THE DIGGING STICK

Volume 39, No. 1 ISSN 1013-7521 April 2022

A LION'S LIFE: TRACKING THE BIOGRAPHY OF AN ARCHAEOLOGICAL ARTEFACT

Justine Wintjes

In this article, Justine Wintjes tells how she tracked down something of the life story of a painting originally made in a rock shelter in the uKhahlamba-Drakensberg mountains. Her article is a condensed but illustrated version of a chapter that she wrote for a book titled* Archives of Times Past: conversations about South Africa's deep history, *edited by Cynthia Kros, John Wright, Mbongiseni Buthelezi and Helen Ludlow. 2022. Johannesburg: Wits University Press.*

Fig. 1: Object no. RP-2005-039 at the Rock Art Research Institute

A rock lies on a shelf in a small storeroom at the Rock Art Research Institute (RARI) at Wits University in Johannesburg (Fig. 1). On one side of the rock is a painted image of an adult lion, his mane heavy across his shoulders. His tail curves upwards in excitement as he crouches, preparing to charge his prey. Of the context in which he was painted we know nothing, for the rock has been cut out from its original place in a sandstone outcrop. The lion is left isolated, his compressed energy forever unreleased.

The front feet of the lion are incomplete, and there are remnants of paint elsewhere on the rock. He clearly

Dr Wintjes is a curator in the Human Sciences Department at the KwaZulu-Natal Museum in Pietermaritzburg, and a research associate of the Wits Institute for Social and Economic Research and of the Wits School of Arts. jwintjes@nmsa.org.za.

*Available from ArchFox Books (fox@boers.org.za) and the Origins Bookshop at Wits University.

OTHER FEATURES IN THIS ISSUE

Fig. 2: View towards uMhwabane shelter. Jeff Guy in foreground crossing the uBusingatha river

once formed part of a larger composition. He is finely painted in two shades of red and brushstrokes are visible across the lion's mane. Who was the artist? Was the image created from life or is the lion an imaginary one? Where exactly did the block of stone come from? How did it end up in Johannesburg?

uMhwabane rock shelter

West of Bergville in KwaZulu-Natal is a river known today as uBusingatha. At the bottom of the river valley lies a village called eBusingatha and at the edge of this village is a sandstone cave that archaeologists know as eBusingatha. Valley residents refer to it as uMhwabane rock shelter (Figs 2 and 3).

The shelter is located on one of many rocky outcrops in this landscape that together house an astonishing number of colourful rock paintings. These images are difficult to date but scientific studies suggest that painting is an artistic practice that began in the uKhahlamba-Drakensberg mountains at least 3 000 years ago and continued into the early 20th century. The communities the artists belonged to were ancestors of people who today variously call themselves San or Bushmen or abaThwa.

uMhwabane shelter attracted outside visitors because of its beautiful 'Bushman paintings', as English-speaking settlers and tourists called them. The shelter was located at the bottom of the valley near the main road to a hotel, so it was relatively easy to get to. Among the early researchers in the area was a group of women artists who belonged to an expedition directed by the German anthropologist Leo Frobenius. They visited the site, which they called Cinyati, in 1929 ('Cinyati' is a misspelling of 'Cingati', which is a word derived by Europeans from 'eBusingatha').

The site also featured in the visit of the British royal family to South Africa in 1947 (Hollmann and Msimanga 2008). Clarence Van Riet Lowe, director of the Archaeological Survey in Johannesburg, identified the shelter as a possible site for the royals to see during their tour. But he also reported that many of the paintings had been damaged and even deliberately vandalised. He felt that the surviving paintings were in danger and obtained a permit to remove them. A team of stone masons carved up most of the painted surfaces into large chunks of rock. These heavy objects were put on display at the hotel in the nearby Natal National Park, where presumably the royal family saw them.

In the early 1960s the rocks were transferred to the Natal Museum (now the KwaZulu-Natal Museum) in Pietermaritzburg, where they form part of the rock art archive in the Human Sciences Department. Back at uMhwabane shelter, the remaining rock paintings faded and crumbled further.

A giant puzzle

In April 2008 I visited the eBusingatha area for the first time. I was then employed by the African Conservation Trust (ACT) on a project funded by the National Lottery Distribution Trust Fund. The project's objective was to record rock art sites in the uKhahlamba-Drakensberg World Heritage Site in digital format. For many years, rock art researchers have been documenting the paintings throughout the mountains but in the early 2000s digital recording was just beginning. My focus area included the AmaZizi Traditional Authority Area near Royal Natal National Park (as it is now called).

I visited many sites in the eBusingatha area but was particularly attracted to uMhwabane shelter, even in its ruined state. The removal of most of the painted surfaces had left behind an intriguing pile of jagged rocks. In the late 1990s, parts of the roof of the shelter had collapsed and the place had changed so much that it was difficult to imagine what it had previously looked like. It was a giant puzzle. As part of my research for a PhD degree at Wits I explored how to recreate it digitally.

I knew that members of the Frobenius expedition had

Fig. 3: Looking out from uMhwabane shelter towards uBusingatha village and the high uKhahlamba-Drakensberg escarpment beyond

Fig. 4: Catalogue no. 657, described as 'Löwe mit vier Elenantilopen' (lion with four eland) by Maria Weyersberg of the Frobenius expedition (© Frobenius-Institut)

made hand-painted copies of several of the paintings at the shelter in 1929. They had been published in 1931 in Frobenius's book *Madsimu Dsangara: Südafrikanische Felsbilderchronik* (Madsimu Dsangara: chronicle of South African rock art). The book's main title refers to the Shona term *madzimu dzangara*, which, as archaeologist Edward Matenga explained to me, refers to playful but dangerous incarnations of ancestral spirits. The book contains many vivid colour copies of rock art and other pictures. I decided to make a visit to the Frobenius Institute in Frankfurt, Germany, to find out if there were any further records of the research done at eBusingatha.

Behold! A faint image of a lion-like creature

At the Institute, I was delighted to come across a bundle of documents on uMhwabane shelter (Wintjes 2013). It included hand-painted copies of the paintings that I had not seen before. Then, as I dug further into the collection with Richard Kuba, the senior researcher responsible for the Institute's pictorial collection, I made a discovery that I still remember with excitement. It was a set of detailed photographs of the rock shelter showing what it had looked like before the removals. I hoped that these photographs could help me figure out where the panels of paintings had been located and what they had looked like before being broken up. I also hoped to find the answer to a particular question that had preoccupied me.

One of the copies made in 1929 by Maria Weyersberg, a member of the Frobenius expedition, depicts three eland and a cow facing a lion (Fig. 4). I knew that this scene had been matched by Val Ward to paintings on one of the pieces of rock in the care of the Natal Museum. But she had been unable to find the painting of the lion. She felt that it might have been a product of the copyist's imagination. I wondered if this painting had ever existed. And if so, could it still be found? At that stage only small print versions of the photographs, which had been scanned in low-resolution format, were available for viewing at the Frobenius Institute. I asked about the original glass-plate negatives. The in-house photographer, Peter Steigerwald, was able to locate the negatives but needed to subject them to a special process of cleaning and preservation before digital scanning could take place. It was worth the wait, for the final digital files were spectacular. There were details in these photographs that no one had seen since the originals were archived.

Among the images I found the panel that included the three eland and a cow. It had been captured from a distance, at a sharp angle, and of course only in black and white (Fig. 5). To the naked eye, no lion was immediately visible. On my computer, I zoomed into this photograph. I digitally cut the panel out of the photograph and stretched it. And behold! A faint image of a lion-like creature started to emerge towards the left-hand end (Fig. 6). My search had been successful. The painting of the lion had indeed existed.

Another clue

But where was the original painting? Did it survive the removals? Could it still be found? Back in Johannesburg I searched through the records of the Archaeological Survey, some of which are now held at RARI. I came across a note written in 1951 that gave me a clue to follow up. A mine superintendent called Kupferburger had sent an old, slightly out-of-focus photograph of the lion painting to Clarence van Riet Lowe. Kupferburger described it as a 'rock engraving' in a 'cave somewhere in the north-eastern Transvaal beyond Louis Trichardt'. In the margins of this correspondence Van Riet Lowe had written: 'The original of the photograph is in our museum. It is a painting NOT an engraving. I removed it myself from the Ebusingata Cave near the Royal Natal National Park some years ago.'

This discovery led me to think that the painting of the lion might be in the collection of rock art specimens from the Archaeological Survey that had ended up at RARI. I searched for it and - behold again! – I was successful. I went on to find two other painted stones from uMhwabane shelter in the collection. So not all of the rock paintings removed from the shelter had ended up at the Natal Museum in Pietermaritzburg. From documents in the main Archaeological Survey archive stored at the National Archives in Pretoria, I learnt that at the time of the removals, Van Riet Lowe had selected these three pieces and had them

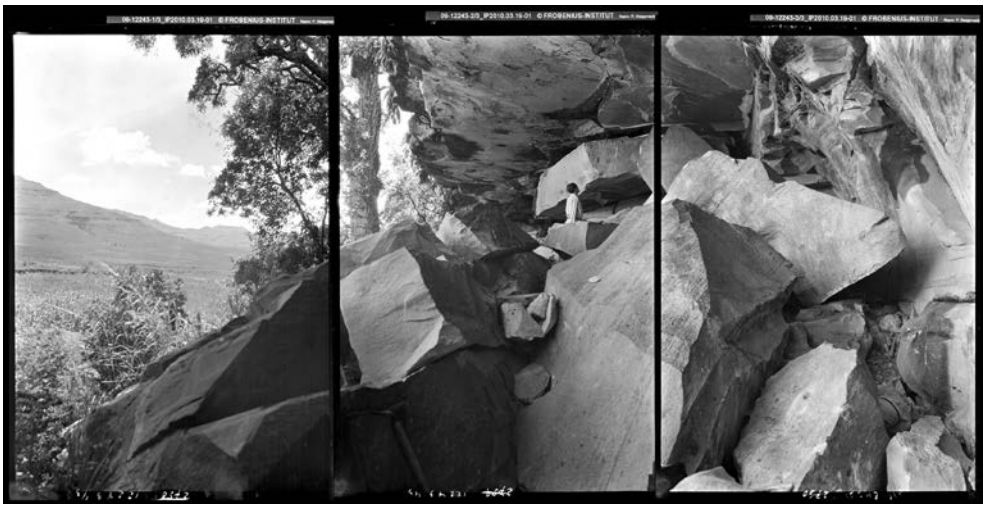


Fig. 5: View into uMhwabane (Cinyati) shelter with Maria Weyersberg. (Frobenius expedition, Agnes Schulz or Elisabeth Mannsfeld (© Frobenius-Institut)

sent separately by train to Johannesburg. Over time, records of where they came from had been lost.

From these sources, I was able to begin to reimagine the lion panel as it was before the removals. The rock surrounding the panel is now obliterated and I do not know exactly what it used to look like. So, in the digital restoration that I made, the panel floats against a backdrop created from my own photographs (Fig. 7). Nevertheless, the digital version of the panel is, I think, very similar to what the original in the cave looked like.

At one end of the panel is the lion, crouching, and at the other end is the eland-and-cow cluster. One of the eland is lowering its head, pointing its horns forward in a defensive stance. The distance between the lion and the eland group is much greater than in Weyersberg's copy – she rearranged them into a closer, more direct encounter – but it is not hard to imagine a relationship between them. The scene suggests that a dramatic event is about to occur.

Sharing the landscape with lions

But what did the painting of the lion mean to the artist and the people in their community? We should be careful about thinking that the artist simply wanted to paint a natural-looking picture of a lion that they had seen on the hunt. Over the last half-century, researchers have learned that the art of painting in hunter-gatherer communities formed part of a wider spiritual practice. Making paintings was very important in communicating with the world of the spirits. Shamans, or medicine men and women, would often speak about how, during visits to the world of the spirits, they had transformed into animals of various kinds. These included lions, which appear to have been particularly important to shamans because of their special ability to turn into different beings.

Anthropologist Olga Rakitianskaia (2019) has recently studied ideas about the place held by lions in societies of historically known San hunter-gatherers. She argues that lions were seen as much more than beasts of prey. They shared the landscape with humans and hunted the same animals. They had a place in human society because their kills formed an important source of meat for people. People understood the taking of meat from lion kills as a kind of sharing with the lions, rather than theft. Meat was a precious social resource and sharing was important for holding communities together. But lions could also retaliate and even take human life.

We can imagine that the lion at uMhwabane shelter was painted as an actual lion, hunting eland to provide people with meat. At the same time, it was probably more than simply a powerful predator. He may have been painted as an individual, a person, possibly a shaman in a lion's body, watching and keeping watch over people. He was dangerous but he was also a provider of sustenance in an organic, social and spiritual sense. The painting of the lion at

Fig. 6: A stretched portion of Fig. 5 showing the faint image of the lion towards the left end of the panel

Fig. 7: A digital restoration of the lion pane

uMhwabane shelter possibly represented a complex creature of this kind.

Today lions have come to represent a kind of ancestral time. It is easy to forget that the painting from uMhwabane shelter was an expression of a real relationship that people had with lions when there were no fences on the land. It captures the beauty, ferocity, presence and power of lions, both physical and metaphoric. It signals radically different ways of being in the world, and radically different relationships between animals and people. Locked out of sight in a storeroom, the lion can be made to live again to tell something of its story.

References

Hollmann, J, & Msimanga, L. 2008. 'An extreme case': the removal of rock art from uMhwabane (eBusingatha) rock art shelter, Bergville, KwaZulu-Natal. *Southern African Humanities* 20: 285–315. https://sahumanities.org/index.php/sah/article/view/372

Rakitianskaia, O. 2019. Lions in the night: the dual unity of pantherine symbolism in San beliefs and its possible origins'. *Southern African Humanities* 32: 193–216. https://sahumanities.org/index.php/sah/article/view/448

Wintjes, J. 2012. Archaeology and visuality, imaging as recording: a pictorial genealogy of rock painting research in the Maloti-Drakensberg through two case studies. PhD thesis, University of the Witwatersrand.

Wintjes, J. 2013. The Frobenius expedition to Natal and the Cinyati archive. *Southern African Humanities* 25: 167–205. https://sahumanities.org/index.php/sah/article/view/376

Wright, J, & Mazel, A. 2007. *Tracks in a mountain range: exploring the history of the uKhahlamba-Drakensberg.* Johannesburg: Wits University Press.

Wright, J, & Mazel, A. 2012. *uKhahlamba: umlando wezintaba zokhahlamba; exploring the history of the uKhahlamba mountains.* Johannesburg: Wits University Press.

MORE ON BIFACIAL, TANGED AND BARBED ARROWHEADS

AJB Humphreys

Some five decades ago I published an article describing bifacial, tanged and barbed arrowheads from Vosburg (Humphreys 1969). After all these years I have found another bifacial, tanged and barbed arrowhead from the other side of the world. In 2016 my elder daughter, Mary, as head of the Raphael Centre in Grahamstown, was invited to attend a course in Nova Scotia, Canada. While there, she found a bifacial, tanged and barbed arrowhead and, knowing of my interest, brought it back to me in Cape Town. The diagram shows this arrowhead from Nova Scotia.

An important point to note is the very delicate working on the arrowhead, as it was on the arrowheads I described in 1969. Although they are only a matter of 2 mm or 3 mm thick, the fine working is indicative of a very refined skill on the part of the makers. It is a skill that was thought only to have emerged more recently. Reference to Humphreys (1969) will give an indication of just how refined the working on these arrowheads can be. They are quite remarkable pieces of work.

Bifacial, tanged and barbed arrowhead from Nova Scotia (image produced by Katherine Farrell)

Professor AJB Humphreys was with the Department of Anthropology and Sociology at the University of the Western Cape from 1979 to 2009. ajbhumphreys@telkomsa.net.

Reference

Humphreys, AJB. 1969. Four bifacial tanged and barbed arrowheads from Vosberg. *South African Archaeological Bulletin* 24(94): 72–74.

A ROCK PAINTING IN THE ATTAQUA MOUNTAINS
Prehistory – or mystery?

Hugo Leggatt

In the Attaqua mountains, about 30 km from the coast at Mossel Bay, a sandstone outcrop shelters a rock painting site that reveals unexpected surprises. At first sight this appears very likely to be a painting of a healing dance, with the figure at the far left being a shaman casting evil influences into the darkness (Fig. 1). As often happens when photographing rock paintings, it is difficult to get a good combination of position and lighting in the field. Once at the computer, it was easier to see that the smaller slab below the crack had also been home to paintings.

Fig.1: Attaqua rock painting

Fig. 2: Enhancement of the San rock painting by Kevin Crause showing the 'Greek' head in natural light at the top right, under enhanced colour at the bottom left and with detail in grayscale at the bottom right

So back again, this time with photographer friend, Kevin Crause. Kevin's professional work (Fig.2) shows the slab under natural light at top right, under enhanced colour at bottom left and with detail in grayscale at bottom right.

There were surprises here. For me, the biggest was the appearance of the two faces, as if peering over the crack – and not remotely akin to traditional San depictions of human heads. I wondered about this. And there the matter rested.

A Grecian temple frieze

One evening, watching a BBC TV programme on Classical Greece, I was rivetted by the face in

the centre of the picture reproduced as Fig. 3. Surely that was as close as anything in appearance I had seen tothe face on the rock in the Attaquas?

So, what is the story of the Greek frieze? The frieze is sculpted in marble on a temple at Delphi. It depicts a sequence of the 'Battle between the giants and the gods'. A helmeted giant is being attacked by a lion, presumably on the instruction of a god. The work is said to date to more than 500 years BC.

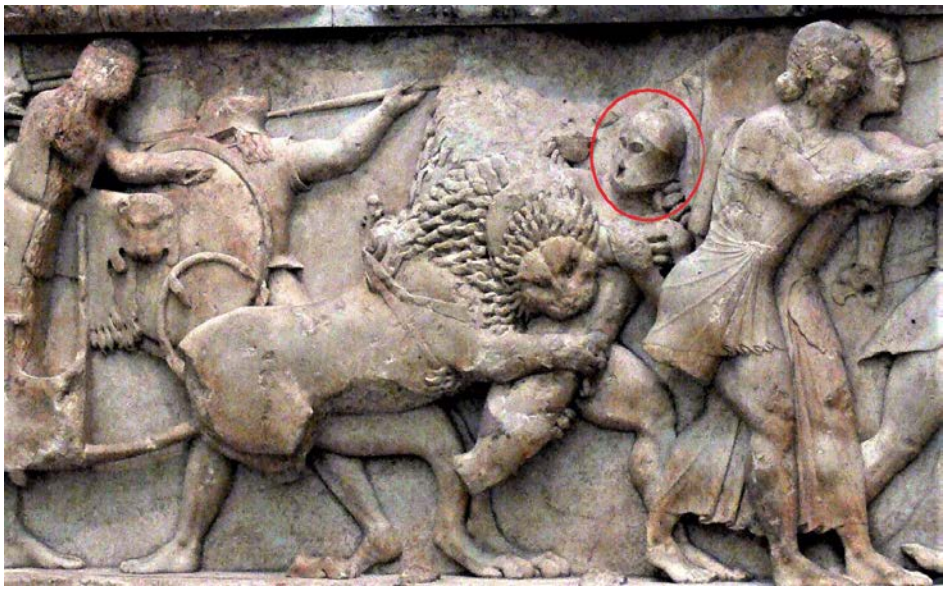


Fig. 3: Marble frieze depicting the 'Battle between the giants and the gods' at Delphi in Greece with the giant's head outlined (open source)

Back then to the two faces: the Attaquas face in Fig. 4, the Delphi face in Fig. 3. Exact copies? No, certainly not. The local depiction is a painting on sandstone; the Greek image is sculpted in marble. Apart from that, time has also impacted differently on the two. But similar in design? Yes, in general shape and the pronounced eyes and nose slit. The Corinthian bronze helmet worn by the giant at Delphi (Fig. 5) was developed about 700 BC and remained in use until Roman times. It does not appear to have been specifically connected to the city of Corinth.

The connection, if any

Herodotus, the 'Father of History', is thought to have visited Egypt in the middle of the 5th century BC. Writing of the history of Egypt, he records that around 600 BC the Pharoah Necho (or Necos) despatched a Phoenician crew via the Red Sea with orders to make for the Pillars of Hercules (the Straits of Gibraltar). 'Libya [modern Africa] furnishes proofs about itself that it is surrounded by sea, except so much of it as borders upon Asia; and this fact was shown by Necos king of the Egyptians.'

The sailors travelled down the Red Sea and into the Indian Ocean until autumn arrived. Then they went ashore 'wherever they might be, and having sown a tract of land with corn, waited until the grain was fit to cut. Having reaped it, they again set sail …'. It was in their third year that they reached the Pillars of Hercules and then made for home. Herodotus reported that, when sailing west, they had the sun on their right. This he did not believe but, of course, nowadays this remark is regarded as evidence for the truth of the story.

Is it reasonably possible that these sailors made one of their stops on the Mossel Bay coast? With its protected landing spot, its well-known source of water and suitable land for planting grain could fit the bill. If so, perhaps a faded painting in the mountains might depict the artist's interpretation of the first Corinthian helmet seen in those parts.

There may be some supporting evidence. In March 2021 the *Greek City Times* of Melbourne, Australia, quoting the Israeli Antiquities Authority, reported that a similar helmet, found in the harbour at Haifa, had been dated to the 6th century BC. In that period, this was part of the Phoenician homeland and it was from here that Necho was said to have hired his sailors.

References

Breasted, JH. 1921. *A History of Egypt.* London: Hodder & Stoughton. 585

Herodotus. *The Histories.* 2008. Project Gutenberg e-book. Vol. IV, para. 42.

Greek City Times, Melbourne, Australia. https://greekcitytimes.com/2021/03/03

Fig. 4: Head similar to the giant's head in Delphi peeking over a rock in the Attaqua mountains, Southern Cape

Fig. 5: A Corinthian helmet from the Bavarian State Collection (open source)

THE SOUTH AFRICAN ARCHAEOLOGICAL SOCIETY

Applications for Research Grants from the Kent and Ward Fund

The Kent and Ward Fund was established as a result of two generous bequests from long-term members of the South African Archaeological Society. The first, in 1992, was from the late Dr Leslie Kent, a geologist in Johannesburg, and the second, in 2019, was from the late Valerie O'Hagan Ward, who organised the Society's branch in Pietermaritzburg for many years. The Society has invested the income and the interest is distributed from time to time at the discretion of the Council for contributing towards -

- financing of field work;
- research projects;
- analysis of archaeological material; and
- publishing or supporting the publication of the results of research.

The Society invites applications each year for awards in all categories. Please follow the guidelines and instructions when completing the application form. The maximum amount available from the fund per year is R20 000.

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, archival or bibliographic work.
- Proposals may also include publication of the results of research that popularise archaeology for public education and community awareness.
- The fund is not intended for and will not support per diem payments to the applicant, nor to living expenses during the writing of reports or publications.
- The fund will not support fieldwork costs involved in preparing archaeological or other heritage impact assessments.
- The fund will not contribute to the purchase of expensive equipment such as cameras, microscopes or laptops for the analysis of results.
- Successful applicants will be required to provide a digital copy of a 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 our website, https://www.archaeology.org.za/grants_and_awards/kent_ward_bequest, or via email requests to secretary@archaeology.org.za. Completed applications must be submitted **before 31 July of each year.** All applications will be refereed by specialists. The successful applicant/s will be notified by 15 September of each year.

WORLD ARCHAEOLOGY

Earliest cancer case from Bronze Age China

An examination of the skeletal remains of a man from Bronze Age China has produced some astonishing results. Work conducted by an international research team resulted in experts finding one of the earliest examples of cancer in East Asia. The remains that were examined in the study came from a man who belonged to the Qijia material culture that dates from about 1750 to 1450 BC. It is believed to have been a sedentary culture in which agriculture and animal husbandry was practiced. The dead man had been interred in a tomb with six other people in Gansu Province, in the northwest of China. The skeleton was 60 per cent complete and death occurred between the ages of 34 and 44. An international research team reported the find in the International Journal of Paleopathology.

The experts found multiple small circular lesions on the bones. These could not be explained by tuberculosis, a fungal infection, or any rare bone condition. Eventually, they concluded that it was a type of cancer. Possible causes of leukemia or metastatic carcinoma were ruled out. The team stated that 'based on the nature, distribution and radiographic appearance of the lesions, the most likely diagnosis is multiple myeloma', a malignant cancerous tumour focused on the bone marrow. Incidences of this rare cancer have been found from the Stone Age to modern times. It is mostly found in rich countries and is associated with unhealthy lifestyles. In general, finding evidence of cancer in ancient people is very rare, with less than 300 cases having been identified in the archaeological record. The only other possible case of this disease in China was found in a male who died 6 000 years ago during the Neolithic period.

Ed Whelan, Science Direct, 31/10/2020

CHANGING PERSPECTIVES ON THE LINK BETWEEN SAN FOLKTALES AND ROCK ART

JM Dederen and J Mokakabye

For more than a century now, researchers worldwide have debated whether and how folklore or mythology could be helpful for the analysis of prehistoric rock art. In South Africa, early writers freely and, at times imprudently, useds folktales to interpret the paintings and engravings of prehistoric hunter-gatherers. However, during the 1960s, when archaeology was being transformed into a more rigid, scientific discipline, local scholars became more cautious. Excellent published collections of folktales were available but many contemporary archaeologists reasoned that the tales and the paintings had been produced in two different eras of San cultural history. More specifically, the tales were recorded at a time when hunting-gathering as a mode of subsistence had virtually ceased to exist and, more significantly, long after the tradition of painting had become extinct.

It was further noted by these researchers that the narrative art of the San was set in a separate universe and seemed almost unrelated to their other cultural creations. For one, the animal types that featured in the folktales were very different from those portrayed in the rock art. Moreover, it was noted that unlike the visual art, which thrived on religious symbolism, the realm of storytelling largely appeared to be devoid of a deeper, spiritual significance. Neither did it support San social or political institutions. On the contrary, most of the tales were found to depict an asocial, surreal kind of world in which the main protagonists often acted in crazy ways, undermining rather than promoting cultural practices (Deacon 1994; Guenther 1994; see also Gottlieb 1989).

More recently opinions have changed. It is now widely held that the narratives of the San are very similar in nature to their painted art. To be more precise, both are declared to be artful evocations of San ritual life, more particularly of the healing ritual known as the trance dance (Guenther 1999, 2020; Bennun 2004; Lewis-Williams 2015). In the first part of this article we will illustrate the new perspective by way of a small sample of folktales and paintings. In the second half we will revisit the same material and attempt an alternative, more indigenous understanding.

Jean-Marie Dederen is a senior lecturer in the department of African Studies, University of Venda. Godfrey.dederen@univen.ac.za

Jenifer Mokakabye has completed the MA archaeology programme at the University of Venda and is curator in the Benoni Museum.

Narrative and visual art as ritual

The new perspective maintains that the creations of both storytellers and painters in essence portrayed the rituals of the San, be it in narrative or visual form. Of all the ritual activities among these hunter-gatherers, the trance or curing dance is considered to be the most elaborate and prominent. The ritual dance allowed the soul of a healer to leave his body and transform into an antelope, often an eland, in order to enter the realm of the spirit world and replenish his healing powers.

Trance healing, we are told, permeated all aspects of San life, including folklore and rock art. It constituted the core of San existence. It has further been suggested that rituals associated with other cultural domains, like initiation or marriage, were in all probability modelled on the beliefs and practices of healing. As such, they were only of secondary importance and remained in the background, overshadowed by the primary ritual, the trance dance.

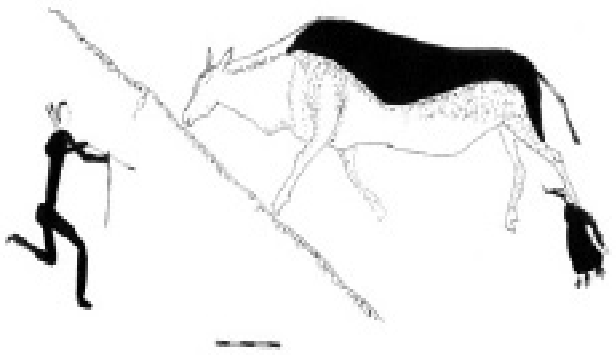


Fig. 1: Panel from Tsoelike River George, Maloti-Drakensberg (redrawn from Vinnicombe 1976: 171)

Tale One: *A visit to the lion's house* (abridged, from Bleek 1924:15-8)

!Kaggen, the little trickster Mantis, accompanies two of his in-laws to visit their relatives, the lions. The lions have hunted quagga and the visiting party is going to collect a share of the meat. !Kaggen hides under a kaross inside the bag which is carried by the younger in-law. He first teases and later frightens a lion cub by peeping out of the bag, by whispering threats, by changing into a hare and by winking at him. His mother, the lioness, tries to stamp on the bag and crush !Kaggen. He escapes by growing wings. He flies up in the sky, instructing his cap, kaross, shoes,

bag and quiver to follow him. He then dives into the waterhole. He returns to the camp and announces that his companions have been killed by the lions. When they arrive with the meat later on in the day !Kaggen is scolded for his bad behaviour.

Inspired by structuralist theory and semiotics, it has been proposed that the true meaning of San folklore is to be found in its symbolism. In this instance, the disappearance of the little trickster under a cloak inside a bag metaphorically portrayed the transformation of a healer into an antelope (both the cloak and bag were made of antelope skin). The flight of the trickster described his hallucinatory trip into the other world of spirits, while the lions represented sorcerers who caused illness in the camp. Lastly, it has been argued that the teasing of the same predators by !Kaggen, symbolically expressed the healing ritual, ie the battle between a healer and the supernatural forces of evil (Lewis-Williams 2015).

Fig. 2: Panel from Qacha's Neck, Maloti-Drakensberg (redrawn from Vinnicombe 1976:175)

Tale Two: *The girl and the frogs* (abridged, from Bennun 2004: 210-3).

A girl had been secluded during her initiation rites. Every day she refused to eat the food cooked by her guardian. She waited for others to leave and secretly walked to the pool where she caught one of the children-of-the-water. She killed it, cooked and ate it. A cold whirlwind lifted the girl up in the sky. Together with her people she was thrown into the pool and became a frog. Their aprons, mats, blankets and quivers changed into springbok. Their sticks and arrows transformed into bushes and branches.

A girl who has transgressed several taboos is transformed together with her relatives. In addition, their possessions have returned to their original, natural forms. This shape-shifting of one state of being into another has been identified as the main symbolic issue in the tale. It has been compared to the central ritual of girls' initiation, the Great Eland Dance, during which the participants were believed to have changed into 'antelope women'. The significance and spiritual meaning of the Great Eland Dance, it is contended, derived from the ritual performance of the trance dance, on which it was modelled (Guenther 1999; Keeney and Keeney 2013).

Panel One: Tsoelike River George, Maloti-Drakensberg (Fig. 1)

According to the contemporary reading of San rock art symbolism, the mysterious winged creature next to the eland represents a healer engaged in a visionary experience, most probably a dream. His wings and tail metaphorically convey the sensation of flight, which he experiences on his out-of-body journey. Dreams and trance constitute very similar hallucinatory experiences (Lewis-Williams 2015). The image of an eland conventionally portrays the main source of a healer's healing power. The third figure on the left appears to be hunting, but he is not. The hunting equipment is symbolic of the healer's spiritual quest for potency.

Panel Two: Qacha's Neck (Fig. 2)

This type of humanlike figure has been interpreted as a metaphorical representation of healers in trance. The animal heads, antelope hooves, awkward body postures and elongated bodies visually express the process of shape-shifting during a trance dance. The presence nearby of a dead eland has been explained with reference to the fact that among the Kalahari San, healers occasionally danced near a dying eland to capture its potency (Lewis-Williams 2002; see also Dederen and Mokakabye 2019).

Panel Three: Makgabeng Plateau (Fig.3) and Panel four: Mapungubwe area (Fig. 4)

Rows or processions of female kudu and women, as well as images of female aprons are fairly common in the Limpopo Basin. Ed and Cathelijne Eastwood (2006) have interpreted them, quite perceptively, as symbolic of San female initiation, more specifically of its central ritual, the Kudu Dance. The dance performance (similar in function to the Great Eland Dance) was believed to facilitate and support the development of girls into women. The meaning of girls' initiation in general and of the Kudu Dance in particular, they concluded, is best appreciated in terms of the trance dance, as both forms of ritual engaged similar spiritual forces.

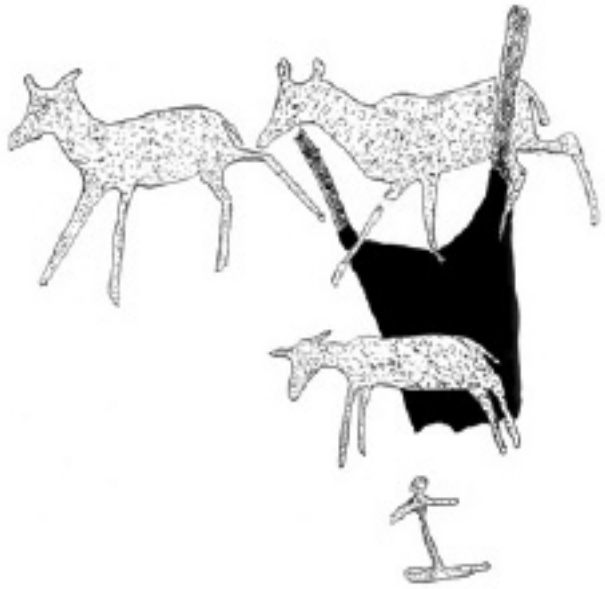


Fig. 3: Panel from Makgabeng Plateau (redrawn from Eastwood and Eastwood 2006: 161)

An indigenous perspective

We readily agree with the followers of the new perspective that San folklore and rock art constituted similar forms of expressive culture. However, we propose that their likeness was not brought about by both of them embodying healing rituals but rather because the tales and the paintings originated from a similar mindset. They primarily concerned the hunt, even after hunting had lost its economic importance. A more authentic understanding of the selected texts and images will be achieved when we, as outsiders, take cognisance of the world-view or cosmology of the hunter. Our extensive comparative literature review of hunter-gatherers worldwide (an ongoing project) has so far produced more than 20 features that typify such a world-view. We will mark the features that proved relevant for this discussion in italics.

The cosmology of traditional hunters was essentially animal-centred or *theriocentric* in nature. There was little in their daily life that was not shaped, influenced or inspired by their close association with nature in general and with animals in particular. In the mindset of the hunter different modes of being, types of beings and the realms they inhabited were interactive and mutually interdependent. The *human-animal affinity* that characterised traditional hunters and the *cosmic unity* it produced are two features which we, as outsiders, may find hard to grasp. Whereas we perceive humans and animals largely as separate and opposed categories, in hunter-gatherer communities animals were deemed to possess (*animal) personhood*, ie they co-existed with humans as conscious and intelligent members of a shared cosmos.

San folklore and rock art, in our opinion, clearly conveyed this common destiny of animals and humans, as well as the spiritual bond, the *human-animal afinity,* that united them. We found that numerous tales and paintings featured animals that behaved like humans whose actions were largely defined along the interface with their animal kin. What is more, powerful, mystical animals made up the main cast in the narratives of both creative realms. There was Eland (Figs 1 and 2) and Kudu (Figs 3 and 4), as well as !Kaggen, the little mantis (tale one) and !Khwa, the Rain Bull (tale two). Mantis dominated the male realm of the hunt and !Khwa was closely associated with the realm of women. The presence of the latter two 'animal gods' in tales and paintings was meant to remind listeners and viewers that collective survival depended largely on compliance with the laws that regulated and enforced the *cosmic unity* of humans and animals.

The *master of the animals* (or *game keeper*) and the *contract* between hunter and prey are two more features of the hunting cosmology that we have frequently encountered in the tales and paintings. Traditional hunters believed that animals were controlled by a great spiritual being, the *game keeper*, who would either release or withhold the animals. When an animal was killed, its soul informed the *master* about the ways it had been treated by the hunters. The communal hunt was regarded as a form of ordained killing, a sacred occupation governed by 'commandments' that were loosely framed in a time-honoured agreement or *contract.* Boys learned about the *contract* through storytelling and rites of passage. We assume that, in the case of the San at least, the painted images could have served a similar purpose.

Fig. 4: Panel from Mapungubwe area (redrawn from Eastwood and Eastwood 2006: 138)

Panels one and two seem perfectly suited for such a didactic purpose. We are of the same mind as Patricia Vinnicombe (1976), who suggested that the small mysterious creature in the first painting could very well have portrayed !Kaggen (the *game keeper* among the San) controlling a hunted animal. The eland was his most favourite creation. We add to her interpretation that the hunter has been consciously painted in a small recess of the rock face (see Fig.1) to communicate the fact that he was running past the eland. This visual arrangement of hunter and prey images was probably intended to indicate to the viewer that !Kaggen had decided to withhold the animal and mislead the hunter because of some or other transgression of a hunting-related rule or taboo.

The composition and details of the exquisite polychrome painting from Qacha's Neck (Fig. 2) illustrate the concept of the *contract* equally well. The eight thin men with elongated limbs probably depicted the ancestral hunters who had been sent to inspect the dead eland (Dederen and Mokakabye 2019). The severed eland head could be a reference to certain hunting rituals (Pager 1982) that traditionally needed to be performed after killing a prey animal. The two hunters on the right are not aware of the presence of the spiritual beings. Their curled-up body posture reiterates that of the tied-up eland. This resemblance between hunter and prey was most likely intended to illustrate the mystical rapport or *affinity* between humans and animals.

The girls who participated in rites of passage were also subjected to that particular range of taboos, the transgression of which was believed to influence the release of prey animals and the outcome of the hunt. The creator of Tale 2 cautioned young female listeners that the procreative powers of women were closely linked to the power of the Rain Animal, the same treacherous spiritual being that roamed the hunting grounds. Similarly, panels three and four could have been used to instruct female initiates that their misconduct endangered the hunters. This would apply especially to panel three, which has been painted next to a hunting scene. The same panels would also have been intended to honour and celebrate the animal beings that activated the life-giving force of future mothers.

The transformation of girls into 'antelope women' during the Kudu Dance (also depicted in panels three and four) can be explained with reference to the kudu's *animal power*, another universal feature of hunting cosmologies. The potency of animals derived from a greater *cosmic power* that was potentially helpful to humankind but could be destructive as well. This power was located in the blood, internal organs, skin and certain body parts, such as the head, horns, hoofs and tail. *animal power* was believed to facilitate the growth of sexuality in young men and women. It could also animate objects made of animal skin and even transform them into antelopes (as is the case in both tales). Members of a traditional San community would have associated images of kudu, eland and antelope aprons with real, powerful beings that mediated *cosmic power* and influenced human fertility, survival and the outcome of the hunt.

As far as Tale 1 is concerned, we would like to argue that this type of story was of an educational as well as entertaining nature. Like many similar ones, the tale describes one of the adventures of !Kaggen. It was created for the youngest male listeners in the audience. The trickster was their hero. However, !Kaggen possibly also embodied, in a playful way, the *prowess of the hunter*. His behaviour may seem for the most part simply mischievous to us, but from an insider's perspective the trickster displayed stealth, shrewdness and courage, personality features that were deemed necessary to become a successful hunter. Additionally, this particular tale emphasised the importance of another very critical, universal feature of hunting-gathering societies, namely the reciprocity or *sharing*.

References

Bennum, N. 2004. *The Broken String: The last words of an extinct people*. London: Viking Books.

Bleek, D. 1924. *The Mantis and his Friends*. Cape Town: Maskew Miller.

Dederen, JM & Mokakabye, J. 2019.The Rosetta Stone of rock art. *The Digging Stick 36(3).*

Deacon, J. 1994. Rock engravings and the folklore of Bleek and Lloyd's /Xam San informants. In Dowson, TA & Lewis-Williams, JD (eds) *Contested Images: Diversity in Southern African rock art research. Johannesburg:* Witwatersrand University Press: 237-56.

Eastwood, EB. 2006. Animals behaving like people: San rock paintings of kudu in the Central Limpopo Basin. *South African Archaeological Bulletin* 61: 26-39.

Guenther, M. 1994. The relationship of Bushman art to ritual and folklore. In Dowson, TA & Lewis-Williams, JD (eds) *Contested Images: Diversity in southern African rock art research*. Johannesburg: Witwatersrand University Press: 257-74.

Guenther, M. 1999. *Tricksters and Trancers: Bushman religion and society*. Bloomington: Indiana University Press.

Guenther, M. 2020. *Human-animal Relationships in San and Hunter-gatherer Cosmology*. Palgrave: Macmillan.

Eastwood, E & Eastwood, C. 2006. *Capturing the Spoor. An exploration of southern African rock art.* Cape Town: David Philip.

Keeney, B & Keeney, H. 2013. Re-entry into the first creation: a contextual frame for the Ju/'hoan Bushman performance of puberty rites, storytelling and healing dance*. Journal of Anthropological Research* 69: 65-86.

Lewis-Williams, JD. 2002. Three-dimensional puzzles: Southern African and Upper-Palaelithic art. *Ethnos* 66: 245-64.

Lewis-Williams, JD. 2015. *Myth and Meaning: San-Bushman folklore in global context*. Cape Town: UCT Press.

Pager, H. 1982. The ritual hunt: parallels between ethnological and archaeological data. *South African Archaeological Bulletin* 38: 80-87.

Vinnicombe, P. 1976. *People of the Eland. Rock paintings of the Drakensberg*. Pietermaritzburg: University of Natal Press.

PERSONALITIES, SQUABBLES AND THE DISCOVERY OF THE SALDANHA SKULL

Alan G Morris

This is an edited excerpt from *Bones and Bodies: How South African Scientists Studied Race*, by Alan G Morris. 2022. Johannesburg: Wits University Press. Available from Arch-Fox Books (fox@boers.org.za) and the Origins Bookshop, Wits University.

Donkey cart access to the Elandsfontein fossil site near Hopefield in the Saldanha Bay region of the Western Cape, circa 1952. There was no road access, even for four-wheel-drive vehicles, at this time. (Department of Human Biology, University of Cape Town)

Early in 1951, a fossil site on the farm Elandsfontein, near Hopefield, west of Saldanha Bay in the Western Cape, was brought to Prof. Matthew Drennan's attention at the University of Cape Town (UCT) Department of Anatomy. Access to the site was difficult because it comprised a series of wind exposures in a sand dune field, but in May 1951 Ronald Singer, a lecturer in Drennan's department, was able to get there by means of a donkey cart. What he brought back to the department was stunning.

The fossils from Elandsfontein were extinct forms of various mammals but there were also Early and Middle Stone Age tools that provided confirmation of a human presence in ancient times. John Goodwin, the UCT archaeologist at the time, subsequently visited the site and not only confirmed Singer's observations but also argued that the site was so valuable that there should be a formal archaeological investigation. At his instigation, the university principal created a multidisciplinary departmental committee consisting of anatomy, archaeology, geography, geology and zoology (Drennan 1953a).

Among its early tasks was to hire Keith Jolly as university field officer to co-ordinate excavation efforts at the site. Jolly, Drennan, Ted Keen (Anatomy) and Jack Mabbutt (Geography) were regular visitors to the site in 1951 and 1952 and Singer joined them in fieldwork on his return to South Africa.

In January 1953, Ted Keen drove Singer and Jolly up to the site and left them there to begin that year's fieldwork but could not stay himself. Almost immediately, Jolly discovered fragments of a hominin in the deflation exposure he was examining and shortly after Singer found more parts of the same skull nearby. This was the discovery of the famous Saldanha skull but it also marked the beginning of a series of personality clashes that would plague future research and publication.

Singer and Keen brought the skull back to Drennan and were already making plans for the first publication on the discovery. However, Drennan had other thoughts. In Ted Keen's words: 'We, Singer and I, decided we were going to study this skull but he [Drennan] then made it very clear that [this] was not on his programme and *he* [Keen's emphasis] was

Alan G Morris is Emeritus Professor in the Department of Human Biology, University of Cape Town. alan.morris@uct.ac.za.

Tea break during excavations at Elandsfontein in the early 1950s. Fltr: Keith Jolly (Archaeology), Ronald Singer (Anatomy) and Jack Mabbutt (Geography). (Department of Human Biology, University of Cape Town)

going to study the skull, not us. He made it absolutely specific.' Singer, in particular, was furious. Not only had Drennan sabotaged his attempt to work in experimental embryology but now he was preventing Singer from getting the glory from what was the fossil find of the decade in South Africa. What bothered Singer was that he had been bringing Drennan 'hundreds and hundreds of fossils every weekend' but when the skull was discovered, Drennan said, 'Singer, this is the answer to my dreams … I'd always been hoping to find Stellenbosch Man, and I think we have it now. I've always believed in it, and therefore I must describe the skull.'

Singer was especially bitter because he 'felt that here was an example of an old man trying to steal a bit of glory where he doesn't need it. He has enough. He is head of the department. He is recognised in Cape Town as being *the* [Singer's emphasis] anthropologist. In the newspapers he gets quoted.'

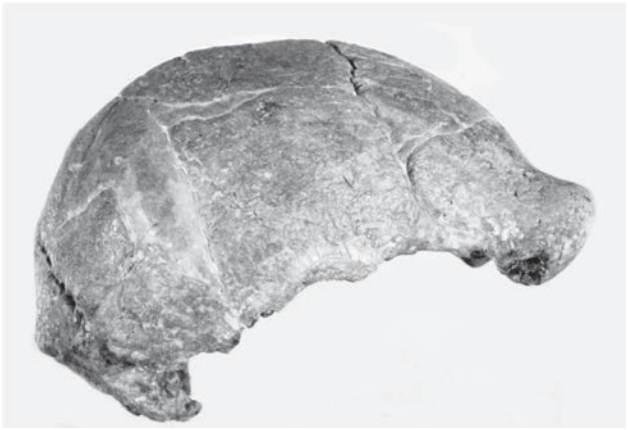
Indeed, Drennan did publish the first description of the cranium (Drennan 1953b). He relented after this publication and gave Singer permission to publish his own paper (Singer 1954), and to join him in describing the mandible (Drennan and Singer 1955). Now Ted Keen was the aggrieved party, as Singer and he had agreed to acquiesce to Drennan's demand to describe the skull and leave the faunal material to the two of them. Keen published some of the faunal material (Singer and Keen 1956a, 1956b) but never forgave Singer for publishing on the human material, and their personal relations soured.

At this point Jolly began to express complaints that Singer was trying to steal the glory of the discovery from him. In fact, Drennan had been very careful to ensure that Jolly was noted as the discoverer in each of his papers, while Singer's 1954 paper had the two of them sharing equal glory. According to Singer, 'I have always said that Jolly found the first pieces, but I have also said that I also found some pieces and that they were all part of the critical picture, and therefore if we are going to talk about the discovery, I have to be a co-discoverer of some sort.'

The acrimony was loud enough that Goodwin asked Drennan for a formal clarification of the sequence of discovery. Drennan was concerned that the fragments were simply picked up from the ground and that neither Singer nor Jolly had actually made any special search after the day of discovery, 'although they stayed on two more days at the site'. They brought the fragments to Drennan on their return and presented them 'as some tit-bits they had found which Dr Keen had been non-committal about'.

A week later Jolly, Singer, Mabbutt and Drennan went back to the site, but could find nothing more at the place of discovery. That evening Singer produced a small fragment of bone that fitted perfectly with the pieces collected by Jolly. When Drennan asked, 'Where did you pick it up?', Singer said he had found it on his way home from the tent. The fact that this piece had come from from the place of original discovery some distance away presented a conundrum that bothered Drennan, as there was no easy explanation for how it could have been transported from one site to the other without human agency. Drennan told Goodwin that he 'would welcome any suggestion for a suitable explanation'. None was forthcoming.

According to his brother-in-law, Ted Keen, Jolly was 'a very difficult character' who never had an academic job despite being very clever. As chair of the multi-department committee, Drennan had hired Jolly to run the fieldwork at Elandsfontein over the objections of Goodwin. The vice chancellor, TB Davie, had insisted that Jolly be part of archaeology, as placing him in anatomy would have prevented the university from finding funding for the archaeological fieldwork.



The Saldanha skull after reconstruction. The fossil site itself is known by the name of the farm, Elandsfontein, but the official designation of the fossil specimen is Saldanha 1. (Iziko Museum)

Goodwin was extremely concerned that the quality of fieldwork at the site was not good enough, especially after the letter from Drennan describing the context of the discovery of the hominin skull fragments, but Goodwin had no effective control over Jolly since he was managed and paid by Drennan.

Jolly had a degree in archaeology from Cambridge and had worked on the Peers Cave site on the Cape Peninsula in the 1940s but his real claim to employment at the Elandsfontein site was his mother's presence on the UCT council. Relations with Goodwin were particularly frosty because Goodwin felt that Jolly's methods were not systematic enough. Although Goodwin was nominally Jolly's supervisor, months would go by without Jolly submitting reports verbally or in writting. Goodwin noted that Jolly rarely, if ever, recorded localities for the discovery of specific bones.

Singer went so far as to accuse Jolly of salting the site with stone tools to give a better association between fauna and human activity. Things were even more awkward for Goodwin because he was officially Jolly's Cambridge doctoral supervisor until Cambridge finally withdrew Jolly's registration in December 1952. Eventually, Jolly's lack of professionalism and failure to advance the excavation convinced Drennan to fire him, but he was blocked by vice chancellor Davie. Jolly became more and more difficult to work with and the complaints against him from Singer and others continued until he was finally released from the site in 1954.

Goodwin, who now had sole control of archaeological matters at the site, was becoming disenchanted with Drennan's management. Writing to Kenneth Oakley at the British Museum, Goodwin commented: 'I fear I distrust the medical approach, diagnosis from symptoms, with a vast proportion of intuition.' Goodwin was also concerned because Drennan would not support detailed dating attempts, as 'they would merely muddle our deductions regarding evolutionary studies'.

With Goodwin trusting neither Drennan nor Jolly, Singer and Keen unhappy about Drennan, Keen wary of Singer, and Jolly complaining about being overlooked and then fired, the relationships on the site were toxic, and almost no solid archaeology with good contexts for the discoveries was being done. Things finally changed after the death of Goodwin and the hiring in 1959 of Professor RR (Ray) Inskeep as head of archaeology at UCT. Ted Keen left to go to Natal, Drennan had retired and Jolly had been removed. Singer and Inskeep worked well together and for the first time the first real systematic and properly recorded excavations were conducted on the site (Singer and Wymer 1968).

EN (Ted) Keen holding stone and bone artefacts at the Elandsfontein fossil site, circa 1953. (Department of Human Biology, University of Cape Town)

References

Drennan, MR. 1953a. *A New Race of Prehistoric Men: The Saldanha Skull. Illustrated London News*, 26 September: 480–483.

Drennan, MR. 1953b. A Preliminary Note on the Saldanha Skull. *South African Journal of Science* 50(1): 7–11.

Drennan, MR & Singer, R. 1955. A Mandibular Fragment, Probably of the Saldanha Skull. *Nature* 175: 364–365.

Singer, R. 1954. The Saldanha Skull from Hopefield, South Africa. *American Journal of Physical Anthropology* 12(3): 345–362.

Singer, R & Wymer, J. 1968. Archaeological Investigations at the Saldanha Skull Site in South Africa. *South African Archaeological Bulletin* 23(91): 63–74.

ARCHAEOLOGY IN AFRICA

'Little Foot' fossil sheds light on human origins
Sophisticated scanning technology is revealing intriguing secrets about Little Foot, the remarkable fossil of an early human forerunner that inhabited South Africa 3,67 million years ago during a critical juncture in our evolutionary history. Key parts of the nearly complete and well-preserved fossil were examined at Britain's national synchrotron facility. Scanning focused upon the upper part of her braincase and her mandible. This provided insight not only into the biology of Little Foot's species but also into the hardships that this individual, an adult female, encountered during her life.

Little Foot's species blended ape-like and human-like traits and is considered a possible direct ancestor of humans. Wits University paleoanthropologist Ron Clarke, who unearthed the fossil in the 1990s in the Sterkfontein Caves, has identified the species as *Australopithecus prometheus*.

'In the cranial vault we could identify the vascular canals in the spongious bone that are probably involved in brain thermoregulation – how the brain cools down,' said University of Cambridge paleoanthropologist Amélie Beaudet, who led the study published in *e-Life*. 'This is very interesting as we did not have much information about that system,' she added, noting that it likely played a key role in the threefold brain size increase from *Australopithecus* to modern humans. Little Foot's teeth also were revealing. 'The dental tissues are really well preserved. She was relatively old since her teeth are quite worn,' Beaudet said. Defects were spotted in the tooth enamel indicative of two childhood bouts of physiological stress such as disease or malnutrition.

Little Foot has been compared in importance to the fossil called Lucy that is about 3,2 million years old and less complete. Both are species of the genus *Australopithecus* but possessed different biological traits. Lucy's species is called *Australopithecus afarensis.* The species was able to walk fully upright but had traits suggesting it also still climbed trees, perhaps sleeping there to avoid large predators. It had gorilla-like facial features and powerful hands for climbing. Its legs were longer than its arms, as in modern humans, making this the most ancient hominin definitively known to have that trait.

Reuters, 02/03/2021

Climate change threatens African heritage
As the effects of climate change continue to cause significant damage across the globe, recent research led by the University of Cape Town's (UCT) African Climate and Development Initiative (ACDI) revealed that heritage sites of 'outstanding and universal value' located along the African coast are at threat to rising sea levels. The global team of climate risk and heritage experts led by Dr Nicholas Simpson have presented their first comprehensive assessment detailing how African cultural and heritage sites are exposed to high sea levels and associated erosion. Their research was published in *Nature Climate Change.*

The team spent a year identifying and mapping the boundaries of 284 African coastal heritage sites. Then they modelled the exposure of each site using future global warming scenarios. The researchers uncovered several ground-breaking findings. Fifty-six sites surveyed, including the iconic ruins of Tipasa in Algeria and the North Sinai archaeological Sites Zone in Egypt, are at risk of being affected by once-in-a-century-type extreme high sea levels. By 2050, the number of exposed sites is expected to triple. About 191 sites are likely to be affected by moderate and 198 by high emissions. At least a further 151 other natural and 40 cultural sites are at risk of being exposed to rising sea levels from 2050 onwards.

Several countries are projected to have all their coastal heritage sites exposed to the 100-year extreme coastal event by the end of the century. The list includes Cameroon, the Democratic Republic of Congo, Djibouti, Western Sahara, Libya, Mozambique, Mauritania and Namibia. In the worst-case scenario, Côte d'Ivoire, Cabo Verde, Sudan and Tanzania could also be affected. The ACDI's Dr Christopher Trisos said if climate change mitigation successfully reduces greenhouse gas emissions from a high-emissions path to a moderate emissions path, by 2050 the number of highly exposed sites could reduce by 25 per cent. *Heritage Portal*

Large quantity of ostraca found in Egypt
Archaeologist have discovered 18 000 ostraca, or inscribed pottery fragments that essentially served as 'notepads', at the ancient Egyptian temple of Athribis, located about 190 km north of Luxor. Ranging from shopping lists and trade records to schoolwork, the fragments offer a sense of daily life in the city some 2 000 years ago. The trove is the second-largest collection of ostraca ever found in Egypt. Ancient Egyptians viewed ostraca as a cheaper alternative to papyrus. Though most of the ostraca unearthed in Athribis contain writing, the team also found pictorial ostraca depicting animals like scorpions and swallows, humans, geometric figures and deities, according to Germany's University of Tübingen.

Science Alert, February 2022

ROCK ART AT THE PROZESKY SHELTER, KWAZULU-NATAL

A scene in which an eland is killed

Francis Thackeray

Examples of rock art in which eland and people are closely associated in realistic or imaginary contexts have been examined by Pieter Jolly (2021). One example (part of which is shown in Fig. 1) is a painting at the Prozesky Shelter in the Newcastle District, KwaZulu- Natal, copied by Harald Pager (1975, p. 82). It includes an image of an eland with its head down, which is reminiscent of other paintings interpreted by Lewis-Williams (1981) in the context of the death of eland, trance and shamans. In the same scene Thackeray (1988) noted an individual apparently jumping over the eland and pointed to the possibility that this kind of behaviour might relate to Nguni concepts associated with initiation (*isilo*).

Fig. 1: Copy of a scene at Prozesky Shelter (Pager 1975,: 82) (© ADEVA Publishers).

Here I propose ten possibilities regarding part of the Prozesky Shelter panel (see annotated Fig. 2):

1. Individuals A, B and C are associated with the killing of an eland.
2. Individual A is holding down the eland's head, preventing the eland from moving or bolting.
3. Individual B is holding the back of the eland with both hands, while keeping a foot on one leg of the animal, likewise preventing it from moving or bolting.
4. Individual C is wounding the eland in its soft, vulnerable belly. He is clinging on with his legs clasped onto the rear sides of the eland. His hands are holding onto a spear that is firmly embedded in the belly.
5. The eland, head down, is bleeding from the nose in the throes of death.
6. Individual D, who is leaping over the body of the dying eland, is bleeding from the nose, which is associated with epistaxis as a result of exertion in dance.
7. Individual E is also bleeding from the nose.
8. Sometime after the image was painted (with animal blood having been used as an ingredient of the paint), a person visited the site and symbolically wounded the painted eland by pecking at its side (Figs 1 and 2), close to the area where a painter had depicted blood issuing down in two streams from a wound. This act of symbolically wounding the image of an animal was perceived to contribute to success in a forthcoming hunt, the so called 'sympathetic hunting magic' of the kind recorded by Lebzelter (1934) and discussed by Thackeray (2005).
9. The paint that was pecked off was perceived to have supernatural potency of the kind known as /*nom*.
10. The paint removed by pecking (cf. symbolic wounding) was used (as powder) in subsequent ritual or as 'medicine'.

As in the case of his copies of art from Ndedema, Harald Pager was extremely careful to record exactly

Francis Thackeray is an Honorary Research Associate of the Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa. mrsples@global.co.za.

where damage had occurred to paintings on cave or shelter walls. In most if not all cases such damage would have been due to exfoliation. In the case of the Prozesky Shelter panel, it is my suggestion that damage on a specific part of the body of the eland was the result of deliberate pecking. This suggestion is informed by the following:

a) The damage is confined to one area (Fig. 1).
b) The damage is confined to an area adjacent to the depiction of a wound on the eland, as indicated by two streams of blood (Fig. 2).
c) In recent times 'diviners' are known to have pecked paintings to remove paint for 'medicinal' purposes (Pieter Jolly, personal communication, 7 January 2022).

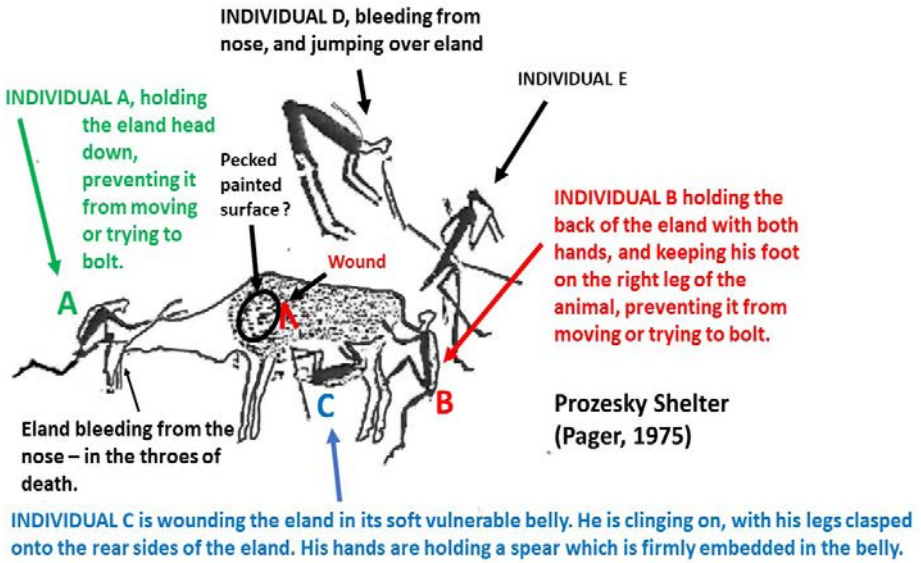


Fig. 2: Annotated copy of a scene at Prozesky Shelter (Pager 1975: 82). An eland is being killed (detail from Fig. 1, © ADEVA Publishers).

Of all the five individuals (A to E) shown in close association with the eland in Fig. 2, only one (C) is shown in the act of killing the eland. Noting that individual D is bleeding from the nose and apparently jumping over the eland, one may question whether this represents a trance-related activity performed at the time when the eland was in the throes of death.

Pieter Jolly's (2021) novel interpretation is that docile eland may on occasion have been driven close to rock shelters where they were killed. However, he also suggests that an eland may have been chased by the San to the point of exhaustion, away from their camp, and that this is followed by the performance of a rite involving close physical contact with the still living but helpless animal (Jolly 2021: 118, 130). I suggest that part of the Prozesky panel relates to a ritual in which some individuals are associated with the death of an eland (bleeding from the nose) in a non-shamanistic activity (notably individuals A, B and C with no nasal bleeding). I also suggest that individual D (not necessarily a shaman) is performing a trance-related activity associated with epistaxis, symbolically associated with the eland's death.

Acknowledgements

ADEVA Publishers are thanked for permission to reproduce Harald Pager's copy of the painting at Prozesky Shelter. I am grateful to Pieter Jolly and Peter Knox-Shaw for comments during preparation of this article. I dedicate this article to Harald Pager.

References

Jolly, P. 2021. Rock paintings which may depict live eland being used in San rites. *Southern African Humanities* 34: 111–36.

Lebzelter, V. 1934. *Rassen und Kulturen in SudAfrika.* Leipzig: Hiersemann.

Lewis-Williams, JD. 1981. *Believing and Seeing: Symbolic Meanings in Southern San Paintings*. London: Academic Press.

Pager, H. 1975. *Stone Age Myth and Magic as Documented in the Rock Paintings of South Africa.* Graz: Akademische Druck- und Verlagsanstalt.

Thackeray, JF. 2005. The wounded roan: a contribution to the relation of hunting and trance in southern African rock art. *Antiquity* 79: 5–18.

ARCHAEOLOGY IN BRIEF

Oldest green-plant fossil?

Scientists have spotted in rocks from northern China what may be the oldest fossils of a green plant ever found: a tiny seaweed that carpeted areas of the sea floor roughly a billion years ago and were part of a primordial revolution among life on earth. The plant, called *Proterocladus antiquus*, was about the size of a rice grain and thrived in shallow water. A form of green algae, it was one of the largest organisms of its time, sharing the seas mainly with bacteria and other microbes. '*Proterocladus antiquus* is a close relative of the ancestor of all green plants alive today,' said Qing Tang of Virginia Tech, who detected the fossils in rock dug up in Liaoning Province. The first land plants, thought to be descendants of green seaweeds, appeared about 450 million years ago. *Proterocladus* is 200 million years older than the previous earliest-known green seaweed.

Nature Ecology & Evolution, 24/02/2020

ARCHAEOLOGY, OUTREACH, AND EDUCATION
HOW DO WE MAKE A LASTING DIFFERENCE?

Dawn Green

I live, research and work in the Joe Gqabi District Municipality that covers a vast section of the northern Eastern Cape Province from the Gariep Dam in the west to the southern Maloti-Drakensberg in the east (Fig. 1). This district has a rich and varied past and living, tangible and intangible, heritage from San, Khoekhoe, Sotho-Tswana, Sotho, Xhosa, European and mixed-heritage people and their descendants who have lived in and moved through this landscape.

For 20 years I have been involved in a reciprocal sharing of archaeological knowledge with the varied communities of this area. This work has been in partnership with the South African Archaeological Society (ArchSoc); national, provincial and local government; and international funding programmes. It focuses on education, information distribution and socio-economic development. This experience has led to an appreciation of the problems and challenges for archaeologists and their work in social transformation.

Education

An important part of conservation is education; we cannot conserve that which we do not know about. If there is important human or natural heritage in an area, people cannot conserve it without understanding something about it. Educating school children about important places of natural and cultural heritage in the areas that they live in are important because it makes heritage real and accessible. I specialise in rock art archaeology and have assumed that most children living in the southern Maloti-Drakensberg mountains know something about rock art. Many do not. Some of the outings I have organised to rock art sites have been a first for the youths. Some of them have never been outside of the towns they live in. These visits are instrumental in creating a real and tangible understanding about people in the past and their lifeways, but also the biodiverse landscapes in which they live.

For younger children, our sessions focused on speaking about the natural and cultural heritage of our area. The children made drawings of what they thought was important about this heritage. We took these drawings and the children painted them on the bus shelters in our local community (Fig. 2). This gave the younger children an insight into the importance of conservation and of actively participating in it.

Dawn Green is a PhD student at the Department of Archaeology, University of Cape Town. dawn@beddgelert.co.za.

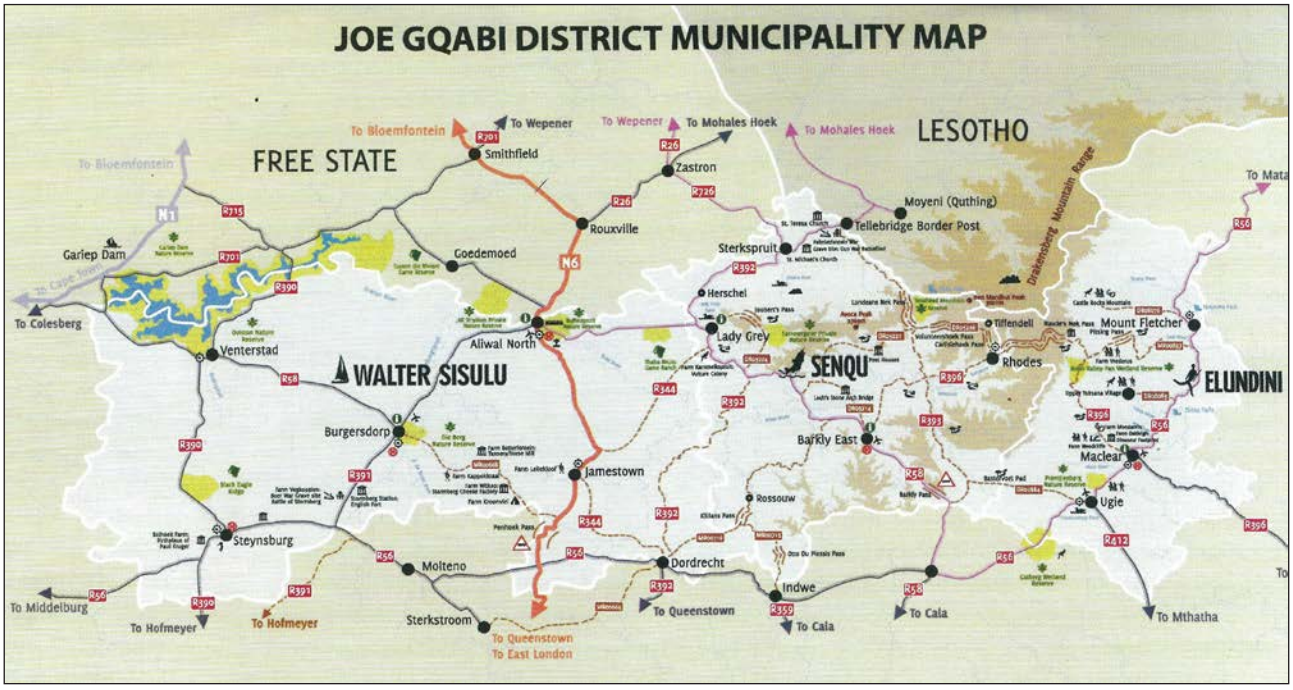


Fig. 1: The Joe Gqabi District showing local municipalities (after Barkly East Reporter, 2017)

Fig. 2: Bus shelters painted by local farm school children

I was approached by Senqu Local Municipality, one of three in our district, to write a booklet on the rock paintings of our areas to provide information to locals and visitors (Green 2017; Fig. 3). They had funding to produce only 50 copies, which limited distribution to the Barkly East Museum. To enable wider distribution throughout the district I applied for funding to reprint 1 000 copies. Senqu provided half the funding, and the other half came from ArchSoc. The *Barkly East Reporter* published the booklet and local industry thus also benefited.

The booklets have been distributed to local communities throughout the district for use as education and conservation material, but the museums in Barkly East, Burgersdorp and Aliwal North have been of central focus for their education and outreach programmes. Of special attention are museums in the western parts of our district because they lack these types of information. The booklet is freely available online at www.researchgate. net/publication/322951928_2017_Green_Rock_Art_of_Joe_Gqabi_District).

Access to information

When I began to investigate the archaeology of this area in the 1990s, and especially its rock art, my research was severely hampered by a lack of access to information. I was reliant on the kindness and generosity of university academics and museum staff, especially Sven Ouzman, who was at the time head of rock art research at the National Museum in Bloemfontein. It was only when I registered to study archaeology at the University of South Africa that a wealth of information was made available to me, both through their online services and their extremely efficient library.

Even with my privilege, my own struggle to 'know more' has made me acutely aware of the challenges facing most people living in this rural district. Transport to museums and access to the internet are expensive. Often online information is not available, and one needs some skill with search engines to find what is pertinent. We have two government- supported museums and a few private ones, all of which are very underfunded.

One of the important aspects of community work is providing access to and sharing information. David Pearce from the Wits Rock Art Research Institute (RARI) generously donated two copies of his and David Lewis-Williams' book *San Spirituality*, which gives a detailed interpretation of San rock art, while Stephen Townley Bassett kindly made available two copies of his book *Reservoirs of Potency*, which focuses on his work documenting San paintings. Further, Reinoud Boers, on behalf of ArchSoc generously donated two copies of *On the Trail of Qing and Orpen* by De Prada-Samper et al., which is pertinent for the Senqu Municipality where Joseph Orpen lived. These books were given to the Barkly East and the Burgersdorp museums. They have also been provided with other articles of interest for students and visitors to use in their outreach programmes. If anyone has reference materials they would like to donate to the museums or to use in educational outreach, please contact me.

Socio-economic development

A number of South African programmes and partnerships with international funding agencies have been aimed at socio-economic development in

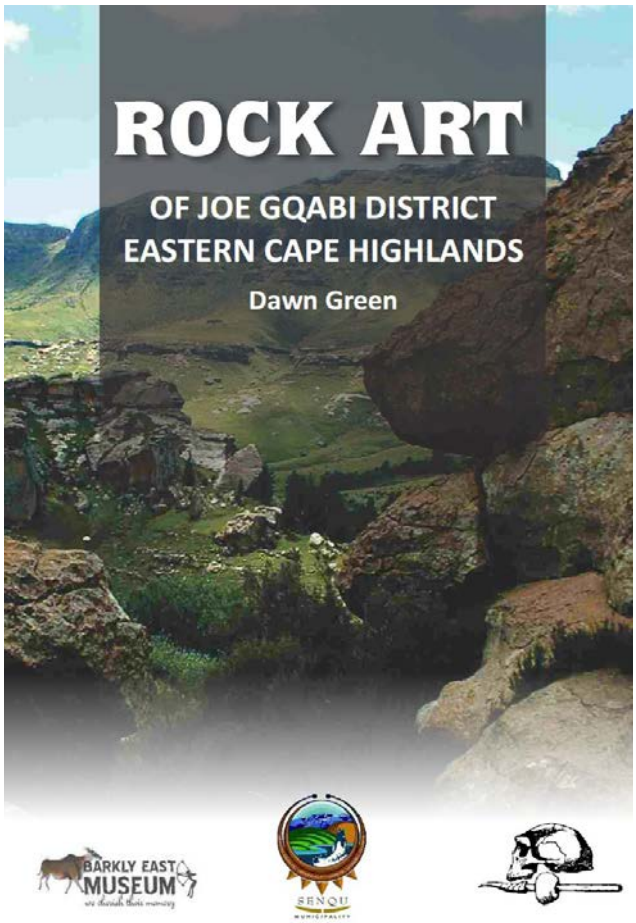


Fig. 3: Cover of the Rock art of Joe Gqabi booklet

the Joe Gqabi District. One of these was a museum regeneration project directed at three local museums and was undertaken with emeritus professor of architecture, Roger Fisher. This project led to the museums having the confidence to radically change their approaches to and presentations of the past and establishing a rock art exhibition at the Barkly East Museum. However, most of the other projects have been unsustainable without continued funding support and this situation has led me to question my research practice and approach to community engagement.

Archaeology and social transformation

My research into community work and heritage as a nexus for social transformation has included listening to the experience of and asking advice from other archaeologists who work with local communities (Janette Deacon, David Morris, Sam Challis and Ben Smith) and reading various publications on education and social development in archaeology (eg Shepherd 2006, 2013, 2019; King 2012; Eoin and King 2013; Giblin et al. 2014; Jopela and Fredriksen 2015; Mokoena 2016, 2017; Ndlovu 2016a & b; Schmidt and Pikirayi 2016; Challis 2018; Schmidt and Arthur 2018; Schmidt and Kehoe 2019; Meskell 2020). The crux of the problem in exploring heritage for social transformation is what I define as the money-knowledge-power relation. When it comes to project funding, local communities become dependent on the funding. This is especially acute in the rural areas of the Joe Gqabi District where people are extremely poor, with few job opportunities or opportunities for further study. This can create imbalances between the funders, the project drivers and the so-called recipients or beneficiaries. Unfortunately, in some cases, the communities feel they do not have a voice. This does not mean that communities are not knowledgeable or resourceful and it is this initiative-taking that should be utilised and developed.

Also problematic is the choice of knowledge projects. Often, we will focus on our own areas of expertise or interest when undertaking research, education or development projects. This can lead to our telling communities what heritage is important, instead of asking them what heritage is important to them. To expand and burgeon communities and their knowledge, expertise and ability to manage projects and be independent, it seems obvious that this question should be the starting point. We should focus on the aspects of heritage that are relevant to them while at the same time establishing the importance of conserving heritage.

Of additional concern is the way we share our research findings. Often our publications are aimed at academia, which can exclude most of our local communities, including the communities where we undertake our research. Exploring how we can share our research findings through workshops, storytelling, song and dance seems essential to democratise and community-orient our knowledge productions.

Fig. 4: Nosipho Mgauli and learners from Sterkspruit

To investigate the ways in which we can alleviate or avoid the money-knowledge-power relation, I, with the expert help from Nosipho Mgauli, a teacher at the Sterkspruit Senior Secondary School, have started an unfunded heritage project with youth from the Herschel District (Fig. 4). We hope to learn from each other and identify and record the rich heritage in this part of our district in a way that utilises and grows the resources that we each have. It is a long-term project that we hope will lead to the establishment of a heritage organisation that is managed and owned by the youth involved and the community, with possible economic opportunities. Please contact me if you have any advice or learning materials that could assist us.

Questioning your membership of ArchSoc?

Don't! Your membership fees play an essential role in supporting archaeological development work in South Africa. In these difficult times, when we are all looking to streamline our budgets, keep your membership of ArchSoc as an essential contribution because of the importance of the society's support.

Archaeology is not an academic, irrelevant study of people in the near and distant past but rather a personhood-knowledge-making that informs the present and the multiple identities that we all can claim (Almeida and Kumalo 2018). Every archaeologist should get to know the communities where their research is based and share their knowledge. Whether this is through school or community presentations, outings to heritage sites, assisting museums in outreach programmes or longer-term projects, such a relationship with communities leads to reciprocal sharing and learning that enriches practice – both ours and theirs. We can make a difference together.

Acknowledgements

I am very grateful to the communities of the Joe Gqabi District Municipality and their generosity and support in sharing their knowledge and landscapes. I thank the museums and schools of the district, Senqu Local Municipality, Joe Gqabi District Municipality, the Department of Sports, Arts and Culture, the Eastern Cape provincial government and the Thina Sinako Programme of the European Union for their support over the years. The generous funding from ArchSoc is greatly appreciated. I am indebted to Nosipho Mgauli for her friendship and generosity in sharing her expertise and knowledge of the Herschel area.

References

Almeida, S & Kumalo, SH. 2018. (De)coloniality through indigeneity: deconstructing calls to decolonise in the South African and Canadian University Contexts. *Education as Change* 22(1): 1–24.

Challis, S. 2018. Collections, collecting and collectives: gathering heritage data with communities in the mountains of Matatiele and Lesotho, southern Africa. *African Archaeological Review* 35(2): 257–268. Eoin, N & King, R. 2013. How to develop intangible heritage: the case of Metolong Dam, Lesotho. *World Archaeology* 45(4): 653–669.

Giblin, J, King, R & Smith, B. 2014. Introduction: de-centring ethical assumptions by re-centring ethical debate in African archaeology. *Azania: Archaeological Research in Africa* 49(2): 131–135.

Green, D. 2017. *Rock art of Joe Gqabi District Eastern Cape highlands*. Barkly East: Barkly East Reporter.

Jopela, A & Fredriksen, PD. 2015. Public archaeology, knowledge meetings and heritage ethics in Southern Africa: an approach from Mozambique. *World Archaeology* 47(2): 261–284.

King, R 2012. Teaching archaeological pasts in South Africa: historical and contemporary considerations of archaeological education. *Arch* 8: 85–115.

Meskell, L. 2020. Toilets first, temples second: adopting heritage in neoliberal India. *International Journal of Heritage Studies,* 1-19.

Mokoena, N. 2016. Community-involved heritage management: the case of Matatiele. Johannesburg: University of the Witwatersrand.

Mokoena, N. 2017. Community involvement and heritage management in rural South Africa. *Journal of Community Archaeology & Heritage* 4(3): 189–202.

Ndlovu, N. 2016a. The management of heritage resources in the Maloti-Drakensberg Park, Lesotho-South Africa: reflecting on the benefits of World Heritage status. *Southern African Humanities* 28: 103–17.

Ndlovu, N. 2016b. Old archaeology camouflaged as new and inclusive? South African community archaeology in the twenty-first century. In P Schmidt & I Pikirayi (eds), *Community Archaeology and Heritage in Africa: Decolonising practice*. New York: Routledge.

Schmidt, P & Pikirayi, I (eds). 2016. *Community Archaeology and Heritage in Africa: Decolonising practice*. New York: Routledge.

Schmidt, P & Arthur, K. 2018. Community-based approaches to African History. *Oxford Research Encyclopedia of African History.*

Schmidt, PR & Kehoe, AB. 2019. *Archaeologies of Listening*. University Press of Florida.

Shepherd, N. 2006. What does it mean to give the past back to the people? Archaeology and ethics in the Postcolony. In Y Hamilakis & P Duke (eds), *Archaeology and Capitalism: From ethics to politics*: 99–114. London: UCL Press.

Shepherd, N. 2013. Contemporary archaeology in the Postcolony: disciplinary entrapments, subaltern epistemologies. In P Graves-Brown & R Harrison (eds). *The Oxford Handbook of the Archaeology of the Contemporary World:* 425–436. Oxford: Oxford University Press.

Shepherd, N. 2019. Archaeology in the shadow of apartheid: race, science and prehistory. *South African Archaeological Bulletin* 12: 13–21.

OSTEOBIOGRAPHIES IN SUPPORT OF NEW KNOWLEDGE AND COLLABORATION

Susan Pfeiffer

Not so long ago, the archaeological recovery of human remains formed the foundation of race science. Adult skulls would be studied for clues to the origin and miscegenation of races in the past. The other bones from a site would often be discarded since they were uninformative. As conflicting scientific evidence accumulated and the idea of distinct human races was abandoned, it became clear that the research of that era was unhelpful (to say the least!).

Fortunately, as one door closed, another opened. Information from diverse scientific fields, including anatomy, dentistry, pathology, chemistry and genomics, can be combined to reconstruct many features of peoples' lives from their bones and teeth. Every part of every skeleton – juvenile as well as adult – can be informative. Even a single tooth can be very informative. Since this information about the person or the community is akin to a biography, it constitutes an osteobiography, a story of life. Osteobiographies give a human 'face' to stories of the distant past and can provide descendant communities with new information about their ancestors. That new information can help build bridges between researchers and the public.

I have written a book on this topic, recently published by Academic Press (see book details below). My bioarchaeological research in Africa constitutes about half of its content. I was keen to focus on Africa, to tell accessible stories about the people of its prehistoric past. People in Africa should be able to read about their own geographic and social context. People from elsewhere should be enticed to take note of Africa's fascinating stories. In addition to the paperback, ebook chapters are available through the Elsevier ScienceDirect platform, to which many academic and government institutions subscribe.

The book introduces many basic tenets of the excavation and analysis of human remains through examples from my North American research. Case studies include an historic settler cemetery, soldiers from the War of 1812, and indigenous cemeteries from different cultural contexts. The preparation and completion of a large repatriation of indigenous ancestors of the Huron-Wendat Nation is detailed.

Five chapters outline how osteobiographies can usefully enrich our understanding of the African past. Africa's bioarchaeological context differs from that of North America because of the greater time depth and the fact that past research was often influenced by a colonialist mindset. African indigenous and cultural contexts, as well as the colonialism that has influenced past scholarship and collecting are introduced in one chapter. Another describes the discovery and interpretation of one skeleton from one 5 000-year-old cemetery in the Turkana district of northern Kenya, about which relatively little is known.

A chapter focuses on southern Africa, delving more deeply into the environment, the archaeologically based narrative and history as it pertains to the Khoe-San community. I explain how strongly held views, like ideas about the origin of the 'bushmen', held back scholarship. An osteobiographic overview of the lives of ancient Khoe-San hunter-gatherers, including features of life history and evidence of interpersonal violence, mostly against women and children, is discussed in depth. While new evidence may shift future views, my provisional conclusion is that the violent deaths from a narrowly delimited region and time reflect coalitionary violence with 'social substitutability', ie the idea that any member of a community can be a target of attack by virtue of their membership. In many cases, osteobiographies provide substantiation for ideas arising from historical, ethnographic or archaeological evidence. On the other hand, the example of interpersonal violence among ancestral Khoe-San people shows how osteobiography can expand our understanding of the past in a manner unobserved by other lines of evidence.

Another chapter focuses on repatriation in an African context, including case studies in which historically known individuals have been repatriated and other instances in which unnamed persons have been the focus. The final chapter compares the repatriation of human remains with the return of objects held by museums. I suggest that the generation of a more broadly held set of principles that would apply to both domains is both feasible and desirable.

Discoveries of human remains will continue. When they occur, scientific exploration should be part of the discovery process and should be carried out in collaboration with the descendants if that link can be ascertained. Globally, there are many human skeletons and parts of skeletons held by institutions. Many past studies, made under the flawed perspective of race science, generated results that bear little relation to the information and insights that are possible today.

Susan Pfeiffer is a Professor Emerita at the University of Toronto. She has done research in southern African archaeology for over thirty years. susan.pfeiffer@utoronto.ca.

For those collections that can be repatriated, fresh scholarship, done in collaboration with descendants, can help to tell ancestors' stories. South African researchers, like the team at UCT working with the Sutherland community, have been leaders in this respect. The repatriation of human remains presents many challenges. It is both similar to and different from the repatriation of culturally important objects. As with those objects, human remains enhanced by osteobiographies can be sources of restitution, empowerment and new knowledge.

Reference

Pfeiffer, S. 2022. *Osteobiographies: The discovery, interpretation and repatriation of human remains*. Cambridge, Mass: Academic Press. Price: US$ 110,50. https://www.elsevier.com/books/osteobiographies/pfeiffer/978-0-12-823880-6.

WORLD ARCHAEOLOGY

Remains of 250 sacrificed children found in Peru

Archaeologists in Peru have uncovered the remains of around 250 children sacrificed by the pre-Columbian Chimú civilisation. The remains found at Pampa La Cruz are of children aged from four to 12 years and 40 warriors sacrificed between the 13th and 15th centuries. The Chimú civilisation inhabited northern Peru before they were conquered by the Inca. They built Chan Chan, the largest city in pre-Columbian South America. Archaeologists say the children were sacrificed to the Chimú gods in an attempt to end natural disasters linked with the El Niño phenomenon. Four mass sacrifices were made between 1200 and 1450, three involving children and the last one animals. There are signs the children were killed during wet weather and buried facing the sea. Some still had teeth and hair. In June 2018, the remains of 56 people were found at Pampa La Cruz and in April that year the skeletal remains of 140 children and 200 baby llamas were found nearby**.** Skeletal remains of both children and animals show evidence of cuts to the sternum as well as rib dislocations. As well as Chan Chan, the largest mud brick city in the world, the Chimú built huge civil engineering projects that irrigated the desert of coastal Peru. *AFP, 28/08/2019*

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.

Cape Town head office: PO Box 15700, Vlaeberg, 8018.
T: +27 (0)21 762 7347, +27 (0)72 635 2815.
F: +27 (0)866 155 874. archsoc@iziko.org.za.
www.archaeology.org.za.

Northern Branch: PO Box 41050, Craighall, 2024
Membership Secretary: Barry Jacoby
+27 (0)83 228 1692
barrydane45@gmail.com

Western Cape Branch: PO Box 426, Muizenberg, 7950
Chairperson: Yvonne Viljoen
+27 (0)82 416 0032
yv3@mweb.co.za

Trans-!Gariep Branch: David Morris
+27 (0)53 839 2706
dmorris@museumsnc.co.za

KwaZulu-Natal Branch: c/o KZN Museum, P/Bag 9070, Pietermaritzburg, 3200
Secretary: Gavin Whitelaw
+27 (0)33 345 1404
gwhitelaw@msa.org.za

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 2022: South Africa: Ordinary – R345; Joint/Family – R365; Junior members – R235. Africa ordinary – R405; Overseas ordinary – R745. Institutions: local and African – R690; Overseas – R1 525.

The Digging Stick

Editor and advertising: Reinoud Boers
PO Box 2196, Rivonia, 2128
Tel/fax: +27 (0)11 803 2681
Cell: +27 (0)82 566 6295
fox@boers.org.za
Proofreader: Dawn Green
Layout: Leonard Mafunga
Printer: TVaal Johannesburg