster (descendants of a male ancestor). The other two cattle pens might represent the homesteads of married sons or followers. The Ntshekane phase

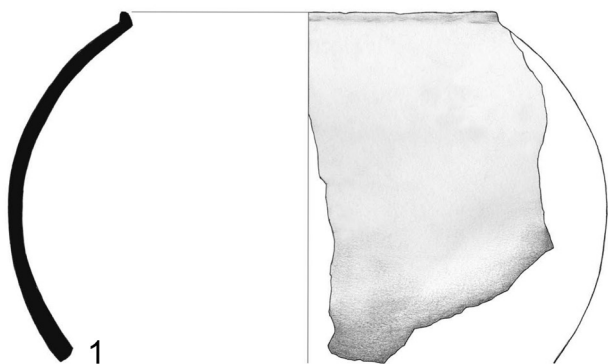


Fig. 6: Blackburn phase pot from the SVP12 pit

horizon contained up to ten cattle pens spread across the site, but with a slight concentration in the vicinity of the earlier Msuluzi and Ndondondwane homesteads (Fig. 7). Again, this seems to emphasise the status of the principal agnatic cluster and its continuity through time. This area also yielded the 52 glass beads and Blackburn pottery. By contrast, most of the features that Maggs excavated lay slightly north of the cattle pen concentration. The restricted distribution of the beads and Blackburn pottery possibly relates to the status of this homestead at Ntshekane and the control that chiefs maintained over alliances and trade.

Despite this embedded history, EIA dates do not extend into the AD 1100s. An entire way of life

vanished. I think that an explanation might lie in the different forms of marriage maintained by Ntshekane and Blackburn people. Both groups were patrilineal (descent was through the father), exchanged cattle for wives and, I believe, did not marry cousins. But what of other details?

The role of marriage

I have argued that in Ntshekane communities a high exchange value for women (relative to average cattle holdings) bound homesteads together in ways that posed a challenge to the authority of homestead heads (husbands and fathers). In a sense, marriage was a horizontal force between homesteads that could unbalance and upset the vertical force of descent, which homestead heads sought to protect by maintaining homestead unity and ensuring agnatic continuity.

I do not yet have sufficient data to develop a clear picture of Blackburn marriage, but I have offered an interpretation of marriage in the Moor Park phase (1300–1700), which arose out of Blackburn. I suspect essential similarities existed across the two periods. In Moor Park communities, the exchange value of women relative to average cattle holdings was low. Also, people de-emphasised the relationship between husbands and in-laws. This had the effect of accentuating the authority of homestead heads

(husbands and fathers) and their senior male relatives. Such marital differences were surely significant at contact. Imagine the response of young unmarried Ntshekane men and women who were dependent for their marriages on cattle becoming available from the marriages of siblings, encountering a different, seemingly less costly bride-wealth system in which relations with in-laws were less imposing. Would they have bought into it? If they did, they would have undercut and broken the authority of their fathers and leaders, which in turn would have resulted in the rapid loss of the practices that bolstered this authority. The EIA would have been consigned to history. These are matters for future research.

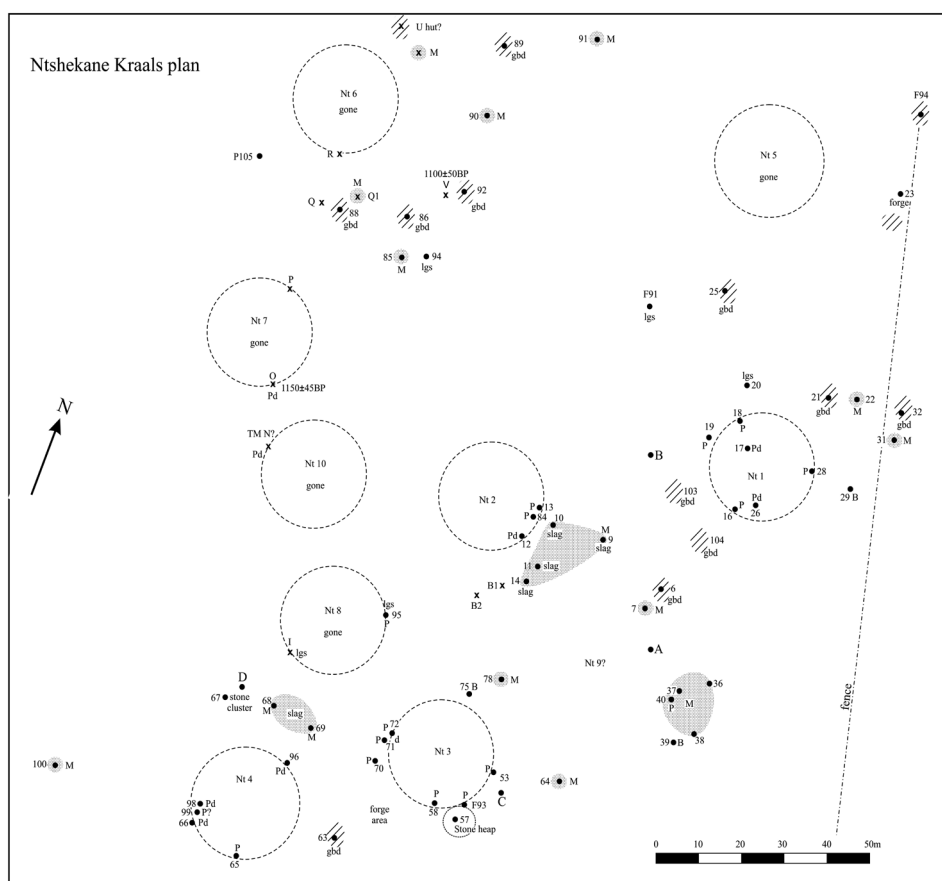


Fig. 7: The Central Cattle Pattern applied: interpretation of Ntshekane phase features

FEMALE INITIATION, WATER AND SAN ROCK ART

Renee Rust

Were some sites with San rock art, in particular places of female initiates, portals to the mystical world of spirits with associations of healing and rainmaking? Were these sites near watercourses an embodiment of the 'underground' dimensions of these rituals? Rock art sites are scattered near water sources throughout the landscape in the Klein Karoo, the Langeberg and the south coast of the Western Cape as if marking the landscape with spiritual meaning on routes to these waterholes and rivers. Answers to the above questions may lie in indications of initiation rites in the rock art, and an interrelatedness between water and reaching puberty. As a case in point, a painted frieze at a rock art site in the Langeberg near Riversdale on the south coast appears to show remarkable skill in depicting initiation within a rain dance executed by a group of women (Fig. 1).

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The content of the rock art

Fig. 1 features a complex scene of human figures, eland and elephant. The site is situated in a kloof, 60 m above a rivulet with consistent water flow. The setting is scenic with views to the higher southern reaches of the Outeniqua Langeberg range. The tracing comprises ten per cent of the painted rock face at this site, which extends over 10 m. The double stippled brown lines on the tracing show the extent of white quartz intrusions in the rock face. The images are depicted around these projecting quartz lines. Worldwide, quartz fragments are perceived as a light force and in southern Africa are associated with rainmaking among the /Xam (Lewis-William & Challis 2011). The site is positioned high up a cliff face with a sheer talus drop of 30 m. One has to negotiate a narrow 50 cm ledge to enter the site, which impresses with its vast smooth sandstone surfaces of the cupola-shaped rock face and ceiling on which the paintings occur. A visit to this site, especially by initiates, would have been a calculated and purposeful passage.

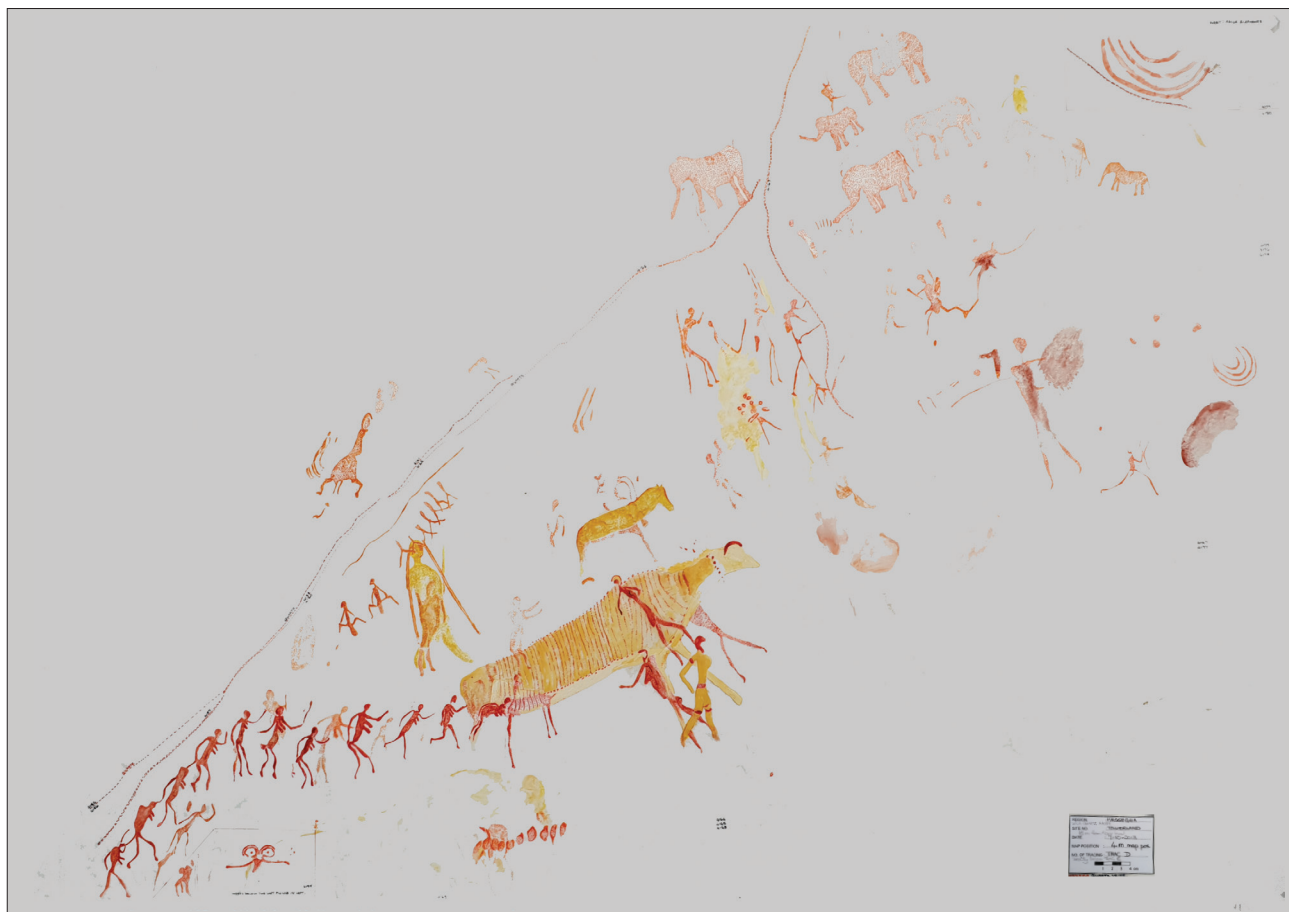


Fig. 1: The procession of women, at a site in the Langeberg near Riversdale in the Western Cape. The female figures show breasts, some have square head shapes, their limbs are joined, and they are 'moving' towards the yellow eland. The eland has red lines across its body, appears to be capped and superimposes other figures (copy R Rust, 2018).

The paintings, although poorly preserved in part, are animated and cohesive in imagery. Eleven red female figures, linked in a procession, display postures and features of transformation in the ritual of a dance. Some figures have lines emanating from their heads, which join up with a figure in front. The arms of the figures are elongated, touching and linking the figures. Certain figures superimpose older, faded paintings of women. Individual dots and a cluster of red dots lower down surround the figures. The procession is in line with a central prominent image of a yellow eland. Two figures in the procession closest to the eland overlie its hindquarters. One touches the tail and the other has a forward-bending posture, thereby confirming the association of the line of female figures with the eland.

The eland is endowed with omnipotence as it is encircled or outlined by red dots that also appear along its neck, while its head is capped by a red covering. Parallel vertical red lines cover the body and neck of the eland in a grid-like fashion. These lines may represent cut marks on the eland, confirming the significance of the eland as a rain animal. In /Xam myth, an eland is the rain, *!khwa-ka xoro* (Lewis-Williams & Dowson 1989: 92). The eland is 'cut up' (Lewis-Williams 2000: 222–223) and its blood precipitates as rain (Bleek 1935: 32). The /Xam recognised *!khwa* as the rain deity.

Other figures of similar posture, one a female, are superimposed on the torso of the eland. A male figure, prominently coloured in yellow, has a red hook-head and is decorated with arm, waist and knee bands. This figure may be a shaman, representing the carrier of the potency surrounding the imagery. Three compelling red figures, probably female, above the procession of women and the eland have raised arms and are spread-legged with genital emissions. One has short dashes between the thighs. Figures in rock art with similar features found across southern Africa are known as 'mythic women' (Solomon 1994: 339) and may depict the complex association of menstrual blood and amniotic fluid in San ideology. They are associated primarily with birth, rain/water and the rain animal, invoking the female initiation ceremony.

Solomon (1994: 349) elucidates the wide symbolic meaning of femininity in rock art and writes: 'Gender itself is an immensely powerful and flexible metaphor'. My explanation of this panel refers perceptively to initiation and is based on the corpus of beliefs described by Solomon and others about gender ideology and mythic women since they are linked to female initiation and/or the initiate, and the interplay of the power relations of femaleness (Solomon 1994: 361). Female bodily substances suggest a connection with the netherworld with influence on the weather, healing and benevolence.

Ritual and water

Although the views of indigenes from Northern Cape, Kalahari and southern Cape San societies may have differed, notably in time and space, analogical reasoning has indicated that beliefs and even rituals remained similar (Keeney & Keeney 2015). Among the 19th century /Xam southern San, young women received more attention when they reached puberty; they were 'stronger' and more effective within the tenets of unworldly potency (Bleek 1933; Hewitt 1986) that prevailed, among other things, in the rain's */ko:öde*, the /Xam word for magic power (Bleek 1956: 569, 320). For example, a girl with her first menses had the power to influence the weather, to cause lightning and to harm others, notably when she 'snapped' her fingers (Bleek 1933: 297).

Among the !Kung (Ju/'hoansi), a person's *n!ow* is the 'rain' inside her (Marshall 1957). It is controlled by ritual and influences the weather, and there is a continuous interaction between a person's *n!ow* and the rain/water (Marshall 1957; Bieseke 1993). *N!ow* exists in the bodily fluid, especially uterine fluids at birth, in people and in some animals, bringing rain if constructive and adverse weather if negative (Marshall 1957). The Nama, Korana and other Khoekhoe groups hold similar views to the San about water or rain as a living entity (Hoernlé 1921/1922; Hoff 1997). Fertility and the essence of water were crucial elements of the rain ceremony among the *!aunin* or Topnaar 'Hottentots' (Hoernlé 1922), where the rainmaking ritual included the killing of pregnant female animals and the draining of uterine fluids into the river. The issues of time and space were resolved in the fundamental nature of the ritual and the association with water, which relates to possible depictions of the initiation of women in the rock paintings throughout the Klein Karoo (Rust 2008).

The explanatory emphasis is thus centred on female initiation, rainmaking and birthing/origins, and the associations that lie with femininity in the rock art. The structured renderings of the imagery (cf. Figs. 1, 2 and 3), show meaningful ritual: the figures of women inferring ritualised and transcendent behaviour. The positioning of the eland in Fig. 1 in such close proximity may suggest the nexus of girls at puberty during the eland bull dance (Lewis-Williams & Dowson 1989). Apart from the interconnected commonality of San belief, ritual and myth over time, when a girl reaches maturity the ritual of the dance also has importance among the Khoesan of the Northern Cape and the Kalahari. Traces of this have survived to this day and originated among the Southern Bushmen (Bleek 1928: 27; Hoff 1990).

In the 1920s, Dorothea Bleek's philological Bushman research in the Kalahari also included the */nu //en* (Auen) of the /Xam-ka !ke (!ei) Bushmen of the Cape

Colony (Bleek 1928: 3). She describes the dance of a Bushmen girl's initiation ceremony and reported that when a girl reaches puberty, the eland bull dance was danced (Bleek 1928: 23). The girl was brought from the special hut she occupied during her menses and danced naked, exposing her buttocks. Usually, two elderly men joined the dance wearing karosses. The girl is 'danced out' every night until her period has passed. Bleek reports that the Auen 'hold this dance in the same manner' (Bleek 1928: 23).

Schapera (1930: 120) describes the puberty ceremonies among the San as having influenced other cliques in southern Africa. The long confinement of the girl in all likelihood ended with a dance (Hewitt 1986). Although the pattern may have differed, the 'menstruation dance' was performed throughout. Among the !Kung of the Kalahari the eland dance (menstrual initiation dance) was performed during the puberty ritual (Marshall 1965: 265; Bieseke 1993; Keeney & Keeney 2015). Recent research into the reports by tribal elders on the spiritual practices of the Kalahari Ju/'hoansi (!Kung) in the Nyae Nyae area of Namibia, with particular reference to initiation and the eland dances, indicates that a distinction was made between the first and second creation, with the first appearance of menses being interpreted as an opening to the first creation (Keeney & Keeney 2015). The participants dance naked because this is a sign of being in the first creation. This interaction between initiation and the dance allows people not only to tell stories using their bodies, but to do so while synchronising their movements with others in a way that nurtures social cohesion in their beliefs.

In the Northern Cape the girl is 'danced out' of her social seclusion when she participates in the //ke dance with her group (Hoff 1990: 31; Hoff 2011: 61). Rain may possibly fall as a result of the //ke and bring good fortune to the girl in her 'new' life (Hoff 2011). At this time, it is in the power of the girl to bring on the rain. One of Hoff's informants explained: 'As die meisie uit die hok kom, reën dit: sy het mos die reën loop haal lyk dit'. (When the girl alights from the hut [initiation hut] she *fetches/causes* the rain (Hoff 2011: 46). In the Klein Karoo the connection between the menses of a girl and *Watermeide* is made by Sappie Kleinbooi and other informants (Kleinbooi 2004; Rust 2008).

It is tantalising to note the homogeneity of the term among indigenous folk in the Northern Cape, as reported by Hoff (2011). In the 1870s, Diä!kwain, the /Xam informant, after seeing a copy of a rock art painting (shown to him by Lucy Lloyd) of a procession of figures (one man, five women and a steenbok) explained it as the //ke:n dance (Bleek 1935: 11). Although the dance may not be an initiation ritual, Diä!kwain's explanation touches on the !gi of the sorcerers, learnt during this dance. In the Bushman

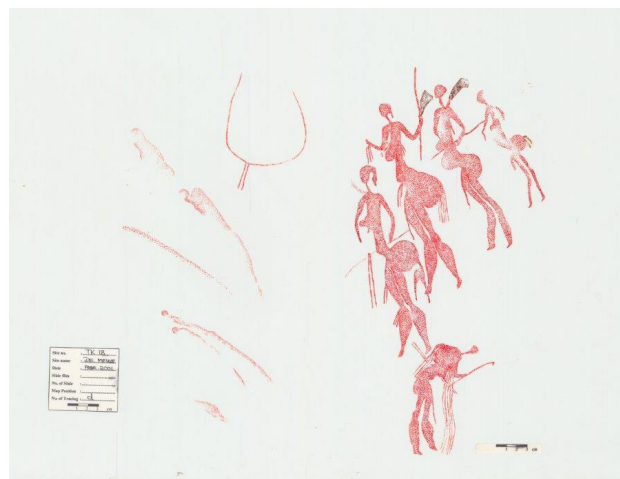


Fig. 2: A group of female figures at a site in the Towerkop Nature Reserve, Klein Swartberg, with sticks and fly whisks in ritualised postures. They wear caps, leggings and trimmings as decorations, have pointed breasts and large buttocks with coverings/flaps.

Dictionary, Bleek (1956: 569, 320) translated //ke:n (progressive spelling) as 'magic, sorcery', a focus of potency, and groups the words /ko:öde and !gi with //ke:n as 'magic things'. The figures are dancing //ke:n. In the Kalahari the dancers are known to dance eland potency (Lewis-Williams & Challis 2011). Is this another manifestation of the same?

Rites of releasing potency and 'magic power' are still in place today to counteract the dangers associated with water and being near water sources when a girl is with menses (Bleek & Lloyd 1911: 199–205; Rust 2008; Hoff 2011). Thus, from /Xam times to the present, young menstruating women have been subjected to strict social prohibitions and are guided by the elders in ritual activity. Hoff (2011: 44–45) reports that in the Northern Cape, during ritual cleansing as part of the initiation ritual, the girl was smeared with ochre mixed with buchu and fat, and her face was decorated with red and black spots, referred to as 'moles'. In some cases the blood of a lamb mixed with ground charcoal was used to make the red and black dots. The girl's legs were decorated with dots and cross marks.

Waldman (1989) reported on the cleansing rituals of the Griqua, Korana and Nama in the Northern Cape. The decorations on the faces of the initiates consisted of dots on their foreheads, noses and chins, and rows of dots on their cheeks in red, black and white. The menarche ritual, according to Waldman, was still the most important and active ritual in the region. Webley (1997: 187) suggests that circles and dots are designs more frequently associated with women. According to her, the negotiation of power between the sexes was structured through rituals such as the rain ceremony and the girl's initiation rite. The use of red ochre in these rituals was paramount and denoted life and wellbeing when applied to body parts and especially the face (Anderson 1997). Among the /Xam girls'

puberty observances, the initiate gave the women of her group red ochre to apply to their cheeks and their karosses.

Context of the ritual

Within this context of puberty and initiation rites, a need is evident to take another look at the extent of the manipulation of rock art sites and the content of images. The rock art of the Klein Karoo, the Langeberg and Outeniquas features finger dots and stripes that are either grouped, placed in rows or clustered in round and angular sets, often superimposed over older art but mostly individually daubed amongst red, black, yellow and white fine-line paintings. These dots and stripes often surround depictions of human figures in dance postures or are grouped as dancing figures in the rock art. At times these human figures are easily defined as women because of a show of breasts and coverings over the buttocks (Fig. 2). In the rock art of the research area, women are often grouped and wear decorations, trimmings and caps that may suggest items donned for a ritual dance (Fig. 3; Bleek 1935).

Rock art sites may have been used more frequently for the initiation of young women than has been suggested in interpretation. Within an eclectic explanation of the structure of the art, feminine symbols are shown in imagery on the rock face. The female figures at a site in the Towerkop Nature Reserve, Klein Karoo (Fig. 2), are naked, show breasts, have distinct coverings/flaps over their buttocks, carry ceremonial sticks and fly whisks, have trimmings on their arms and legs, and are shown wearing caps with lengthened

peaks. The depiction of caps may have significance as it is reported among the Kua that a female initiate must wear a skin cap during the initiation ritual so as not to bring misfortune or prevent the rain from falling (Viestad 2014). Reporting on research among the G/wi and G//ana in the Kalahari, Viestad refers to the eland dance performed after a girl's first menstruation. The women were naked except for a tiny apron over their genital regions. This feature is clear in the imagery shown in Fig. 2. Performing the eland bull dance brought rain (Lewis-Williams 1981: 50). For the /Xam, a 'new maiden' reaching sexual maturity was associated with rain, especially fresh rain, *!khwa: //ka:n*. Among the !Kung, the deity *//gawa* is equated with !Khwa of the /Xam (Schapera 1930: 187), a rain being full of potency. A dance ritual similar in context was danced in the time of the /Xam and the observations and recordings of aspects of an eland bull dance made by the Bleeks in the 1870s are paralleled to the modern ethnography of the Kalahari and Northern Cape (Lewis-Williams 1981; Hoff 2011).

The centuries-old traditional views, as recorded in the ethnography, of female initiates and the associations with water, the rain, fertility, good fortune and social coherence, may be linked to San rock art. Besides the physical features that point to this in depictions on the rock face, ritual behaviour at a site may have had a similar significance. I postulate that by touching the rock face with their fingers full of paint, *!lhára* – black or *ttò* – red (Bleek & Lloyd 1911: 375–379), at times on top of older paintings, the *new maidens* deployed their powers of association with water, the water pits in the mountains, the embodiment of !Khwa



Fig. 3: A site in the Attakwaskloof, Klein Karoo, showing a row of human figures, some with head dresses. Some, probably female, are seated in an 'enclosure' shown with a cupola line and are surrounded by digging sticks with perforated stones wedged into place, sticks and skin bags.

and his rain things, the eland and rain animals during ritualised conduct at a rock art site. A girl with menses had a power that enticed the wrath of *!Khwa*, which could only be allayed with ritual behaviour. More than just a rite of passage for an individual girl, the puberty ritual had far reaching consequences of well-being and good fortune for the community as a whole. This event was of significance in the prehistory of the /Xam and is still so today in the Northern Cape (Hoff 2011) and the Klein Karoo among the storytellers of the myth of the water maidens (Rust 2008; Rust & Van der Poll 2011).

The dot-like entoptic images were most likely seen by the girls/women when they danced the puberty rite. They were possibly experiencing altered states of consciousness in a lighter stage of transformation, known as hypnagogia, when these signs or form constants played across their vision (Lewis-Williams & Dowson 1989) and connected their inner life-changing visualisations and the powers that their status quo projected. The application of finger dots and stripes either to their faces or to the rock face had the same significance and meaning. Although the colour red dominates in the rock art of the Klein Karoo, the finger or painted dots may be in black, yellow or white as well (Rust 2008).

Comparative example from Tanzania

The daubing of dots on faces and stripes on other parts of the body occurs throughout southern Africa, and also elsewhere in Africa. The Sandawe women in Tanzania, a hunter-gatherer group, tenuously linked to the Khoisan (Morris 2014), still today daub facial dots on initiates during fertility rites associated with the moon since the lunar cycle is associated with the menstrual cycle (Ten Raa 1969). In this group, dot-like facial scarification represents the new moon or the full moon, which in turn is associated with water, rainmaking and fertility. When the moon has grown sufficiently, the fertility rites of *phek'umo* are held. This is a dance organised when girls have their menses. Ten Raa (1969) states that the *phek'umo* is similar to the eland bull dance of girls' puberty rites among the north-western Bushmen. The reference here to menstruation and initiation rites may be considered to validate the finger daubing practice at rock art shelters during a ritual performance, confirming the possible role of finger dots or daubs in rock art as indicators of initiation rituals performed near the art.

Other researchers have also offered interpretations of the enigmatic finger-painted and dotted images in rock art. It is suggested that females depicted in rock art in the Cedarberg and the Koue Bokkeveld in the Western Cape are closely associated with finger smears, dots and handprints (Anderson 1997). Imagery is produced on the rock face with shared intent and is thus placed with deliberation (Lewis-Williams & Dowson 1989). In the rock art sample of the

Klein Karoo and surrounds, black dots and red dots are sometimes juxtaposed or even superimposed, black dots on red dots or vice versa, which indicates deliberate reflection when placing the finger on the rock face and near or over older paintings (Rust 2008). Anderson (1997: 57) suggests that 'handprints, finger dots, finger smears and crayon lines' are related to menstruation or menarche rites, and goes on to say that 'hand-related images may be viewed as symbols, or metaphors, signifying areas where the menarche and/or menstruation rites occurred'. Solomon (1992: 291) argues the significance of femininity in rock art: 'The interlinked theories of gender, sexuality and rain appear to be as important in the art as "shamanistic elements" ... and may also relate to ... the female initiation ceremony, social organisation, and the complex notions and practices surrounding gender and female sexuality'. Solomon (1998: 68) strengthens the assertion by stating that 'Some dances – those consisting only of women, ... are perhaps more plausibly linked to initiation'. Gender relations are negotiated through existing structures, indeed gender roles are negotiated within the context of shamanism, which implies the ritual, which in turn essentially implies interaction with the spiritual world.

Supernatural potency

Painted lines or linear stripes on human figures and animals alike in San rock art may represent ornamentation or scarification associated with supernatural potency. Notably, the /Xam descendants in the Northern Cape report that spiritual potency and healing power is acquired by drawing white stripes across the face and legs of initiates (Hoff 2011). During girls' puberty observances of the /Xam, the initiates were expected to paint haematite 'zebra-like' stripes on the young men of their group to protect them from the harm that could be caused by *!Khwa* (Hewitt 1986). In reports by travellers and sailors before 1652, anecdotal accounts are given of Khoekhoe women frequenting caves and using a red stone to colour their foreheads with stripes and crosses (Raven-Hart 1967). Were these early accounts of women near caves an indication of the occurrence of initiation rites and ritualised face markings? Were similar finger-related markings possibly assimilated on cave walls a continuum of the ritual?

Handprints may be seen in the same context, since the frequency of handprints positioned near or over human figures (usually in dance postures) and animals suggests significance and meaning. It is likely that the absorption of power is embodied in the daubing of paint on or near the older rock art. This was a metaphorical fixing of potency on the rock face (Lewis-Williams & Dowson 1989). The daubing of paint by applying the full hand or fingers on the rock face indicates repeated visits to and usage of these sites, as well as a change in the functionality of a site through time (Manhire 1998). Manhire reports

on a predominance of subadult handprints in rock art samples of the southern Cape, which he suggests points to initiation events involving rites of passage. The general assumption has been that rock art has been produced by adult or subadult males. However, in the Upper Palaeolithic cave sites of France and Spain, studies have shown that handprints were made predominantly by females (Snow 2013), in particular juveniles. The size of the handprints and the indication of gender suggest that femininity is significant in rock art and needs to be identified in interpretation.

The diminutive sizes of many handprints in rock art are obvious. Although it is at times difficult to determine the exact digit lengths because of surface irregularities and poor preservation of the paint, the size of positive handprints in the rock art sample of the Klein Karoo and south of the Langeberg on average ranges from 140 mm to 160 mm from the midpoint of the crease at the base of the palm to the tip of the middle finger. The palm usually is printed more fully than the fingers. The sizes recorded in this region by Rust (2008) correlate with measurements obtained from a living population study in the Klein Karoo. The average size of handprints among participants in the Henneberg and Mathers survey (1994) among school children in the Klein Karoo was between 130 mm and 160 mm for children aged between nine and 14 years. This age range accords with initiation probabilities. Hoernlé (1923) determined that puberty occurred among Nama girls between 13 and 15 years. Initiation rites among !Kung girls occurred at an age of 16 years and younger (Bieseles 1993). Schapera (1930) noted that the puberty rites had not changed for over 150 years.

Conclusion

Water and fluids as puberty themes are still a strong factor among indigenous peoples today, indicating the significance of this rite from prehistory to the present. Puberty rites have been and are still important in social institutions because of the connection between being on the threshold of giving life, birthing fluids, the quintessence implication of menses and the life-giving properties of water. Rain animals and the rain's things are consistent themes in Khoisan mythology and in rock art imagery. There is a superfluidity of beliefs with regard to the hybrid origins of the water bull, the water snake and the water source. To interpret the femininity in rock art within the context of specific places such as the rock face, it is essential to do so within shades of gender identities, represented by a multiplicity of interpretations and associations of the ethnography. I have focused mainly on women and the eland, the 'mystic women', the mythological themes of water and femininity, and San values of gender and femaleness, but the variability in the art underlies a final holistic interpretation. The paintings are not illustrative of the myth but there is even now

value in reflecting on the narrative in reading the rock art. The art is acted out in ritual. It remains to be asked whether gender is not sometimes overlooked in the interpretation of rock art.

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ARCHAEOLOGY IN AFRICA

Common genetic condition in human evolution

Genetic diseases are fairly common today, with more than one in 25 children being born with one. But the evolutionary history of such conditions is mysterious. Which genetic disorders were common in our ancestors and why? And do they still exist? Now we have discovered the earliest-known common genetic condition in human evolution in the two million-year-old *Paranthropus robustus* species, which frequently had severe tooth defects called pitting enamel hypoplasia.

Remains of *P. robustus* have been found in abundance in several South African caves, all situated within the Cradle of Humankind. The majority of specimens are isolated tooth and jaw fragments, but there are also some magnificently preserved skulls and bones from other parts of the body. The *Paranthropus* genus as a whole were remarkable members of the human family tree. Individuals had extremely large back teeth, as well as massive jaws and cheeks – features thought to have evolved so they could cope with a diet rich in tough and fibrous vegetation. Some individuals even had ‘sagittal crests’, a ridge of bone running along the midline of the top of the skull, thought to have evolved to anchor their extraordinary jaw muscles.

Genetic conditions are rarely identified in the fossil record for several reasons. Once one gets past 50 000 years or so ago, it becomes very difficult to get DNA samples from specimens, which means one has to rely on markers left on bones and teeth, which significantly limits the types of genetic conditions one can identify. The frequency of specific genetic conditions varies among species and populations, and some can be particularly prevalent in certain groups. Thanks to an ever-growing sample of archaeological hominin remains, some genetic conditions may nevertheless show up if the condition was prevalent.

In our study, published in the *Journal of Human Evolution*, we report the earliest example of a group with significantly higher occurrence of a genetic condition than occurs in people today. Amelogenesis imperfecta affects only about one in 1 000 people now, whereas roughly one in three *P. robustus* individuals suffered from it. Out of several hundred teeth, over half of baby molars had pitting defects, as did a quarter of adult molars.

The condition would have significantly impacted diet and behaviour, since such defects in the enamel can lead to extreme tooth wear and dental cavities. This likely partially explains the surprisingly high rate of dental disease found on *P. robustus* teeth. If this condition had negative consequences for the individual, why did evolution through natural selection allow it to persist so commonly for over a million years? The answer likely goes back to *Paranthropus* evolving extremely large molars in a short period of time. Pressure on this group to increase the size of their back teeth was clearly strong and led to significant genetic changes. This process may have led to instability in crucial genes or had side effects on other features that share these same genes, called pleiotropy.

For example, the gene ENAM is associated with variation in tooth properties such as enamel thickness. Mutations in this same gene are responsible for many types of amelogenesis imperfecta. Therefore, genetic changes linked to the evolution of thick enamel and large back teeth over a short time, may have created knock-on effects in genes such as ENAM, leading to high rates of pitting defects. Clearly this trade off was worthwhile since this group of hominins were widespread in Africa and even survived alongside early members of our own genus for hundreds of thousands of years.

Ian Towle, Liverpool John Moores University, 29/03/2019

CALL FOR APPLICATIONS FOR RESEARCH GRANTS FROM THE KENT AND WARD FUND

The **Kent and Ward Fund** was established as a result of two generous bequests by long-term members of the SA Archaeological Society. The first, in 1992, was from the late Dr Leslie Kent, a geologist in Johannesburg, while the second, in 2017, was from the late Valerie O'Hagan Ward, who organised the society's branch in KwaZulu-Natal for many years. The society has invested the income and the interest is distributed from time to time at the discretion of the society for contributions towards:

- i Financing of field work
- ii Research projects
- iii Analysis of archaeological material
- iv Publication or supporting the publication of the results of research

The Society invites applications for 2020 for awards in all categories. Please read the following guidelines and instructions carefully before completing the application form.

Guidelines

- The work must be conducted in southern Africa.
- Preference will be given to researchers domiciled in southern Africa.
- Preference will be given to researchers who are starting a career in archaeology.
- Projects may include archaeological work of any kind that enhances our knowledge of the lifestyle of humankind in southern Africa, such as excavation, rock art recording, site recording, artefact or faunal analysis, identification of plant or animal remains, dating, surveys, physical anthropology, analysis of archaeological collections in museums, experimental archaeology, and archival or bibliographic work.
- Proposals may also include the publication of the results of research that popularises archaeology for public education and community awareness.
- The fund will not contribute to purchase of expensive equipment such as cameras, microscopes or laptops for the analysis of results, or to living expenses during the writing of reports or publications.
- Successful applicants will be required to provide a digital copy of the report on work completed or submit a paper for publication to the *South African Archaeological Bulletin* or *The Digging Stick*.

Application forms are available from the Secretary, SA Archaeological Society, PO Box 15700, Vlaeberg 8018; tel. (021) 762 7347; archsoc@iziko.org.za, and must be submitted before **31 October 2019**. All applications will be refereed by specialists.

The successful applicant/s will be notified by 10 December 2019.

Prof. J Deacon, Secretary, SA Archaeological Society

CALL FOR 2020 NORTHERN BRANCH GRANT APPLICATIONS

The South African Archaeological Society's Northern Branch invites applications for funding for 2020 by researchers and educators in the field of archaeology. South African archaeological research projects and educational programmes that promote the knowledge of and the understanding of archaeology will be given consideration. The deadline for applications is **30 November 2019**.

Awards may be split over more than one project and the decisions by the Northern Branch's committee will be final.

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 for which funding is requested form part of a larger project, information on how the part that is to be funded 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 is to be supplied for publication in *The Digging Stick*.

Applications should be forwarded by email to the Secretary, Northern Branch, SA Archaeological Society, at secretary@archaeology.org.za, or to PO Box 41050, Craighall 2024.

Enquiries may be directed to Reinoud Boers, fox@boers.org.za, tel. 011 803 2681. The successful applicant/s will be notified by the end of December 2019.

DYNAMICS OF THE PALEO-DIVERSITY OF *HOMO SAPIENS*

J Francis Thackeray

Scerri et al. (2018) appeal for a synthesis of paleontological, archaeological, genetic and palaeoenvironmental data with regard to the evolution of *Homo sapiens* in the Late Pleistocene on the African continent. The study serves to challenge the prevailing perspective that the human species evolved in a single population or region of Africa.

Clearly there is now a need to integrate data that will serve to enhance an understanding of the dynamics of human evolution, whereby palaeoclimates contribute to changes in habitats, in turn influencing the distributions and abundances of hominins and other taxa, subsequently affecting variability in gene pools that will then influence morphology.

This perspective was already held by me (1995) in that year when I made the following statement in the context of Heisenberg's 'Uncertainty Principle':

'All modern humans can trace their origin to descendants of *Homo erectus*, but both the ancestral populations of *H. erectus* and the descendant populations of *H. sapiens* have expanded and contracted in response to many climatic and habitat changes, with the result that the very concept of "origin" in the context of gene pools can never be precisely determined; continuity occurred in some areas, replacement occurred in other regions, but the net effect was a very high degree of morphological variability within the single species which we today refer to as *H. sapiens*.'

Within the last five decades, the Late Pleistocene fossil record for *H. sapiens* has been expanded with discoveries not only in South Africa (at sites such as Klasies River Mouth (Singer & Wymer 1982; Grine et al. 2017), East Africa (including Herto in Ethiopia, White et al. 2003) and North Africa (at Jebel Irhoud, Hublin et al. 2017). All of these specimens are assumed to represent one human species. But in what manner can one quantify morphological variation within *H. sapiens* and, when one goes deeper in time, at what point does one distinguish *H. sapiens* from *H. erectus* or other related taxa?

One avenue for exploration is to consider a probabilistic definition of a species instead of assuming that there are clear boundaries between taxa, as if they were black or white (i.e. alpha taxonomy). An alternative concept is 'sigma taxonomy', where sigma stands for

spectrum, which relates to a continuum of variation in ecological space and time (Thackeray 2016).

Thackeray & Odes (2013) introduced the concept of 'palaeospectroscopy', whereby it is recognised that there are not necessarily clear boundaries between species, as in the case of hybridisation (Thackeray & Schrein 2017). This concept has been associated with morphometric pairwise comparisons of measurements (of crania, dentition, etc.) using least squares regression analyses (Thackeray & Dykes 2016).

Such analyses have the potential to facilitate the quantification of the degree of anatomical variation in the context of a dynamic process, whereby morphology relates to episodic variation in gene pools, which themselves are related to pulses of change in the distribution and abundance of taxa, influenced if not determined by habitats that are in turn affected by palaeoclimates. Such a dynamic process does not need to assume clear boundaries between species. This perspective relates directly to the appeal by Scerri et al. (2018) for an integrated approach, which should ideally be adopted in the context of a concept such as sigma taxonomy (a probabilistic concept) as opposed to the prevailing use of alpha taxonomy.

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CORRECTION

In the April 2019 lead article by Susan Pfeiffer, headed 'Southern African past foragers', an incorrect photo showing the temporal bones (ear region) of a newborn infant (Groot Kommandokloof, 3200 BP) was printed at the top of page 3. The correct image

of the base of the skull of the boy from KZN (Ballito Bay A, 1980 BP) is provided here. With apologies to the author.



The base of the skull of the boy mentioned in the article. The best sources for ancient DNA are the pulp cavities of teeth and the bone that surrounds the inner ear, marked here.

ARCHAEOLOGY IN BRIEF

Huge fossil find in China's Hubei province

A huge fossil discovery, estimated to be about 518 million years old, has been made near Danshui River in Hubei province. The discovery is particularly unusual because the soft body tissue of many creatures, including their skin, eyes and internal organs have been 'exquisitely' well preserved. In addition, more than half the fossils, known as the Qingjiang biota, are previously undiscovered species.

The majority of creatures are soft-bodied organisms like jellyfish and worms that normally stand no chance of becoming fossilised. The Qingjiang biota must have been 'rapidly buried in sediment' because of a storm in order for soft tissues to be so well preserved. The fossils are from the Cambrian period, which began 541 million years ago and saw a rapid increase in animal diversity on Earth.

Most of the major animal lineages were established in the Cambrian explosion, the likes of which has not been seen before or after. Details of the find were published in *Science*.

BBC News, 24 March 2019

The Cape Gallery, 60 Church Street, Cape Town

seeks to expose fine art that is rooted in the South African tradition, work which carries the unique cultural stamp of our continent. Rotating exhibitions add to the diverse and often eclectic mix of work on show.

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This image reflects antic Greek mythology – one of the three fates who spun, wove and cut the life thread. They represent the three phases of a woman: nymph, matron and hag. The lino engraving is remarkably finely cut and printed in an edition. Judy Woodborne graduated cum laude from Michaelis School of Fine Art, achieving her MA with a dissertation on Folly.

Featured artist: Judy Woodborne

Title: The Weaver Bird

Size: 57cm x 47cm

Media: Lino engraving

FORAGER CRAFT ACTIVITIES AND LANDSCAPE PATTERNS IN THE MIDDLE LIMPOPO VALLEY

Tim Forssman

Forager lifeways in the middle Limpopo Valley were considerably altered from AD 350 onwards when farming communities first settled the region. Changes in behaviour, including shifts in settlement behaviour and activity patterns, have been recorded at several sites. The likelihood that such change is expressed regionally is predictably low and it is expected that various responses to farmer contact can be identified at different forager-occupied sites.

This article presents the results from two use-wear studies from contemporaneous Later Stone Age (LSA) sites that demonstrate significantly different responses to contact and trade or exchange with farmers. At Dzombo Shelter in Botswana an intensification of hunting activities occurred from the early first millennium AD until the beginning of the second millennium. Over the same period, at Little Muck Shelter, approximately 27 km away in South Africa, specific craft activities were performed for which a different set of tools were required. In both instances it appears these differences were linked to local mercantile relations that were at play in the valley. The study results provide insights into foragers' elective responses to farmer contact and their autonomy during widespread and large-scale socio-political developments in the valley.

Background

The middle Limpopo Valley includes eastern Botswana, northern South Africa and south-western Zimbabwe (Fig. 1). It is a well-known region for its Iron Age sequence and notably the appearance of southern Africa's first state-level society with its capital at Mapungubwe. A series of developments and feedbacks occurred prior to the establishment of the Mapungubwe state, which include the acquisition

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Fig. 1: The middle Limpopo Valley showing sites mentioned in the article and other prominent sites

and accumulation of foreign trade wealth, the growth of cattle herds owned by elite members of society, the gradual growth of political and authoritative control in the region, and the establishment of a direct link to the ancestors through practices such as rain control (Huffman 2015). All of these developments were witnessed by an incumbent forager population.

The earliest evidence of an LSA occupation in the region has been identified at Balerno Main Shelter (van Doornum 2008). Here, forager material culture dates to c. 12500 BP. Significant hiatuses followed and during one of these, around c. 6750 BP, Tshisiku Shelter was first occupied (van Doornum 2007). However, while a forager presence on the landscape prior to c. 400 BC is fairly thin, from the last centuries BC many more sites were occupied, making the forager presence significantly more visible.

Dzombo and Little Muck Shelters

It is this period that is of interest here. While the various sites that were occupied from the final centuries BC until the beginning of the second millennium AD – Balerno Main, Tshisiku, Balerno Shelters 2 and 3 and Mafunyane – reflect a range of occupation and activity habits, it is Dzombo and Little Muck Shelters that are particularly intriguing. Use-wear studies aimed at identifying visible traces on the surfaces of stone tools to identify activity and behaviour patterns have provided a detailed account of forager livelihoods at each site.

Both shelters occur in similar contexts. Dzombo is

located near the confluence of the Moutloutse and Shashe Rivers in the vicinity of Mmamagwa, a large Iron Age settlement occupied from probably at least AD 900. The shelter is located in a koppie situated in the mopane (*Colophospermum mopane*) belt. Little Muck's context is much the same. It too is located near a water source, the Kolohe River, and is less than 1,5 km from Leokwe Hill, which is a large Iron Age settlement occupied from the mid-to-late first millennium AD. The shelter is surrounded by mopane veld and behind it is a riparian environment along the river (Hall & Smith 2000). Both sites were occupied contemporaneously, from at least the last centuries BC until after AD 1000. Despite being 27 km apart, the social and ecological contexts at each site are broadly comparable, and yet their archaeological sequences are quite different.

At each, incongruent tool preference patterns were recorded. From Dzombo's 'pre-contact' layers, scraper and backed-tool frequencies were fairly equitable. However, from around AD 100, when foragers began interacting with farmer communities, the frequency of backed tools increases significantly and they eventually dominate the formal tool assemblage in the Zhizo period from AD 900 to 1000 (total n=56). Thereafter, scrapers become more frequent, but all artefact frequencies decline massively. At Little Muck a similar trend has been noted except with scrapers (n=396 versus 27 backed tools; Fig. 2). Before c. AD 100, scrapers were fairly common but increased significantly from the beginning of contact with farmers and continued to do so until AD 1000 when they, like all other artefacts at the site, drop off almost entirely (Fig. 3). It is thought that during this period relations with Leopard's Kopje ceramic producers, who would establish Mapungubwe, may have disrupted forager lifeways so thoroughly that their traces become barely discernible on the landscape. Why, though, was there such a difference in the archaeological assemblages from each site?

To answer this, a macro-analysis was conducted on the backed tools from Dzombo and the scrapers from Little Muck. The backed tools were investigated for diagnostic impact fractures (Forssman 2015) and the scrapers were examined for polish, macro-fractures, edge damage and rounding (Forssman et al. 2018). In both cases, good evidence for different activity and production patterns were identified.

At Dzombo, a large proportion of backed tools were found to have diagnostic impact fractures. This included step-terminating bending fractures, unifacial and bifacial bending fractures, impact burinations and notches, which may or may not relate to impact events. Most impact fractures seem to be hunting-related. However, if this is indeed so, it appears slightly odd that the site's faunal assemblage remains unchanged over the course of the site's occupation.

At Little Muck, use-wear types suggested that rigid materials were worked, as indicated by greasy polish, considerable edge rounding, edge damage and stepped flaking along the working edge. Only two artefacts possessed evidence suggesting possible hide working. However, rigid materials form use-wear far more rapidly than soft pliable material like animal hide and the secondary use of scrapers might obscure or delete any hide-working-related evidence. Therefore, it seems that a range of crafts were produced at Little Muck, including the working of hide, wood and bone.

Most of the use-wear evidence from Dzombo and Little Muck came from first-millennium AD levels (Table 1). The changes really only begin at around AD 100, when foragers began interacting with farmers either in the valley or nearby. This increased until the end of the Zhizo period. But, not only did backed-tool and scraper numbers increase, so do traces of use on these artefacts. This suggests that activities were intensified during the first millennium AD. In other words, during this period not only were there more backed tools or scrapers but these were being used more often or more exhaustively than before. It is also interesting that at each site, not only are there different activities being preferred but these occur simultaneously. There appears to be a mosaic of reactions to farmer contact during the first millennium AD. What does this say about social relations in the valley and the role of foragers in their interaction networks?

Trade, contact and resilience

At both sites, the regular and increasingly more abundant appearance of trade and exchange items and farmer-associated artefacts occurred. This happened not only here but also at other sites like João and Mafunyane during the same period. Indicators of trade included ceramics, glass beads, metal implements, organic beads, worked bone and LSA stone tools

Table 1: The distribution of backed tools, scrapers and use-wear at Dzombo and Little Muck Shelters, respectively. Bold indicates first millennium AD levels.

Period	Total tools	Use-wear	% present
Dzombo Shelter (backed tools)			
Leopard's Kopje	17	11	64,71
Zhizo	17	12	70,59
Early contact	15	13	86,67
Pre-contact	7	2	28,57
Little Muck Shelter (scrapers)			
Leopard's Kopje	35	7	20,00
Zhizo	185	109	58,92
Early contact	142	66	46,48
Pre-contact	32	11	34,38



Fig. 2: Examples of end (top), side (middle) and circular (bottom) scrapers from Little Muck Shelter

(Fig. 4). The regular appearance of receivables and items associated with the production or acquisition of trade goods indicates systemic and not opportunistic acquisitions of trade wealth. Forager involvement in the dominant mercantile system included them in the wealth distribution network. As participants they received exotic wealth, the basis upon which farmer state-level society formed. It may be very significant that valued items such as glass beads appear in forager contexts.

These results and the findings from other sites in the area, especially places like Balerno Main, João, Kambaku Camp, Tshisiku and Mafunyane, generate some very interesting talking points. They

allow us to consider forager autonomy and resilience, their access to wealth and social status or even eminence, and widespread social relations in the valley. How these all relate to what was happening in other parts of central southern Africa is also something that is worth exploring.

First, there appears to be idiosyncratic change across the landscape. Foragers did not respond equally to contact with farmers. At Dzombo and Little Muck we see different activities being preferred and intensified. At Balerno Main, though, gathering or aggregation was occurring before contact began and continued until the decline of Mapungubwe. In other words, the record indicates little change in forager activities at Balerno Main, suggesting localised continuity. However, at Tshisiku and Balerno Shelters 2 and 3, artefact densities decline from the early first millennium, possibly reflecting a loss of favour for such sites, or possibly a shift in settlement patterns or even a decline in the local forager population.

Second, it appears that internal mechanisms and decision-making were at play in forager society. Foragers were able to elect their responses while participating in farmer networks and systems. This could reflect a degree of autonomy or self-determination among foragers despite massive social

change and development in farmer society, notably the appearance of the Mapungubwe state and other major settlements in the area.

Third, these shifts might provide interesting insights

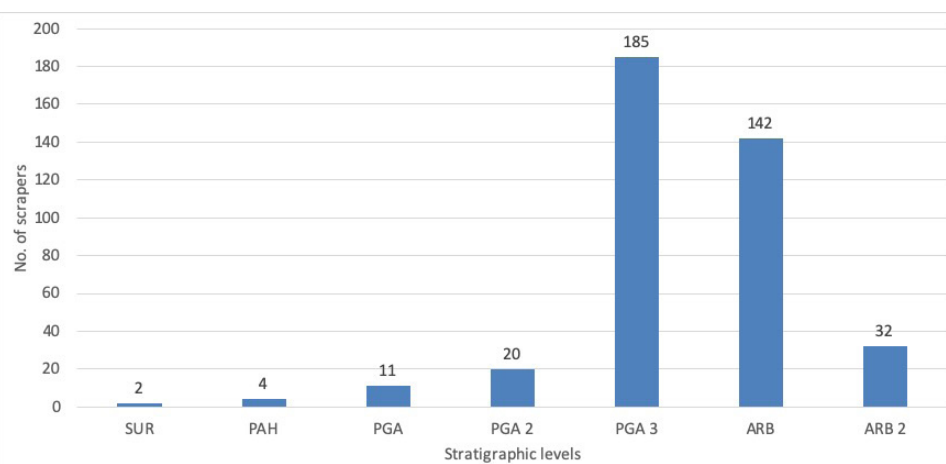


Fig. 3: Scraper figures from Little Muck Shelter: ARB 2, pre-contact with farmers; ARB, early contact; PGA 3, Zhizo period; and PGA 2, PGA and PAH, Leopard's Kopje period

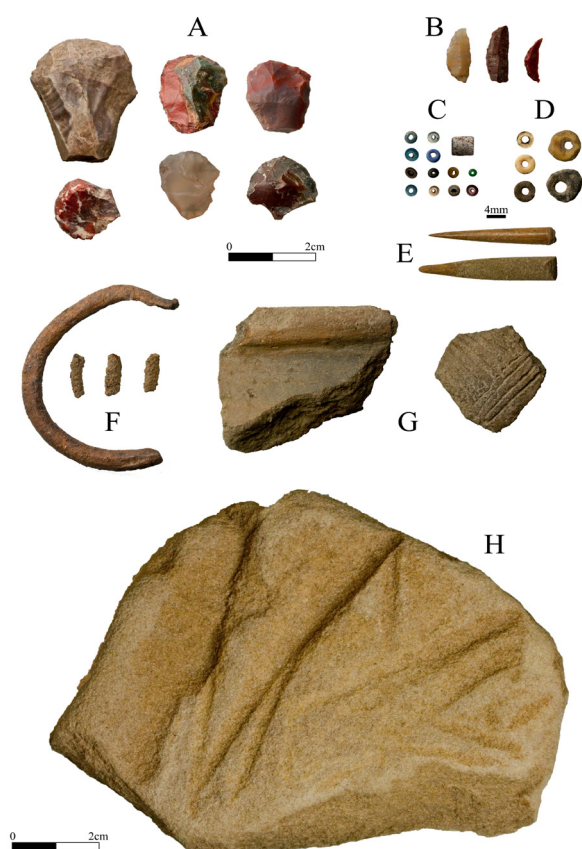


Fig. 4: Items associated with trade and exchange: A, scrapers; B, backed tools; C, glass beads; D, ostrich eggshell beads; E, bone tools; F, metal ornaments; G, ceramics; and H, grooved stone.

regarding the Kalahari Debate, which has centred around the autonomy of foragers, the pristinity of their culture and the application of ethnographic information in archaeological contexts. The debate has largely revolved around in which period change occurred in forager society: whether at the time they met farmers (revisionists) or in the mid-twentieth century (traditionalists). In the Mapungubwe area, change seems to have been irregular and elective, not forced. The dichotomy of the two Kalahari Debate camps is not very effective at capturing forager response. Perhaps, we need to look in other directions and begin to think about these changes in a post-colonial context that provides foragers with more agency and responsibility in terms of nominating change in their society.

Lastly, following on from the previous point, viewing these changes in a post-colonial context would generate a more inclusive history of forager participation in socio-political developments. The evidence from the Limpopo Valley indicates a level of forager autonomy, resilience and social continuity despite all the change that was occurring in the region. It does not suggest that foragers were powerless in the face of social and cultural change, but that they were responsible for it and that in some cases their participation in farmer networks may even have led

to forager eminence in local society. For example, at João a staggering 150 glass beads were retrieved in a forager context. This far exceeds the bead figures for any forager site and many farmer settlements as well. The evidence from Dzombo and Little Muck also quite strongly showcases the contributions foragers made to farmer trade or exchange networks. Foragers were very much part of these systems. These points are all worthy of further exploration if we wish to decolonise some of our perceptions of foragers and their participation in local socio-political developments.

Work is continuing in the valley. With additional excavations, rock art analyses and survey work we may yet learn more about the range of reactions to farmer contact. Engaging local communities, notably in Botswana and Zimbabwe where land evictions have not dispersed groups, may yield additional information about forager histories and archaeological sites. While this information would be valuable, community engagement, possibly including the upskilling of participants through their active participation in research and aiming archaeological praxis at community-aligned enquiries into the past, would also benefit not just archaeological knowledge but community interaction with local heritage sites.

This work should not only be about the middle Limpopo Valley. The landscape was part of a much larger interconnected social tapestry. Regions and landscapes were woven together through trade, intermarriage and political exchanges (e.g. Chirikure 2014). Finding the role foragers played within this bigger network and how they used their knowledge system to maintain their lifeways and possibly empower themselves could be a very worthwhile avenue of research. It would build a far more inclusive history of the region and could promote indigenous archaeology if done correctly.

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ELEPHANTHROPES OF THE CEDERBERG

The elephant was the one who first found water so that the people could drink

Andrew Paterson

This article is a continuation of the elephantrope theme discussed in *The Digging Stick* (Paterson 2018). My argument in the previous article was that to the San, the elephantrope, or an elephant-headed person, was an imagined mythological being in the time 'when elephants were people of the early race', rather than a non-real idiosyncratic hallucinatory aspect of a Shaman's vision. I believe that the elephantrope is a unique symbolic link that transcends all aspects of the San's

creativity namely, storytelling, singing, dancing and painting. I regard elephantropes as a central part of the San mythological experience that has been incorporated into the San's healing and transcending dances over the centuries. I cannot agree with the statement that elephantropes are simply once-off 'zoomorphic transformations that the San shamans say they experience in trance and death' (Lewis-Williams 2019).

The paintings included with this article are from a small distinctive San ceremonial site situated on the banks of the Olifants River, between Citrusdal and Clanwilliam. The site was first documented 40 years ago by Richard (Ginger) Townley-Johnson (1979). There are two distinctly different painting arrangements at the site. The first is a group of six elephantropes carrying elongated objects and the second a group of 23 San male figures connected by thin red lines (Fig. 1).

Description of the elephantrope arrangement

- Six elephantropes walk in single file from left to right. They are all in step and leaning forward,

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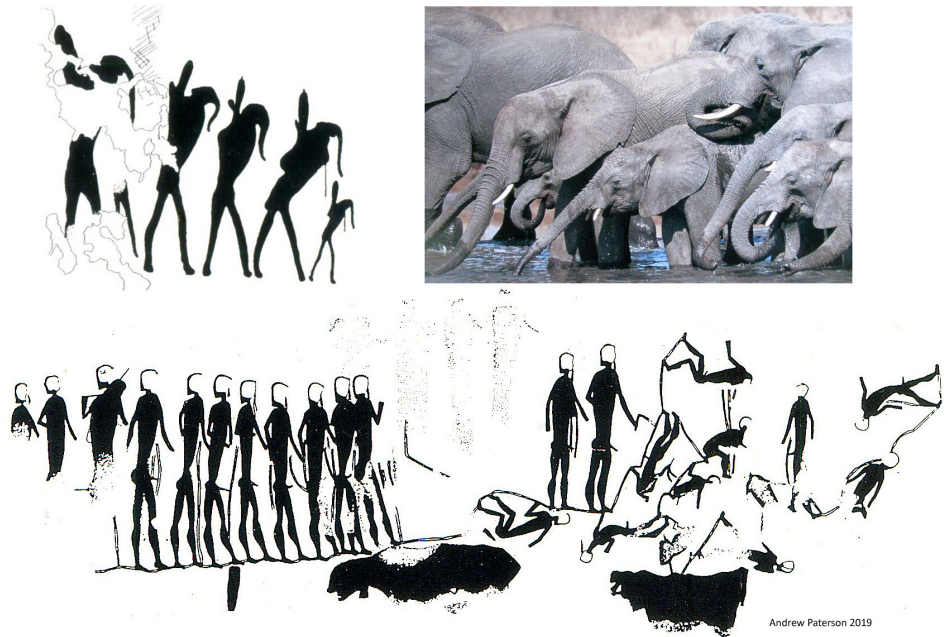


Fig. 1: Tracing of the elephantropes and San males at the site, with an insert of elephants drinking water. Water and survival appear to be the central theme of this rock art site.

- each carrying a bag and an elongated object. Four appear to be adults and two subadults (Figs 1 & 2).
- The figures have elephant heads and feet but human torsos (Paterson 2018). No arms are visible, and it appears that their hands are behind their backs, supporting the objects they are carrying.
- Some of the elephantropes are wearing karosses but none appear to be carrying hunting equipment (bows, arrows, quivers or sticks).
- There are thin red lines hanging down in front of the two front elephantropes.
- Very faint, randomly hatched, open-ended thin red lines are situated above and in front of the largest elephantrope at the rear.
- Each elephantrope head has been painted in exquisite detail, with the exact profile and gesture of a normal elephant's head and trunk. This suggests that they were painted by an artist who had an intimate knowledge of elephants. Each elephantrope body has been painted in the manner that the San paint human figures, with figures carrying objects striding forward in single file.

Interpretation of the elephantrope arrangement

It is important to note that there are no elephants

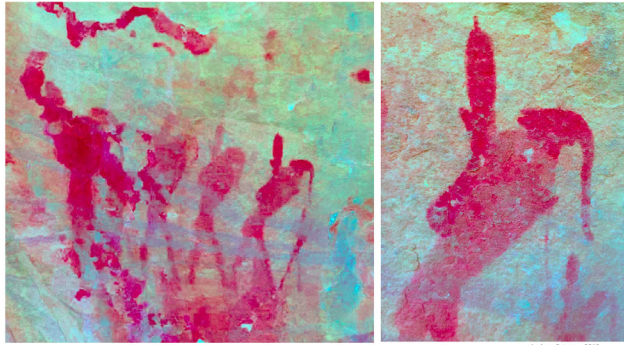


Fig. 2: Enhanced image of the elephantropes taken by the owners of the property (Paterson D-Stretch).

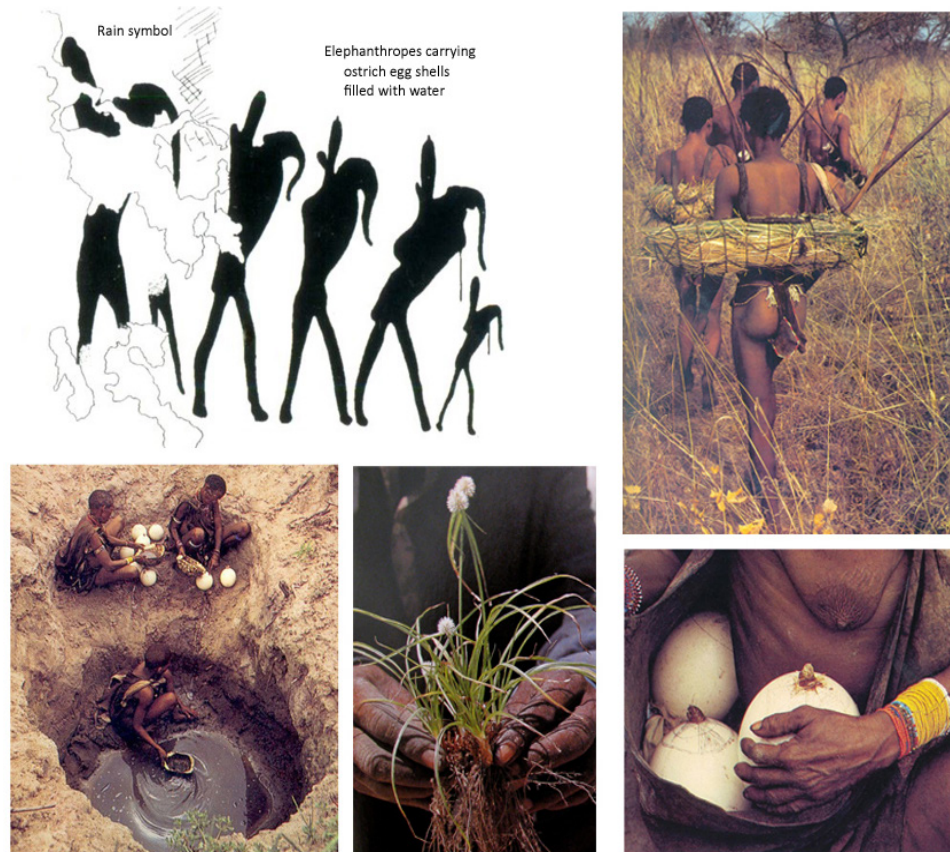
painted at this site. There are only elephant-headed people. It would seem that the key to understanding the elephantrope arrangement would be to identify the elongate objects they are carrying (Fig. 2) and the cross-hatched thin red lines (Fig. 3).

- I would like to argue that the elephantropes are carrying water in ostrich eggshell containers as San men have done for possibly thousands of years. San men stack the eggs on top of one another in a basket made from carrying nets and grass (Fig. 3). Women carry eggs in leather bags slung over their shoulders. This suggests that the elephantropes in this painting are men and boys.
- Once filled with water, the eggshells are plugged with a twisted piece of witbessie root (*Kyllinga alba*), whose antibacterial properties keeps the water fresh for long periods (Van Wyk 2000). The containers would later be stored in caches for use during hunting expeditions (Fig. 6).
- The stacked water-filled eggshells would be tied onto the San's back in a vertical position to prevent leaking while being transported over fair distances to selected cache sites. I argue that the fine red vertical lines hanging down in front of the

elephantropes are an illustration of the thongs use to strap these baskets onto to their backs (Figs 1 and 2).

- In my opinion, the distinctive small nipple like shapes painted on the top of each elongated object are the witbessie plugs pushed into the top of the water-filled eggshells (Fig.3).
- I would also argue that the cross-hatched red lines (Fig. 3) in front of the largest elephantrope are a rain symbol similar to others commonly found in the Cederberg (Paterson 2018).

I have drawn extensively on the mythology and ethnographic accounts of Megan Bieseke (1978, 1993 & 1998) in an attempt to understand the elephantropes in this painting. According to her, there are a number of San mythological stories about the elephant people of the early race. The heroine of these stories (*G!kon//amdima*) has much to



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Fig. 3: Tracing of elephantropes carrying water-filled ostrich eggshell baskets on their backs. Photo images of San filling eggshell containers and plugging them with the witbessie plant. (Johnson 1979). Men carry eggs in elongated baskets while women carry them in leather bags slung over their shoulders.

do with elephants in the main cycle of stories: her father was an elephant and she marries an elephant. Sometimes she is an elephant herself and is called *!Xodi* or 'elephant girl' (Paterson 2018). I regard the description elephant girl as referring to a female elephantrope who behaved like a person.

All of these elephantrope mythological stories are intimately associated with water and rain, which play a critical role in each story, specifically the 'woman's creation story' (Bieseke 1993). However, I believe that the story most aligned with the elephantrope painting at this particular site is the story of the elephant finding water.

'The elephant was the one who first found water and caused the rain to fall. The elephant was the one that said the rain should fall so people could drink water. The elephant then tried to hide his knowledge of the water from the people and drank it alone. His wife found out and when she challenged him, he tried to grab her with his trunk, but her brothers stabbed him so that their spears met this way and that inside his body, so he died. The wife's brothers were the "little birds of the rain"' (Bieseke 1998).

The moral of the story is fundamental to the San concept of sharing. Water is of vital importance to the survival of the San. Failure to share water and the knowledge of its whereabouts is punishable by death.

I argue that the elephantrope painting has been made to illustrate the importance of water in the lives of the San. To survive as a people, the San have to share the knowledge of the whereabouts of water amongst themselves and share the duties of collecting, carrying and storing water for times of need. The elephant is the animal chosen for this painting probably because it is always found close to water and it has the ability to pick up the low frequency vibrations of thunder tens of kilometres away. It is an animal found frequently in association with San-painted rain symbols elsewhere in the Cederberg and has been painted elsewhere as the mythological rain bull.

Description of the San male arrangement

First, it is important to note that there are no figures of women or children in this painting. This is an exclusive male arrangement. Second, the artist has drawn the men on two planes namely a vertical plane of standing figures (rectangle) and a horizontal plane of fallen figures (oblong rectangle) (Fig. 4).

- On the left-hand side of the San arrangement there are 11 standing San males facing right. They are all connected to a set of thin horizontal parallel red lines by red lines extending from their noses and connecting to the horizontal lines below their feet. All the figures are naked and only one member appears to have a bow and quiver slung over his shoulder (Fig. 4).

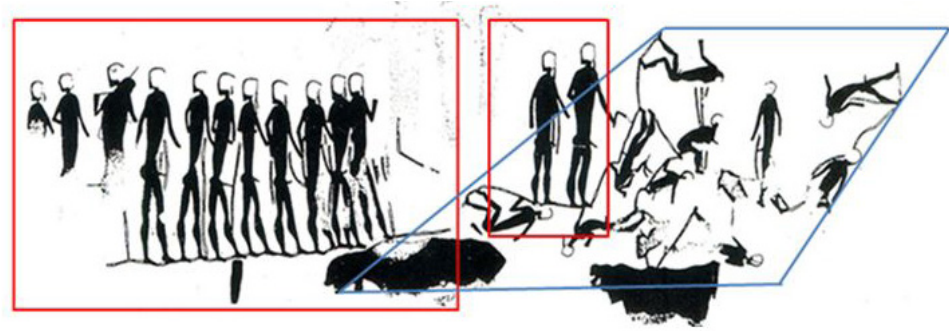


Fig. 4: A San male initiation ceremony being managed by two mentors and involving entering an altered state of consciousness symbolising dying and being born again as a man.

- On the right-hand side, 10 San males lie on the ground, scattered randomly. All the figures are connected to the same set of thin red lines by means of lines attached to their heads, hands or feet. Two standing San male figures stand amongst the scattered figures (rectangle). They are also connected to the same set of thin red lines connecting all the other figures (Fig. 4).
- Below these two groups of figures, two eland torsos appear. They are also connected to the set of thin red lines. Four additional, very faint figures are positioned directly above the gap between the two sets of San figures and also appear to be connected to the same red lines (Fig. 4).

Interpretation of the San behaviour

The behaviour of the San males in this painting suggests a male initiation ceremony in which young San boys are required to undergo a rite of passage during which they die symbolically and are reborn as men.

I have drawn extensively on the ethnographic accounts of Lorna J Marshall (1993) for a description of the San male initiation rite called tshoma to try and understand this painting. Marshall gives the following account:

- The tshoma is a rite of passage that brings the San boys into manhood. Women are strictly excluded from the tshoma rite, and they must avoid saying the name 'tshoma'. While the rite is in progress women must not see the tshoma site even from a distance. Male tshoma *n|om* is so strong that it would bring harm to women.
- Tshoma is held at intervals of five to six years. The group of boys to be initiated would be drawn from several neighbouring bands. Combined, they would gather in groups of 10 to 15 boys.
- The tshoma owners who are sponsors to the boys must put the boys through hardships, but their attitude is not harsh. It is not their purpose to drive the boys to their limits, to cause them pain or frighten them badly. The attitude we found among the men we talked to was one of consideration and protection.

- The tshoma rite is said to have secret aspects that must not be spoken of with the uninitiated. Whatever aspects they chose not to talk about remained their secret.
- The tshoma owners then take charge. Each boy has a sponsor. We were told that the sponsor is usually the boy's father but could be another male relative. Occasionally a man may sponsor more than one boy. The boys must give their sponsors deference and complete, unquestioning obedience.
- The *Tshxai !Go* dance is in every way the most important part of the tshoma rite. Every night the men dance the whole night through. Furthermore, it is at the dance, insofar as we know, that the boys receive the tshoma *n|om* from their sponsors and become owners of the Tshoma song.
- By far the most frequently performed rites and informal ritual practices are directed toward survival, specifically towards protection of health and protection from starvation, followed by rites for success in the hunt. It is not so much the fear of death that inspires many San survival rites as an ardent clinging to life.
- I wish that we knew more about the teachings that tshoma owners impart to their charges. I would imagine that the boys, particularly the older ones, would already know much of what their sponsors would be talking about in their teaching. However, hearing the social rules and hunting wisdom expounded in the charged atmosphere of Tshoma, they would probably listen as never before.

Another very important aspect of trying to understand this painting comes from the lines falling from the noses of the San figures (Fig. 4). The current shamanistic interpretation of these lines is that they are illustrations of nasal blood, which leads researchers to believe that they depict transformed shamans, whether living or dead (Lewis-Williams 2019). To support my alternative view I have drawn on the ethnographic accounts of Keeney (2015), who states:

'A *n|om-kxao* who is bent over stomping, what the Bushmen sometimes identify as dancing with the ancestors, has a belly pump in motion that brings forth strenuous breathing and guttural sounds. In this situation the *n|om-kxao* sometimes snorts as he makes loud rhythmic sounds. This intense action, involving heavy breathing through the nose, can bring on a nosebleed.

I would like to suggest that these falling lines are not a nasal nosebleed but rather the San artist's rendition of breathing, and that the lines are, in fact, air (Fig. 4). The San word *kxae !xoa* means the soul (the living self with its memories) and the words *n|huin n'ang* means breathing (bringing back) the soul (Keeney 2015). The falling lines connect to the horizontal lines joining the feet of the San provide a plausible

interpretation that all 23 figures in the painting are connected to the same lifeforce, namely air, which comes through breathing in and out. I believe that the figures scattered on the ground have been intentionally drawn this way by the artist to illustrate them as being unconscious but still breathing (Fig. 5.) I propose that the lines of air are the same lines of *n|om* that the San regard as 'the vibrant life force that animates all living beings and comes directly from God' (Keeney 2015).

In my view, the standing men on the left are waiting to enter the important next stage of an initiation ceremony. The fallen men on the right are in an altered state of consciousness (Figs 4 and 5) while transcending from boys to men, which the San describe as dying and being reborn again. The two men standing among the fallen figures are the mentors, or owners of the Tshoma *n|om*, who are managing the ritual activities. I would argue that the two eland torsos are symbols for male hunting, meat and sexuality in general. The faded grey figures are arguably San ancestors who are witnessing the initiation ceremony. I would also argue that the elephanthropes carrying water are a symbol for hunters carrying, storing and sharing water as part of their overall hunting strategy.

To suggest that all 23 figures in the painting are San shamans who are simultaneously in a state of trance and are possibly walking, dancing or lying in their own blood would seem to be an unreasonable proposition.

The origin of the current Shamanistic theory in South African rock art occurred when, according to Lewis-Williams, he was writing his PhD thesis in 1977: 'My view changed when I came to seek images to illustrate my chapters on San Girls initiation, boy's first-kill rites and marriage. I could find no persuasive examples of paintings that could be clearly related to these three rites of passage. In stark contrast, when I sought illustrations for my chapters on "The medicine man and the eland" and "The rain and the eland", the chapters that deal with aspects of San shamanism, there were more paintings than I could possibly include.'

The Cederberg paintings appear to be different to the Drakensberg paintings in this regard. In the past 12 years we have identified four male and three female initiation painting sites in the Cederberg associated with paintings of elephants or elephanthropes. Lewis-Williams does not refer to the all-important male initiation ceremony called tshoma (Marshall 1999), which is quite different to the boys' first-kill ceremony called *n!amma ko !kha* by the Kung, the meaning of which is to be cut with meat.

The importance of the tshoma ceremony has been confirmed by Alan Barnard (1992) and it would seem reasonable to assume that one could find a good number of paintings of this ceremony in San rock



Fig. 5: San men shown in an altered state of consciousness (Bieseke 1978)

art. According to Barnard, 'While the !Xo (Bushmen) medicine dance is important it is not particularly distinctive. In contrast, the male initiation dance and associated ceremonies are more distinctly !Xo. They are perhaps the most elaborate rituals recorded among Khoisan peoples.'

Barnard says in addition: 'Men hunted during the day and late at night, but meat was forbidden to the initiates. An elder would instruct the boys in mythology, magic, marital etiquette and the danger associated with menstrual blood. The ceremony also involved tattooing and teaching hunting skills. The initiation dance itself, known as tshoma has a unique music and dance steps.'

Conclusion - San sharing and survival

There appear to be three layers of information in the painting arrangements at the site discussed, namely the San behavioural level, the elephantrope behavioural layer and the elephantrope mythological layer. I have tried to identify possible fundamental San concepts linking these three layers in an attempt to understand the original intent of the San artist. My objective has been to answer the question: Why would the San have painted these two, apparently distinctly different, arrangements adjacent to one another?

In my opinion the elephantrope behaviour in the painting directs the narrative toward the concept of *survival*, specifically toward the social behaviour of sharing a scarce natural resource, water, and the San practice of creating water caches as part of their successful hunting strategies (Fig. 6). In my opinion, the San behaviour in the painting directs the narrative toward the tshoma owners teaching initiates about these survival aspects as part their new responsibilities on becoming men. The positive survival outcome of adhering to good social behaviour and hunting wisdom is symbolised in the painting's arrangement by the two eland torsos connected to the San figures by thin red lines. The negative life-threatening consequence of *not adhering* to good social behaviour and hunting wisdom is *death*.-

My conclusions therefore is that the elephantrope and San tshoma ceremony paintings at this remarkable site are conceptually linked and have been painted by the San artist with the specific purpose of storing, transferring and perpetuating the San's knowledge of survival as a means to *clinging to life* (Fig. 6). The function of the elephant-headed people in San mythology and the elephantropes in San painting in general are considered to be moral in intent and concern themselves with how the San people should act.

I have drawn on the following comments by Petersen (1999) to support this conclusion: 'The great myths and religious stories of the past, particularly those derived from an earlier, oral tradition, were moral in their intent rather than descriptive. Thus, they did not concern themselves with what the world was, but with how a human being should act.'

Acknowledgements

I would sincerely like to thank the owners of the property on which these images are found for their commitment to the protection of these unique San paintings and for sharing their photographs and knowledge of the paintings with us.



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Fig.6: The San sharing water with family members and their fellow hunters.

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ARCHAEOLOGY IN BRIEF

Scotland's largest find of prehistoric pottery

Remains of more than 200 prehistoric eating bowls and cooking vessels were found about near Edinburgh. The collection spans more than 2 000 years, with the oldest piece dating to around 4000 BC. The fragments reveal their owners' diets may have included yoghurt, butter, cheese, roasted hazelnuts and toasted barley. More than 2 000 sherds of pottery were found in rubbish pits. According to Julie Franklin of Headland Archaeology this is the biggest collection of its kind to be found in Scotland. Most of the finds were Middle Neolithic 'Impressed Ware' dating from around 3300 BC to 3000 BC. The report says the discovery 'demonstrates once more that Scotland's early farmers were dairy farmers'. Although Neolithic people of the area were likely to be lactose intolerant, they would have been able to digest yoghurt, butter and cheese.

The Scotsman, 12/09/2018

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**, a scientific publication of current research in southern Africa – twice a year
- ☐ **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

Subscription rates for 2019 are as follows: South Africa: Ordinary – R320; Joint/Family – R340; Junior members – R220. Africa ordinary – R380; Overseas ordinary – R645. Institutions: Local and African – R645; Overseas – R1 315.

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