



FLYWHISKS IN !XAM STORIES AND ROCK ART

José Manuel de Prada-Samper

Flywhisks (also called fly-switches) are among the objects more frequently depicted in southern African rock art. According to Patricia Vinnicombe (1976: 272), they were made 'from grass or the tail of an animal such as a jackal, hyena or gnu'. Citing travellers' accounts, Vinnicombe states that the Khoisan used them 'as a type of handkerchief to mop up perspiration', although they could also serve to convey signals and 'played an important part in certain dances'. Lewis-Williams (1981: 78, 1990: 63) has noted the presence of flywhisks in rock art and their connection with the trance dance, but has not, as far as I know, elaborated on their possible symbolism.



Fig. 1: A group of sengis at Sprinbokoog's main site, Northern Cape. The sengi on the lower left appears to be holding a flywhisk.

Although Lorna Marshall's !kung informants of the 1950s did not attach any special significance to the articles used in their trance dance (which included flywhisks) or had forgotten what this could be (1999: 69), among other Kalahari groups they are still an important component of the paraphernalia of the healer. Thus, the Eastwoods in their description of a Khwe healing dance tell how the healer pointed to the unseen spirits with the flywhisk and also 'dragged' it over his patients' faces as a way to rid them of sickness (Eastwood and Eastwood 2006: 118).

The rock engravings found in the former !xam homeland include images of flywhisks, which were depicted according to conventions similar to those used in the paintings. The fact that we possess a solid body of ethnography from that area in the form of the Bleek-Lloyd Collection gives us a rare opportunity to have at least a glimpse of what significance flywhisks had in

!xam art and thought, since these objects are mentioned and described in several stories and testimonies.

OTHER FEATURES IN THIS ISSUE

- 5 Legplekken – from tradition to dispossession – *Nigel Amschwand*
- 8 ArchSoc's President and Vice-President for 2016–2018
- 9 On the trail of Qing and Orpen – *Jill Weintraub and John Wright*
- 12 Honorary doctorate awarded to Janette Deacon
- 13 Travelling at the edge of China – *Reinoud Boers*
- 18 High court order stops mining at Canteen Kopje

José Manuel de Prada-Samper is a Research Associate in the Department of Archaeology and an Associate Research Fellow in the Archive and Public Culture Research Initiative, University of Cape Town. josemanuel@deprada.net

A detailed description of the |xam flywhisk was given by |han̩≠kass'o. It is found in an unpublished gloss to the story '!gaunu-t saxau (the son of Mantis), the Baboons and the Mantis' (L.VIII.11: 7006'-7008'). The |xam teacher told Lloyd that the ideal material for a flywhisk, called *!nabbe* in |xam, was the tail of the *!khwi*, a creature described as a 'fieldmouse' in the dictionary (Bleek 1956: 433), but which, from a description elsewhere in the records (L.VIII.17: 7527'), we can confidently identify as a whistling rat of the genus *Parotomys*. The |xam used the whole of the *!khwi*'s tail, but not before heating it to prevent decay. Other animals mentioned by |han̩≠kass'o in connection with the making of flywhisks are the jackal (*koro*, *Canis mesomelas*) and the Cape fox (*!gwiiten*, *Vulpes caama*), whose tails are considered 'ugly'. Not so that of the bat-eared fox (*||wa*, *Otocyon megalotis*), which has a 'flowing tail'. The handle of the whisk was made of the twig of a driedoorn (*!nabba*, *Rhigozum trichotomum*), a bush very abundant in the part of the Karoo where the |xam lived.

|han̩≠kass'o does not make any reference to the more quotidian uses of the *!nabbe*, with which Lloyd very likely was familiar, but the story that motivated his description of the flywhisk provides some tantalising snippets of information about the other purposes the object may have served in addition to 'mopping up perspiration'. In this narrative, !gaunu-t saxau, the son of Mantis (|kaggen), is killed by a group of baboons who then start playing with the child's eye, throwing it at each other as if it were a ball (Bleek and Lloyd 1911: 16-37). Mantis dreams of this event and taking his quiver and other belongings goes to confront the murderers. As a ruse to snatch the eye from them, he asks to join their ball-game. Before he does that, however, Mantis 'took off his kaross, he put down the kaross, he, gasping, drew out the feather [sic] brush [*!nabbe*], which he had put into the bag, he shook out the brush' (Bleek and Lloyd 1911: 27).

From the context it is clear that Mantis' handling of the *!nabbe* is a magical act, which no doubt is responsible for the fact that, later in the narrative, the child's eye falls (of its own accord) into a bag that, significantly, is close to Mantis' quiver (Bleek and Lloyd 1911: 27). Before this happens, however, during a short moment in which the eye is in his hands, Mantis 'anointed the child's eye with (the perspiration of) his armpits' (Bleek and Lloyd 1911: 27, brackets in the original). After being severely beaten by the furious baboons (who demand that he return the 'ball' to them), Mantis grows feathers and flies away. He reaches the water-hole and plunges into it, thus recovering from his wounds. He then places the eye into the water, ordering it 'to grow out, that thou mayest become like that which thou hast been' (Bleek and Lloyd 1911: 31). After a gradual process, the eye becomes the child again, but the child is afraid of its father. Mantis then 'anointed the child with his scent' (Bleek and Lloyd 1911: 35), after which !gaunu-t saxau finally recognised him.

Here, as in other |xam narratives, perspiration appears as a powerful substance with healing properties. This belief has also been documented in the Kalahari. According to Lorna Marshall (1999: 59), the Nyae Nyae !kung think that the healing energy (*n|um*) that is harnessed during the dance enters the healers' 'hair and sweat'. As we will see, perspiration is key to understanding the presence of the flywhisks in the Karoo engravings, but before going into that I would like to comment briefly on another narrative in which flywhisks are mentioned.

The story was also told by |han̩≠kass'o and belongs to a short cycle of three narratives (Bleek 1924: 58–66) that have as their main character the *!hennixa*, a creature described as 'longnosed mouse', but which, thanks to the descriptions given in the records, we can confidently identify as an elephant-shrew of the genus *Macroscelides*, probably *Macroscelides proboscideus*, the round-eared elephant shrew or sengi, or perhaps the very similar new species identified in 2007 by Hanneline Smit in the Calvinia, Beaufort West and Williston areas (Béga 2007). In their mythological dimension, the sengis are described as being 'foolish people' (Bleek 1924: 58) and 'not strong' (65), although it is clear that within the community they are respected and loved. As we will see, they are also under the protection of |kaggen.

In the story 'The Lizard, the Mice and the Mantis' (Bleek 1924: 60–64), told by |han̩≠kass'o in August 1879, the agama lizard is sitting on top of a *!nabba* (driedoorn). From there, with the complicity of his daughter, he calls, one at a time, several sengi who are hunting springbok and tricks them into drinking from a 'decayed water-bag' (Bleek 1924: 63). Then he knocks them down, puts them inside a hole and steals their prey. This goes on for quite some time until Mantis warns the Stripped Mouse (*||khau*, *Mus pumillio*) in a dream. The Stripped Mouse comes to the rescue and beats the Agama at his own game, refusing the rotten water he is offered and knocking down the lizard. The sengis then come about and emerge from the hole saying "'I am here, I am here!" and they lifted up their brushes' (Bleek 1924: 64). In the original |xam (L.VIII.31: 8731'), the term translated as 'brushes' is *!ne!neten*, which appears in the dictionary as *!nai(t)!naiten* (Bleek 1956: 473) and is the plural of *!nabba*.

Unfortunately, this story was not translated by Lloyd with the help of the storyteller, as she did in most cases. Otherwise, she would perhaps have asked |han̩≠kass'o why the sengis emerge from their captivity waving flywhisks, a detail that appears to be of some importance. They do this also in another of the three narratives in which they feature when, as here, they 'come to life again' after their enemies, the Beetles, have been defeated by the Stripped Mouse (Bleek 1924: 66). In this case, the manuscript has a gloss by |han̩≠kass'o in which he explains that 'people

say that the brushes of people of the Early Race are of grass, a grass which resembles brushes' (L.VIII.18: 7550').

Returning to the story of the sengis and the Agama, as Janette Deacon has shown (Deacon and Foster 2005: 134-135; see also Rathbun 2008), sengis are present in the rock art of the !xam homeland, most prominently in several engravings at the main site of Springbok-oog, in one of which they are shown in connection with flywhisks (Fig. 1).

Deacon describes these images as follows: '[T]he creatures combine the physical characteristics of huge elephants and tiny elephant shrews' (Deacon and Foster 2005: 135). Close to them, on the right, are a group of human figures and an ostrich. One of the four human figures holds a flywhisk. The human figure on the left is very close to a sengi, which, in turn, appears to be holding a flywhisk in its 'trunk'. However, on close examination, it is clear that the object is being held by both the human figure (which has its arms raised in an 'praying' position) and the sengi (Fig. 2). The human figure has another flywhisk in the other hand. As Deacon says, the images, part of a set engraved on several boulders that stand in close proximity, 'illustrate a spirit-world experience that is both unique and ambiguous' (Deacon and Foster 2005: 135).

!han̄kass'o's narratives about the tribulations of the Early Race sengis help us to understand at least in part the nature of this experience. I argue that in both cases the wielding of flywhisks, because of the symbolism of this object – see below – identifies the sengis as *!giten* (singular *!gixa*), healers, who are possibly connected with rainmaking. The mention in one of the stories of a 'decayed water-bag' suggests that water plays a role in the narrative. This is reinforced by the fact that the adversary of the sengis in this story is none other than the Agama. Although Janette Deacon (1988: 134) has linked this lizard with rainmaking, its mythical persona as a mischievous and pathetic trickster whose pranks always backfire is not consistent with this status of a beneficent rainmaker. A case in point would be the story summarised above.

In a testimony that Deacon also cites, !han̄kass'o explained that the !xam people threw stones at the agama lizard when it was seen sitting up on a 'thorn tree' (actually a driedoorn bush, *!nabba*) because they thought that when it behaved like this the creature was preventing rain to fall (Bleek 2005: 143). Again, this belief about the real lizard is not consistent with its alleged role as rainmaker. As said above, the Agama of the myth is also sitting on top of a driedoorn, very likely for the same purpose of stopping the rain. In the light of this, the flywhisk-wielding sengis are more likely to be the rainmakers here, even if this is not explicitly stated. It is perhaps not a coincidence that the Strandberg hills, which the !xam saw as the

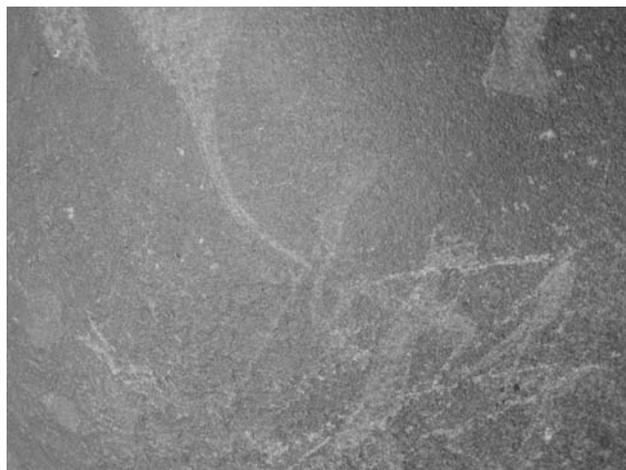


Fig. 2: Detail of the engraved boulder shown in Fig. 1. The flywhisk at the centre is held both by the sengi and the human figure.

petrified body of the mythical Agama (Bleek and Lloyd 1911: 215–217), are perfectly visible from the place where the sengis have been engraved at Springbok-oog. Perhaps they represent the forces the !xam rainmakers, who used the site and some of whom perhaps 'owned' sengis, tried to counteract. As I will argue in more detail elsewhere, we have here a unique juxtaposition of landscape, rock art and narrative in which the three appear to be linked together. It is relevant to point out that in the mid-1870s, !han̄kass'o resided close to modern Vanwyksvlei, in the area where Springbokooog lies (Bank 2006: 301).

All this begs the questions, why is the flywhisk part of the paraphernalia of the healer? And why is this object depicted in the rock art? Its use, documented by travellers since Vasco da Gama, 'to wipe the sweat from their face in hot weather' (as missionary John Campbell succinctly put it [1974 (1815): 139]) gives us the key. In the story of Mantis and the baboons, bag, quiver and flywhisk are closely associated with sweat and healing. The three objects are often seen in close proximity in rock paintings (Vinnicombe 1976: 185, 188, 193, 302; Lewis-Williams and Dowson 1989: 43, 73, 89). This can be seen also in some of the engravings in the dry Karoo. In the famous image of an elephant surrounded by human figures at Springbok-oog's main site, the dominant object, which people carry both in their hands and in quivers, are flywhisks (see Deacon and Foster 2005: 133 for a detailed tracing). As instruments used to remove sweat, a healing substance, flywhisks are directly connected with all ritual activities, including the healing dance, in which perspiration is generated and used for curative purposes.

References

- Bank, A. 2006. *Bushmen in a Victorian World: The remarkable story of the Bleek–Lloyd Collection of Bushman Folklore*. Cape Town: Double Storey.
- Béga, S. 2007. Big discovery of tiny new species. *Weekend Argus*, 29 September.

- Bleek, DF. 1924. *The Mantis and His Friends*. Cape Town: T Maskew Miller.
- Bleek, DF. 1956. *A Bushman Dictionary*. New Haven: American Oriental Society.
- Bleek, DF. 2005. *Customs and Beliefs of the !Xam Bushmen*, edited by J Hollmann. Johannesburg: Wits University Press.
- Bleek, WHI & Lloyd, LC. 1911. *Specimens of Bushman Folklore*. London: George Allen & Co.
- Campbell, J. 1974 [1815]. *Travels in South Africa*. Cape Town: Struik.
- Deacon, J. 1989. The power of place in understanding San rock engravings. *World Archaeology* 20, 129–140.
- Deacon, J & Foster, C. 2005. *My Heart Stands in the Hill*. Cape Town: Struik.
- Eastwood, E & C. 2006. *Capturing the Spoor: An exploration of southern African rock art*. Cape Town: David Phillip.
- Lewis-Williams, JD. 1981. *Believing and Seeing: Symbolic meaning in southern San rock paintings*. London: Academic Press.
- Lewis-Williams, JD. 1990. *Discovering Southern African Rock Art*. Cape Town: David Phillip.
- Lewis-Williams, JD & Dowson, T. 1989. *Images of Power: Understanding Bushman rock art*. Cape Town: Southern.
- Marshall, L. 1999. *Nyae Nyae !Kung Beliefs and Rites*. Cambridge MA: Peabody Museum Monographs.
- Rathburn, GB. 2008. Tales of sengi tails. *Afrotherian Conservation* 6, 8–10.
- Vinnicombe, P. 1976. *People of the Eland*. Durban: University of Natal Press.

ARCHAEOLOGY IN BRIEF

Lost Roman outpost found in southern Jordan.

New details about an ancient Roman fort in southern Jordan have been uncovered on the 'Ayn Gharandal archaeological site, including a monumental inscription. In 2012 the team uncovered the collapsed gate of the fort, including a large Latin inscription with traces of red paint. The inscribed block was decorated with laurel branches and a wreath, common symbols of victory in Roman art. The inscription says the fort was dedicated to four co-ruling Roman emperors: Diocletian, Maximian, Galerius and Constantius I, a group otherwise known as the Tetrarchs, who ruled between 293 and 305 AD. The inscription also reveals that the infantry unit stationed at the fort was the Second Cohort of Galatians. Ancient sources place the unit at a site called Arieldela, whose location was previously unknown. Roman military documents suggest that the Cohort II Galatarum was originally brought to Israel to help suppress the Jewish Bar Kokhba Revolt of the 2nd century. The inscription indicates that this garrison was subsequently transferred to the outer frontier of the empire in what is now modern Jordan.

Past Horizons, 23/08/2013

THE CAPE GALLERY



The Cape Gallery seeks to expose you to Fine Art rooted in an African tradition that is both eclectic and diverse. We rotate our exhibitions monthly, touching your imagination with the unique cultural stamp that is our continent.

60 Church Street Cape Town
Gallery Hours:

Mon - Fri: 09h30 - 17h00

Sat: 10h00 - 14h00

Tel: +27 21 423 5309

Fax: +27 21 424 9063

E-mail: cgallery@mweb.co.za

Web: www.capegallery.co.za

American Express, MasterCard, Visa and Diners cards are accepted. Reliable arrangements can be made to freight purchases to foreign destinations.



Artist: **Peter Midlane**

Title: **The Tokolosh & Broker 5/20**

Etching: 40 x 44 cm

Peter Midlane was born in 1954 in East London. He was awarded his Bachelor of Fine Arts degree with distinction in painting in 1977 through Rhodes University. Working in his preferred media of etching, mixed media and oil, Peter Midlane has successfully exhibited in solo and group exhibitions on numerous occasions, expanding on themes of human intervention on the land, issues of land ownership and exploitation, as well as regional history and myth.

The Cape Gallery deals in fine art work by SA artists and stocks a selection of paintings depicting South African rock art.

LEGGLEKKEN – FROM TRADITION TO DISPOSSESSION

A short history of the lay farms of the Roggeveld Karoo

Nigel Amschwand

It is beyond doubt that the earliest colonial Trekboer learnt transhumance from the Khoikhoi. This is particularly true of the Koue Bokkeveld and Roggeveld where the severe winters made moving to a more hospitable environment a necessity. Elsewhere, pastoralists of all races followed the grazing. For instance, stock farmers in the Onder-Bokkeveld moved from their home farms down to the Knersvlakte in winter and up into Bushmanland after the summer rains.

Farmers from the Koue Bokkeveld (to the west) and Roggeveld (to the east) moved down into the Tanqua and Ceres Karoo, as well as the Klein Roggeveld from about April to September. The terms Tanqua and Ceres are relatively modern, with Ceres only being established in 1854. The terms denote a northerly and southerly division of the area. In the 18th and 19th centuries, the area was described with a vertical division into the Bokkeveld Karoo and the Roggeveld Karoo.

The elevation of the Karoo averages around 500 m whereas peaks in the Roggeveld are over three times as high. This change in elevation brings about the change in climatic conditions. While the Roggeveld escarpment experiences heavy snowfalls in July, the minimum temperatures below the escarpment average about 5°C. The winter grazing areas located here, called *legplekken* or *legplaats* (lay places), were occupied by Trekboere, who held their home farms from the Dutch East India Company as loan places, subject to an annual payment of 24 Rix dollars. It became traditional for each farmer to return year after year to the same place in the Karoo during the winter months. After the British occupation of the Cape it became the norm for the names of the *legplekken* to be added to that of the main farms in the quit-rent registers. For instance, in the register for Worcester¹ the farms of Christian Korf were described as *'de Keerom gelegen in die middleroggeveld aan die Vischrivier. Hierbygevegd, tot een legplaat de Houthoek aan die Caroo'*.

In 1813, the current governor of the Cape, Sir John Francis Craddock, decided to change the policy of land alienation. It was thought that the mostly Dutch inhabitants would prefer a more secure form of land tenure. Instead of loan-farm grants having to be renewed annually, a form of perpetual quit-rent was instituted. This was to be as secure as freehold tenure. The rent was payable each year in advance and



Fig. 1: Area of the Tanqua and Ceres Karoo, outlined red, and Klein Roggeveld, outlined yellow (courtesy of Google Earth)

owners had to have the land surveyed.

Many farmers in the area requested that their *legplekken* be converted to quit-rent farms as well. However, because of the inefficiency of the Land Board, very few applications were acted upon. In 1829, a newly appointed surveyor-general to the Land Board discovered more than 4 500 claims dated as far back as 1813. For reasons not presently understood, the practice of adding the *legplekken* to the main farm in the quit-rent register was discontinued in 1828. However, farmers continued occupying their *legplekken* during the winter months as before.

A new Imperial land policy was introduced in 1843 under which all Crown Land was to be disposed of at public auction at a minimum price of two shillings per acre. Roggeveld and Bokkeveld farmers were quick to respond. In 1844, in a memorial² to John Montagu, the secretary to the governor, they asked his advice on their rights to their *legpleks* in the Karoo. Some claimed that their rights resulted from an order of the Landdrost and Heemraaden, but could not provide written evidence. Others claimed land rights by virtue of immemorial custom and held that the *legpleks* could not be alienated. Yet others claimed that the whole of the Karoo was unappropriated Crown Land and that no individual could lay claim to any particular

1 CA 1/Wor 15/6, 176. Quitrent Register 18071836.

2 CA CO 4023.132. Memorials Received. PJ de Vos stating the anxiety of Roggeveld farmers to obtain more certain tenure to 'Legpleks'.

Nigel Amschwand researches and writes about the history of the Northern Cape. nigel.amschwand@gea.com.

part of it. They wanted to know how they could obtain more secure tenure of their *legpleks*. If it was only by purchase, then the minimum price of two shillings an acre was far too much. Even 6d an acre would be too high, especially as the land was only usable for half the year.

Upon consideration, the Surveyor-General's Office suggested that if the farmers could prove that they had written a memorial prior to 1832 claiming a quit-rent grant for the land, they would be dealt with accordingly. Upon payment of a deposit for the survey, they would be granted a farm not exceeding 5 000 morgen. The *Government Gazette* of 17 May 1832 announced that henceforth all Crown Land was to be disposed of by public auction, but this regulation was not enforced until the introduction of the Imperial Land Policy in 1843. John Montagu disagreed with the Surveyor General's Office, stating that the *legplekken* were Crown Land and had to continue so until sold by public auction. However, selling land by public auction was not a proposition as the British Government had stipulated a price of two shillings per acre.

To illustrate this, on 12 October 1847, Jacobus Gideon Louw, a resident at Kranskloof in the Onder-Bokkeveld, requested to lease the farm Brandhoek adjoining his *legplek*, Buffelskopfontein.³ The Civil Commissioner's Office in Clanwilliam suggested that the land be surveyed and divided between the three other farms that surround it. However, the Surveyor General's Office held that it should be surveyed and divided into four sections and sold by public auction. First, however, the Civil Commissioner should determine if it would fetch the minimum upset price. The answer was obviously a 'no', as on 3 December 1847 the surveyor-general said that the land should be surveyed at government expense and rented out in a similar manner as before. As a matter of interest, although Buffelskopfontein and the other farms were surveyed in 1823, the transfers did not take place until 1837. Brandhoek was surveyed in 1853 and then purchased by JG Louw.

In 1858 the colonial secretary, Rawson W Rawson, wrote to the civil commissioner of Worcester, JJ le Sueur, stating that the governor had asked why in the division of Worcester there had been no such rapid progress in the surveying of Crown Land and putting it up for sale as there had been in the neighbouring Division of Beaufort.⁴ In his reply, Le Sueur gave the history of the *legplekken* as detailed above. He considered that the *legplekken* should be surveyed and granted to the proprietors of the quit-rent places to which they belonged or were attached. In his opinion the *legplekken* were part of the loan farms that the proprietors had converted into quit-rent farms, so they

3 CA CO 4033.191. Memorial. Jacobus Gideon Louw requesting Buffelskopfontein as a legplek.

4 CA CCP 3/1/1/3 A18-'59. Papers relative to the Disposal of certain Vacant Crown Lands in the Division of Worcester.

had a legal right to the occupancy of the *legplekken* and this, having in a great many instances been conceded, had become prescriptive. He also referred to the memorial of 1844 in which his predecessor had suggested the same course of action.

Charles Bell, surveyor-general, in his report said that this important question as to the disposal of 'probably not less than two million acres' should be agreed to by parliament. He disagreed with the civil commissioner that the *legplekken* were proscribed, but considered that provided the grantees undertook to build reservoirs and permanent habitations the vague rights so long asserted should be dealt with in a liberal manner. He suggested that licences should be issued for the current year. A list of 130 *legplekken* in the Roggeveld Karoo was attached to these papers.

This correspondence only covered the District of Worcester; the sub-district of Tulbagh, which was responsible for the western part of the region, would have been similar. Further complications were that with the changes of the districts, some farmers in the Roggeveld had *legplekken* that were still in the District of Tulbagh and requested that their main farms be transferred back there.⁵ It can be seen from the *Opgaafrolle* (tax records) that after the seat of the magistrate was changed from Tulbagh to Worcester in 1823, with the former becoming a sub-district, some of the outlying areas were gradually transferred, including the Middle and Klein Roggevelds. The Onder Roggeveld remained under the administration of Tulbagh until the formation of the Calvinia district.

In 1860, a circular was sent out to the chairmen of the Divisional Councils to ask if *trekvelden* in their divisions could be sold.⁶ Tulbagh said that they did not consider *trekvelden* to be the same as the *legplaats* of the Karoo and recommended that they be sold. Worcester said the same, although this was in contradiction to the statement by Le Sueur. Calvinia said that matters must remain as they were as otherwise it would lead to the ruination of the cattle farmers. A select committee meeting later that year⁷ decided that they saw no reason for excluding the *trekvelden* in the north-west of the colony from the general regulations for the sale of Crown Lands. It seems that the Bokkeveld and Roggeveld Karoo had a reprieve for the time being.

The government was not very active in having the farms surveyed. In the various districts, surveys were carried out, starting in –

5 CA CO 4089.143. Memorial. JH Munnik for the inhabitants of the Roggeveld, requesting that their farms be annexed to the division of Tulbagh.

6 CA CCP1/2/1/8 G30-'60. Correspondence with Divisional Councils of certain divisions in which *trekvelden* exist on the subject of future disposal of these lands.

7 CA CCP 1/2/1/8 A46-'60. Report of the Select Committee appointed by the House of Assembly on the 15th May 1860 on the correspondence and papers relating to the future appropriation of the *Trekvelden* in the North-West Divisions of the Colony.

ARCHAEOLOGY IN BRIEF

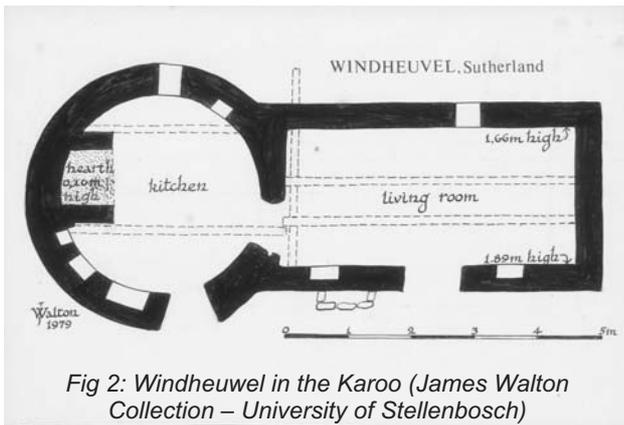


Fig 2: Windheuwel in the Karoo (James Walton Collection – University of Stellenbosch)

Calvinia 1853
Sutherland 1871
Ceres 1870
Laingsburg 1862

The surveys in the latter district were very haphazard and continued until 1886. Sales were also slow. A section of the 1890 district map of Sutherland shows that of the 47 farms in the Klein Roggeveld more than 60 per cent were still being leased.

Following the advent of self-government at the Cape in 1853, the fixed minimum upset price of two shillings per acre was removed. However, it seems that the government was quite content to carry on leasing the ground until someone lodged a request to buy it. Today, many of the farms in the Klein Roggeveld are occupied all year round. Transhumance is still practised by farmers in the Middle and Onder-Roggeveld, who move their flocks down into the Ceres and Tanqua Karoos during the coldest months.

Farmers talk of camping in the Karoo and certainly their living standards are much reduced during their sojourn there. In the past it must have been the same, with some farmers living in their wagons whilst others built rudimentary dwellings, such as the one at Windheuwel, drawn by James Walton in 1979. The farmer who erected the house shown in Figs 2 and 3 is unknown. However, 'De Windheuwel in de Carro' was a *legplaat* attached to the farm Jakkelsvalley in the Middle Roggeveld owned by a Mr Lubbe.⁸



Fig 3: Windheuwel in 1998

8 CA 1/Wor 15/6 p.14

Chinese pottery reveals 5 000-yr-old beer brew.

Residue on pottery unearthed at an archaeological site at Mijiaya, near a tributary of the Wei River in northern China, has revealed traces of a 5 000-year-old beer recipe. The site offers the earliest evidence of beer-making in China and shows that people of the era had already mastered an 'advanced beer brewing technique', said the study in the *Proceedings of the National Academy of Sciences*. Yellowish residue gleaned from pottery funnels and wide-mouthed pots revealed that the ingredients – broomcorn millet, barley, a chewy grain known as Job's tears, and tubers – had been fermented together. 'The discovery of barley is a surprise', lead author Jiajing Wang of Stanford University said. This is the earliest known sign of barley in Chinese archeological materials. The research suggests that barley made its way to China from the west about 1 000 years earlier than previously believed. *Agence France-Presse, 23/05/16*

Lost city discovered in Honduran jungle.

Urban remains have been found in the jungles of Honduras of what is believed to be a vanished civilisation. The archaeological expedition was on the trail of a legendary 'White City' or 'City of the Monkey God' in the Mosquitia region. Aerial light detection scanning uncovered what appeared to be man-made structures below the rainforest. The expedition found earth works, including an earthen pyramid, as well as a collection of stone sculptures that could have been burial offerings. Writer Douglas Preston said that in contrast to the nearby Maya, this vanished culture had scarcely been studied and remained virtually unknown. Archaeologists did not even have a name for it. Archaeologists no longer believed in the existence of a single 'White City', he said, instead believing there had been an entire civilization with many cities. Archaeologist Oscar Neil Cruz from the Honduran Institute of Anthropology and History estimated the structures dated from AD 1000 to 1400. *National Geographic, 05/03/2015*

Evidence of early cinnamon trade.

Researchers analysing the contents of 27 flasks from five archaeological sites in Israel dating back around 3 000 years have found that 10 contain cinnamaldehyde, the compound that gives cinnamon its flavour. At this time the closest area to Israel cinnamon was found was southern India and Sri Lanka and the discovery raises the possibility that long-range spice trade may have taken place that long ago. The flasks were made locally in northern coastal Israel, which back then was part of Phoenicia. They appear to have been designed to hold precious contents, featuring a narrow opening with thick walls. Flasks like these have been found in special places such as treasuries and temple storerooms. *LiveScience, 20/08/2013*

ARCHSOC'S PRESIDENT AND VICE-PRESIDENT FOR 2016–2018

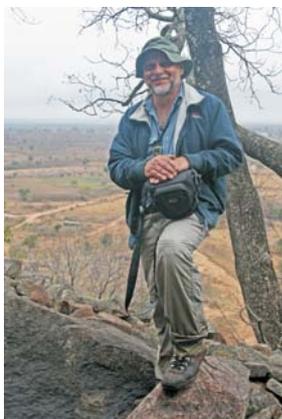
At its meeting on 8 June 2016, the Council of the South African Archaeological Society elected a new President and Vice-President for the period 1 July 2016 to 30 June 2018 from a shortlist of nominees submitted by the Northern, Western Cape and KwaZulu-Natal branches.

Jan Boeyens: President

The new president is Professor Jan Boeyens, who heads the Archaeology Division of the Department of Anthropology and Archaeology at the University of South Africa. Jan has a Masters in History and a DPhil in Archaeology from the University of Pretoria. His long association with archaeology at UNISA began in 1977. He worked his way up to Associate Professor in 2005 and full professor in 2011. During this period there have been major advances in the quality and scope of UNISA degrees in archaeology, including the addition of a third undergraduate year, Honours and Masters courses. Jan has made very significant contributions to these developments.

His research interests cover Iron Age archaeology, historical archaeology, Tswana towns, heritage conservation, Transvaal history and oral traditions. His combination of archaeological and historical skills has been put to good use over the years in a number of important field-research projects spanning the last few centuries in the northern regions of South Africa. Amongst many others, these include his definitive work on correctly identifying and elucidating the Hurutshe capital of Kaditshwene and the frontier battle site of Magoro Hills. A consistent theme of his research has been the history and archaeology of conflict between the former Zuid-Afrikaansche Republiek and black farming communities.

In addition to field research, Jan Boeyens has published on topics such as aspects of materials science, cultural resources management, the spread of maize cultivation and the symbolic significance of the rhinoceros in African societies. His publications are recog-



ArchSoc President 2016–2018 Prof. Jan Boeyens (left) and Vice-President Dr Graham Avery

nisable by their high level of scholarship and meticulous attention to detail, which has established them as solid building blocks in the later archaeology/early history of the region. Jan served on the committee of the Northern Branch of the SA Archaeological Society in the 1990s and has been branch Patron since 2005.

Dr Graham Avery: Vice-President

ArchSoc's new Vice-President for the next two years is Dr Graham Avery, who joined the South African Archaeological Society as a 12-year-old schoolboy in East London and served as Western Cape Branch Secretary and Functions Organiser in the 1970s. After majoring in archaeology at the University of Cape Town (UCT), he worked in Iziko South African Museum's Archaeology Department for over 40 years. He became head of the department and later transferred his interest to Cenozoic Studies in the Natural History Collections Department at the museum, where he fulfilled the roles of curator, scientist and mentor of new staff.

Graham's Masters dissertation at UCT was on *Open coastal shell middens between Cape Agulhas and Kleinmond*, and his PhD, also at UCT, was on *Birds, palaeoenvironments and palaeoecology at Eland's Bay Cave, Die Kelders Cave and Nelson Bay Cave*. As an archaeozoologist his research focuses on the palaeoecology of humans and animals of the past, particularly birds, within the framework of changing terrestrial and coastal environments. This includes the study of sea levels during the Pleistocene and Holocene, primarily in the area between Saldanha Bay and Cape Agulhas, by studying coastal shell middens, tidal fish traps and fossil occurrences at Spreeuwalle, Elandsfontein and Duinefontein 2.

Over 29 years he conducted monthly surveys for beached seabirds and seals, using the results to elucidate Middle and Later Stone Age exploitation of seabirds. He has identified and assembled comparative samples of large raptor, jackal and hyena prey for biologists and taphonomic assessments that can improve our understanding of past human and predator behaviour. His work has taken him to Zambia, Kenya and France, and he has co-directed excavations at Die Kelders Cave 1, Duinefontein 2 and Ysterfontein 1 with Dr Richard Klein and his teams. He has been involved in developing exhibits on South African archaeology and rock art, Robben Island, Darwin in the Cape and *Australopithecus sediba*, as well as public outreach at Die Kelders Cave (Klipgat). He is currently working on an outreach project at Ysterfontein 1.

In retirement he continues his palaeoecological research on birds and mammals from archaeological, palaeontological and predator accumulations and does Palaeontological Impact Assessments in Quaternary contexts of the Western Cape.

ON THE TRAIL OF QING AND ORPEN

Jill Weintroub and John Wright

The cross-disciplinary exhibition *On the Trail of Qing and Orpen: From the Colonial Era to the Present*, opened at the Standard Bank Gallery in Johannesburg at the end of January 2016. The exhibition examines the history of a well-known article with the title 'A glimpse into the mythology of the Maluti Bushmen,' published by Cape colonial official Joseph Orpen in the *Cape Monthly Magazine* in 1874. The article was based on stories and cultural and historical information recorded by Orpen from a "bushman" guide named Qing' in the Maloti mountains (in today's Lesotho) the previous year.

Orpen's article is the only text we have that records comments on the meaning of particular rock paintings as given by an 'insider' who may have had first-hand knowledge of the practice. Since the 1970s, the article has become foundational to the interpretation of southern African rock art. While archaeologists and rock art scholars have drawn extensively on Orpen's article to support theories about rock art interpretation, the exhibition aims to complicate the relationship between Orpen's text and its contribution to what rock art might mean. It does this by placing not only the text and its creators in the context of their times, but also by examining the longer visual and intellectual histories into which these ideas and bodies of thought fall.



A full-size reproduction of the fold-out of Orpen's four colour sketches, the title pages of the journal and the article as these appeared in the Cape Monthly Magazine of 1874 (photo: Justine Wintjes)

The exhibition has been curated by Justine Wintjes, lecturer in History of Art at the University of the Witwatersrand, assisted by historians Jill Weintroub and John Wright. It interrogates the encounter between



An array of artworks conveying 19th century artists' impressions of rock art viewed through a display case of digging stones from the University of the Witwatersrand's ethnological collections greet one on entering the exhibition (photo: Jill Weintroub)

Qing and Orpen from many angles, featuring reproductions of Orpen's original manuscript with reproductions of comments on his text made by the Cape Town-based philologist, Dr Wilhelm Bleek, alongside nineteenth-century artworks and contemporary landscape photography. Also on display are examples of original rock paintings and engravings, objects from the archaeological and cultural collections of a number of South African museums and galleries, and books from university libraries and private collections.

The opening of the exhibition took place against the background of a public storm over racist comments published on Facebook by Penny Sparrow, an estate agent in KwaZulu-Natal, and similarly controversial statements on Twitter by Chris Hart, chief economist of Standard Bank at the time. The exhibition curators were in the throes of finalising wall texts and displays when Hart tendered his resignation. The fall-out almost derailed the exhibition. The acrimonious public exchanges about racism and racist utterances caused some of the staff at Standard Bank to take fright at certain perjorative terms that appeared in Orpen's and Bleek's manuscripts and published texts. In the 1870s, when Orpen and Bleek wrote their texts, such language was part of everyday usage in public discourse, and particularly in the scholarly lexicon of philologists, ethnologists, early archaeologists and proto-anthropologists. Today, though, the use of such terms is rightly regarded as offensive.

The prospect of censorship loomed and the curators worked on labels that would give reasons for the redacting or blurring of the offending words in the full-

Dr Jill Weintroub and Professor John Wright are affiliated to the Rock Art Research Institute, University of the Witwatersrand. john@rockart.wits.ac.za; jill.weintroub@gmail.com.

sized reproductions of both manuscripts, which were key to the visual narrative of the exhibition. Fortunately, in the end, our texts were displayed without annotation or excision. But the experience provided a clear lesson on how current affairs as reflected in the social and political discourse of the day can quite suddenly impact on an exhibition strategy planned months and even years earlier, forcing us, as scholars, academics and curators, to take the everyday and the real world into consideration, and to recalibrate our thinking in a register that we had not previously considered.



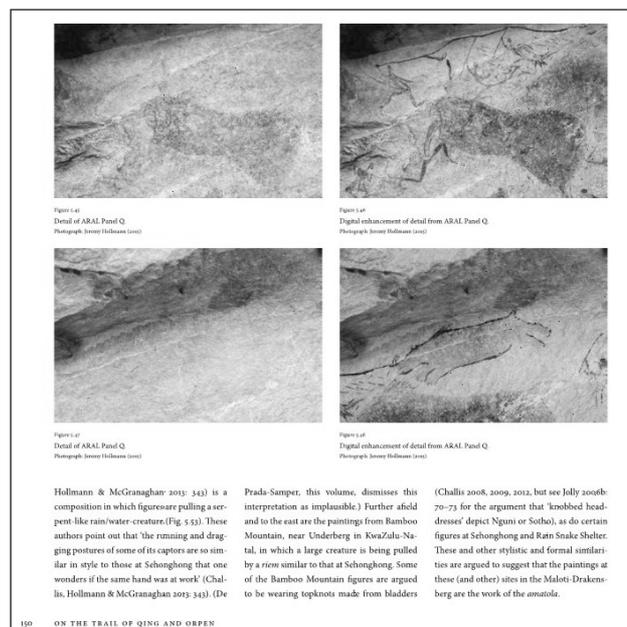
A slab of painted rock enters into conversation with a contemporary landscape photograph featuring Melikane shelter in the Maloti (photo: Justine Wintjes)

The Qing-Orpen Project (QOP) had provoked a certain amount of controversy from inception. Its initial announcement in this publication (Wright and De Prada-Samper 2013), admittedly bullish in tone, drew responses from leading rock art scholars (Challis et al. 2013, 8) who pointed to their recent annotated republication of the text (McGranaghan et al. 2013). They drew attention to the ‘considerable amount of research’ they had directed at Orpen’s text while addressing its context and role in ‘developing an understanding of San rock art and mythology’ in the decades since its first appearance in 1874 (Challis et al. 2013, 8; see also Weintraub 2016, 182–183). Another article in *The Digging Stick* (Mitchell 2013) pointed to the decades of work done by archaeologists in the region. Such research revealed a record of considerable cultural change stretching back ‘two millennia or so preceding Orpen’s encounter with Qing’ (Mitchell 2013: 19).

On the Trail of Qing and Orpen was initially conceived as a book project (De Prada-Samper et al. 2016) rather than an exhibition, as is more conventionally the case with exhibitions and catalogue publications. Once the opportunity of the exhibition materialised, the two projects developed simultaneously, with each informing the other. Read together, they present Orpen’s text as evidence of one aspect of the history of bushmen in the Maloti, rather than a primary source

of ethnographic knowledge of bushman ‘culture’, or of ‘bushman oral tradition’ drawn from the stable and homogenous figure of the ‘native’ informant. (For a critique of the historical representation of the ‘native’ in social-science research from a South African perspective, see Leroke 1994.) The objective was to dissect the idea of bushmen as ‘ancient’ people with ‘extinct’ languages and ‘mysterious’ paintings and folklore that needed to be deciphered, and instead to portray them as social actors participating in politics and utilising forms of creative narrative and artistic expression to do so.

In the book, the chapters approach encounter, text, landscapes and paintings from different disciplinary points of view. While some chapters focus on folkloristic, archaeological and linguistic analysis (De Prada-Samper 2016, Hollmann 2016, Du Plessis 2016), others treat the text and associated illustrations as an archival source (Wright 2013: 6; Wintjes 2016), or, after Kopytoff (1986), as cultural objects with distinctive biographies (Weintraub 2016: 182–183).



Double page spread from On the Trail of Qing and Orpen (2016), displaying treatment of the Sehonghong rain-making group in the chapter by archaeologist Jeremy Hollmann (photo: Justine Wintjes)

The exhibition provides a unique opportunity to encounter the visual trajectory into which modern rock art research falls. It showcases some of the earliest visual representations of rock art, produced before its study became an international scholarly pursuit and rock art reproduction a scientific method. What were the visual codes and genealogies that informed the gaze of these early artists? How does the art resonate within the larger landscape in which it has been made? Was it created to be secret and remote? Or was it inspired by and made in response to dynamic

social experience and political activity? These are some of the questions that the curators hope will be raised by the displays.

The exhibition runs until 3 December 2016.

References

- Bleek, W. 1874. Remarks by Dr Bleek. *Cape Monthly Magazine* 9, 11–13.
- Challis, S, Lewis-Williams, D & McGranaghan, M. 2013. A glimpse into the minds of the Maloti-Drakensberg San. *The Digging Stick*, 30(2), 8–11.
- De Prada-Samper, J, Du Plessis, M, Hollman, J, Weintroub, J, Wintjes, J & Wright, J. 2016. *On the Trail of Qing and Orpen*. Johannesburg: Standard Bank.
- De Prada-Samper, J. 2016. A partial clue: The genesis and context of Qing and Orpen's conversations. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 29–101.
- Du Plessis, M. 2016. Notes on Qing's own language. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 103–121.
- Hollmann, J. 2016. A glimpse into the archaeology of the Qing-Orpen sites. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 123–157.
- Kopytoff, I. 1986. The cultural biography of things: Commoditisation as process. In: A Appadurai (ed.), *The Social Life of Things: Commodities in cultural perspective*. Cambridge: Cambridge University Press.
- Leroke, W. 1994. Koze kube nini? The violence of representation and the politics of social research in South Africa. Paper presented to the New Nation, New History Conference, University of the Witwatersrand, 13–15 July 1994.

- McGranaghan, M, Challis, S & Lewis-Williams, D. 2013. Joseph Millerd Orpen's 'A glimpse into the mythology of the Maluti bushmen': a contextual introduction and republished text. *Southern African Humanities* 25, 137–166.
- Mitchell, P. 2013. Contextualising Qing. *The Digging Stick*, 30(3), 19–21.
- Orpen, J. 1874. A glimpse into the mythology of the Maluti bushmen. *Cape Monthly Magazine* 9, 1–13.
- Weintroub, J. 2016. Text and context: Tracking the Qing-Orpen text through the twentieth century. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 181–201.
- Wintjes, J. 2016. Glimpses prior to Orpen: Pre-1874 texts and pictures about bushman rock painting. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 159–180.
- Wintjes, J. 2011. A pictorial genealogy: The rainmaking group from Sehonghong Shelter. *Southern African Humanities* 23, 17–54.
- Wright, J. 2016. Two lives in context: Qing and Orpen to 1874. In: De Prada-Samper et al., *On the Trail of Qing and Orpen*, Johannesburg: Standard Bank, 13–27.
- Wright, J & De Prada-Samper, J. 2013. Announcing the Qing and Orpen Project, *The Digging Stick*, 30(1), 5–8.

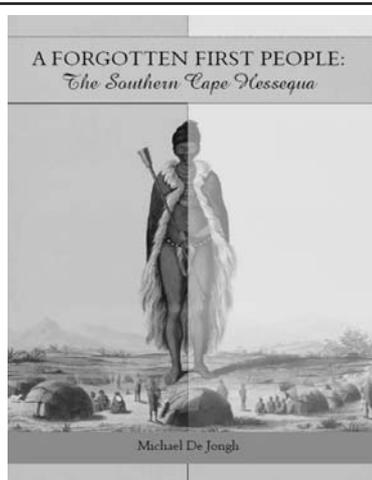
WORLD ARCHAEOLOGY

Indonesian shell has 'earliest human engraving'

Zig-zag patterns found on a fossilised shell in Indonesia may be the earliest engraving by a hominid. It is at least 430 000 years old, which would mean that it was made by *Homo erectus*. The oldest man-made markings previously found are about 130 000 years old. If confirmed, the findings may force a rethink of how human culture developed. Hundreds of fossilised freshwater mussel shells were excavated and collected in Java by Dutch scientist Eugene Dubois in the 1890s, then stored in boxes for years in the Dutch city of Leiden. In May 2007 Stephen Munro from Australian National University took photos of them as part of his research for his PhD. The engravings stood out very clearly on the digital photos. Research found that the engravings were made before fossilisation, when the mussel was fresh, between 430 000 and 540 000 years ago.

Munro said the discovery could confirm theories that *Homo erectus* had significant manual dexterity and greater cognitive abilities than previously thought. 'When we see this type of behaviour, whether it's art or symbolic expression, we reserve it for ourselves as something quite uniquely human,' he said. 'With this finding, we might say there are definitely differences between us and *Homo erectus*. But they might be more like us than we previously thought.' Other experts expressed scepticism about the find. John Shea from Stony Brook University in New York said that there was 'nothing like it around for hundreds of thousands of years, and thousands and thousands of miles. If this is symbolic behaviour by *Homo erectus* then it is basically the only evidence we have got for a species that lived for a million-and-a-half years on three continents.'

Nature 04/12/2014



The focus of *A Forgotten First People* is the Hessequa, who pastured their cattle along the south-east Cape coast long before the advent of Europeans and are better described as a 'Khoekhoe community'. Anthropologist Prof. Michael de Jongh's previous book, *Roots and Routes: The Karretjie People of the Great Karoo*, was listed for the Alan Paton prize for non-fiction and won the Hiddingh-Currie award for academic excellence and contribution to society.

A Forgotten First People is available at R250.00 from ArchFox Books, fox@boers.org.za.

HONORARY DOCTORATE AWARDED TO JANETTE DEACON

Janette Deacon, Honorary Secretary and mainstay of the South African Archaeological Society, has been highly honoured by the University of Cape Town. At the UCT graduation ceremony on 14 June she was awarded the degree of Doctor of Letters *honoris causa* in recognition of her work and scholarship that has facilitated new understandings of the indigenous past, helped shape legislation for the protection of the archaeological and visual heritage of the San, assisted in profiling South African archaeology and rock art research in a global context, and notably made a significant contribution to the Bleek and Lloyd Archive.

The full citation reads as follows:

Janette Deacon, the well-published and highly acclaimed archaeologist, graduated from UCT with a BA (1960), MA (1969) and PhD (1982). Throughout her career, as an academic and later as archaeologist at the National Monuments Council, she displayed exceptional scholarship and advocacy and it is in the intersection of these two that she has made a significant contribution.



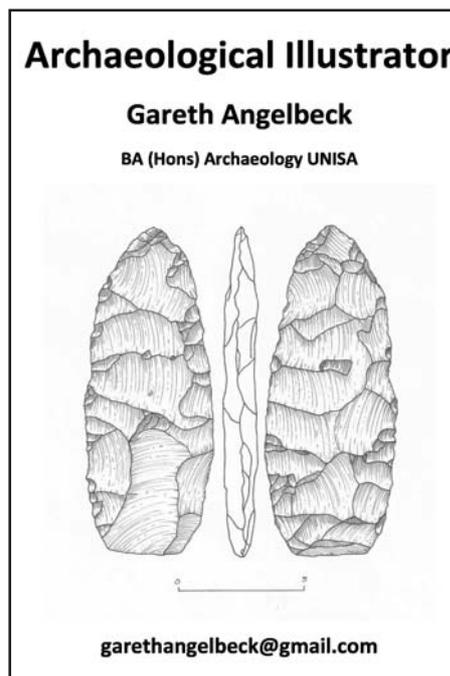
Dr Janette Deacon, together with Professors Simon Hall and Judy Sealy, on being awarded her doctorate on 14 June

Deacon's work contributed significantly to the Bleek and Lloyd Archive, achieving recognition by the United Nations as a site of the Memory of the World. Her scholarship in Stone Age archaeology in South Africa, rock art research and a whole host of other activities has largely been carried out at the intersection of scholarship and public life, and has helped to facilitate new understandings of the indigenous past, shape legislation for the protection of the archaeological and visual heritage of the San, and profile South African archaeology and rock art research in a global context. She has worked extensively with San descendants and in making the archive accessible to them. Her commitment to the

preservation of the rock art of the San – a vulnerable pre-colonial archive – includes a ten-year collaboration with the Getty Conservation Institute at World Heritage Sites in southern Africa, and a project that trains local people and amateur enthusiasts to record, document and clean rock art sites in the Cederberg.

Dr Deacon has been recognised for her contribution to archaeology and rock art research with a number of awards, including a UNESCO and World Heritage Convention medal in 2010 for her work with rock art internationally. From 1976 to 1993 she edited the premier South African archaeological journal, the *South African Archaeological Bulletin*, and played a major role in shaping its character. Amongst her extensive publications are seven books, including *Human Beginnings in South Africa*, co-authored with her late husband Professor HJ Deacon. This book remains an indispensable text for Africanists and for any course on African archaeology.

Editor's note: Dr Deacon joined the South African Archaeological Society as a student in 1959. She served as secretary of the Western Cape Branch committee in the early 1960s before relocating to Grahamstown. On returning to Cape Town, Janette was elected to the Council of the society in 1972. She accepted the position of Honorary Secretary of the society in 1997. Apart from editing the *South African Archaeological Bulletin* from 1976 to 1993, she also started a regular and less formal society *Newsletter* in the late 1970s. This subsequently became *The Digging Stick*. For all she has done for South African archaeology and the SA Archaeological Society, the honourable degree awarded to her is truly deserved.



TRAVELLING AT THE EDGE OF CHINA

Reinoud Boers

Every year, the Northern Branch of the South African Archaeological Society arranges a tour to an international site of major archaeological or related interest. Since the 1990s, destinations have included Mexico; China; northern Thailand, Myanmar, Cambodia and Vietnam; Pakistan and India; Tunisia and Malta; northern and eastern Ethiopia; southern Ethiopia; Mali; Peru and Bolivia; and Benin and Togo. In April/May last year, 24 ArchSoc members participated in a journey to the edge of China in the less-developed west of the country.

China is an incredible country – there are so many different things to see and in addition it has this long and fascinating history. After touring a large part of Sichuan province on a north-south axis, we flew to Xi'an in central China before flying back west to the province of Gansu, squashed between the Tibetan and Inner Mongolian plateaux. We travelled along the greatest extent of this region from east to west. The total distance covered was around 5 000 km.

In the west we were a long way off the normal foreign tourist routes and we were often, especially in Gansu, the only Westerners around, which heightens the sense of adventure. We were at times quite a curiosity and regularly had to have our pictures taken with the locals. We became so used to not having foreign travellers around us that when in Xi'an we were greeted by a breakfast room resonating to the sound of Australian twang, we were quite taken aback.

As is apparent when one looks towards Xueboading, at 5 558 m the highest peak of the Minshan mountains, western China is a torturous part of the world, geologically speaking. The India crustal plate has been moving north from the time the Gondwanaland supercontinent started to break up some 180 million years ago and collided with the Eurasian plate from about 55 million years ago, buckling the crust and forming the Tibetan thrust mountains. Even today the Indian plate is still moving north at 5 cm a year and pushing up the Himalayas by 4 mm a year. Earthquake activity in this region continues to be very high.

The aim of the tour was to visit a number of significant archaeological sites. A stunning start was Sanxindui in the upper reaches of the Yangtze River north of Chengdu. Sanxindui dates to the Shu Kingdom – AD 221 to 263 – which covered present-day Sichuan Province, Chongqing City, southern Shaanxi Province

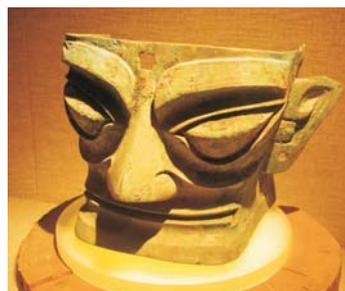
Reinoud Boers' career encompasses journalism, travel wholesaling and public relations. He has served on the committee of ArchSoc's Northern Branch for some 25 years and arranges its longer tours. He also operates ArchFox Books. fox@boers.org.za.



Western China is mountain land. At 5 558 m, Xueboading is the highest peak of the Minshan mountains.

and north-west Yunnan Province. The site's discovery in 1986 came as a great surprise since it brought to light a major and previously unknown culture. The finds unearthed were of such exquisite beauty and reflected such advanced bronze metalworking techniques that some Chinese archaeologists consider Sanxindui to be a more significant find than the Terracotta Warriors at Xi'an. Even after 30 years of excavation, archaeologists' understanding of this society is far from clear and there are many perplexing riddles.

The Sanxindui Museum houses a large array of the bronze artefacts unearthed. Foremost among these are masks, of which those with protruding pupils are the most distinctive. The pupils are probably an imitation of the eyes of Cancong, the legendary ancestor of the Shu. Eyes and ears are exaggerated to live up to the idol's apparent power of seeing and hearing over long distances. Artefacts also include bronze heads with masks of gold foil that were worshipped in the temples as symbols of the gods of heaven and earth, and of the ancestors, but at the same time they mirrored local political relations by representing political and religious leaders. Kings and shamans were integrated into a union to reflect the primitive



This Sanxindui mask measuring 138 cm wide is one of the largest unearthed

religious awareness of the people and the organisation of the ruling class.

Objects comprising both human and bird features are thought to have been divine beings in the imagination of the Shu, as well as symbols of the secular rulers. At the time of excavation, some figures still retained the red colour of cinnabar. A wide range of bird sculptures were also found. The majority seem to be accessories to and ornaments of other implements. They are exquisitely shaped and distinctive in gesture. Some are realistic in style while others are masterpieces of abstract art. Also on display are items that are considered to be ritual temple instruments. All these fantastic mythical objects provide a glimpse into the rich and colourful spiritual world of the Shu.

The other leading archaeological site of China is of course the Qing Empire site of Terracotta Warriors and Horses in Xi'an, an hour's flying time further east. Xi'an was the easiest way to get from Sichuan to Gansu, even though the provinces border each other and are linked by a torturous mountain road. The detour made it possible to spend a day looking at the Terracotta Warriors and Horses, and city walls and the Huaqing Palace complex of ancient Chang-An, starting point of the famous Silk Road or, rather, silk roads since there were more than one, the most significant other being the sea route via India to the Persian Gulf.

What a sight is this enormous army of almost life-size pottery sculptures fashioned, painted and buried at the behest of China's first emperor for his protection in the afterlife. Discovered by a farmer in 1974, in 2007 it was estimated that the excavations held more than 8 000 warriors, 130 chariots drawn by 520 horses, and 150 cavalry horses. As the king of the state of Qin from 246 to 221 BC, Qin Shi Huang conquered the other Warring States and united China in 221 BC, and then ruled as the first emperor of China until 210 BC.

Three pits are now open to the public, although other pits have been found, one of which contains terracotta birds and animals. From the time I last visited the site in 1999, Pit 1 has been extended and Pit 3, the so-called 'command centre', which contains sculptures of officers only, has been opened. Surprisingly, some terracotta pieces retain colour even though exposure to light has generally faded the exquisite colours. Further excavation has apparently been put on hold in the hope of discovering a technique that will prevent colour-fade. The same consideration applies to Qin's unexcavated mausoleum, a huge burial mound, laced with liquid mercury according to myth, 1,5 km distant.

For the next archaeological site we must jump to Gansu province. For many of us, the Gobi Desert with its section of the 7 000 km long Silk Road was a main attraction of the tour. We travelled through the Gobi for 13 hours on a comfortable overnight soft-sleeper train from Lanzhou, the capital of Gansu on the upper reaches of the Yellow River, to the oasis town of Dun-



Fig. 4: Terracotta Warriors and Horses in Xi'an: Pit 1

huang situated at the western end of the Gobi. Here one finds the famous Mogao Grottoes, a kilometre-long desert gallery of Buddhist shrines dug out of a soft sandstone cliff at the edge of a small willow and poplar tree-lined oasis. Mogao has some of the finest examples of Buddhist art from the first millennium and is China's most famous ancient Buddhist sculptural site. The grottoes were created on several tiers connected by galleries between AD 366 and the 13th or 14th centuries. Over a thousand grottoes were dug out, but as they were open to the elements and unguarded for many centuries, some 200 had already been lost by the time they were first seen by Western explorers. Although pavilions had often been built in front of the shrines, these collapsed over time.

Today, an impressive brick façade with walkways at different levels has been built in front of the grottoes to protect them. Not only does each cave contain a statue of Buddha, but every wall and ceiling is painted. The murals vary from cave to cave, and may feature hundreds of small Buddha paintings, geometric patterns, scenes from the historic Buddha's earlier lives, narrative scenes from Buddhist texts, and so on. The largest grotto has a Buddha 35,5 m high extending virtually up the full height of the cliff.



The Mogao Grottoes, a kilometre-long desert gallery of Buddhist shrines dating as far back as the 4th century AD

We were fortunate to be guided on a three-hour tour of eight caves by a lead researcher of the Gansu Research Institute, who was delighted to receive visitors from so far away. Only a select and rotating number of caves are opened to visitors each year, except for Cave 17, which contains the famous Library Cave (films later showed us the art in many other grottoes, as well as the restoration methods used).

Around 1900, the self-appointed caretaker of the cave complex, a soldier named Wang Yuanlu, or Daoist Wang, noticed that a wall in Cave 17 sounded hollow. Breaking through the wall, he found a small cave filled with around 40 000 manuscripts in Chinese, Tibetan and a polyglot of lesser-known Silk Road languages such as Sanskrit, Sogdian, Tibetan, Uighur and Khotanese, even a Hebrew prayer on a single sheet of paper. The find is still the largest cache of original documents ever found on the entire Silk Road. The texts of so many different religions – Buddhism, Manichaeism, Zoroastrianism, Judaism and the Christian Church of the East – show how cosmopolitan the Dunhuang community was. The most famous text from the cave is the *Diamond Sutra*, which bears the date of 868. It was printed by woodblock, a technique developed in China in the 8th century, seven centuries before the method was applied in Europe.



Superb art in one of the Mogao Grottoes. As no photography was allowed, this image is a copy from a book.

In the first millennium Dunhuang was an important garrison town, a Buddhist pilgrimage centre and a trade depot, but it began to decline early in the second millennium. Library Cave was sealed some time after that. In 1907, when the British explorer and archaeologist Aurel Stein made Dunhuang the destination of his Second Central Asian Expedition, only a handful of Europeans had visited. One of the first was a Hungarian geologist, Laos Loczy, in 1879. Stein's discoveries in this part of the world secured him a British knighthood but lasting infamy in China for the same reason: the removal of tens of thousands of manuscripts to England.

Not that he was the only adventurer to do so: Frenchmen, Germans, Russians and other nationals were involved in this practice to a greater or lesser extent. The one nation that should have had a particular interest was China, but its government woke up to the find's value so late that it could only lay its hands on just a thousand texts. The story of the Mogao Caves is well described by Valery Hansen, professor of history at Yale University, in her 2012 book, *Silk Road: A new history*.

Another fascinating archaeological site lies a few hundred kilometres further east. This is the Wei-Jin Gallery, the site of more than 1 400 underground brick tombs constructed during the Wei and Jin dynasties between the 3rd and the 5th centuries AD. The tombs are a vast collection of colourful murals. The excavation of what are mostly family tombs, each housing the remains of three or four generations, began in 1972. We visited Tomb 6, descending a narrow, 30 m-long brick-lined stair-well. Wei-Jin tombs generally have two or three chambers connected by low underpasses paved with flower-patterned tiles. The chambers themselves are lined with exquisite murals. Each brick carries a motif and together these tell a story of the master and mistress's carefree life, and the servant's hard-working one. The entrances on surface were artfully decorated with delicate patterns symbolising clouds, water, fire, gods and weird animals. These tombs have given archaeologists an important insight into ancient Chinese feudal society.

In the flat and stony Gobi Desert near Jiayuguan we visited the two ends of China's Great Wall. Two ends because at the narrowest point between the Hei or Black and the Qilian or Snow mountains, where the Hexi Corridor is just 30 li or 15 km wide, the wall spits into two. One branch runs north into the torturous Black Mountains and the other south to where it overhangs a canyon at the foot of the Snow Mountains. In this way, China sealed itself off from the 'barbaric' west. We walked on the northern arm of the wall and saw the mudstone remains of the southern arm. The Great Wall here is nothing as high, wide or impressive as it is near Beijing, but fire or smoke beacons placed every 5 km further out into the Gobi Desert, the remains of which are still visible, enabled guards to warn about approaching threats. Troops would then pour out of the imposing Great Wall Fortress near the split of the wall to defend the realm. This section of wall was built by the Ming in the 15th century.

In this area we also visited the superb Silk Road Museum. Opened in 2013, we were the first Western group to visit, which caused great excitement. Another museum of great interest was the Long March Museum near Songpan in northern Sichuan, which has a fascinating display of maps, paintings and models of the Red Army's military retreat of 1934 and 1935 to evade the Kuomintang Army, which was on the point of wiping it out. This was not just one, but



View of the Snow Mountains from the fort at the end of the Great Wall in the Gobi Desert

a number of marches as various Communist armies tried to escape to the north and west. Best known is the march of the First Front Army led by an inexperienced military commission. It was on the brink of annihilation by Chiang Kai-shek's troops in Jiangxi province. The Communists, under the eventual command of Mao Zedong and Zhou Enlai, escaped in a circling retreat through some of China's most difficult terrain, reportedly covering 9 000 km in 370 days. Of the 80 000 fighters and hangers-on who left Jiangxi, only 8 000 managed to arrive at the final destination.

Back in Sichuan province, the tour participants were hugely impressed by ancient Chinese technological ingenuity. This is the amazing Dujiangyan Irrigation Project. Here, in the 3rd century BC, engineer Li Bing diverted the waters of the Min River via a system of weirs and irrigation canals to bring to an end annual floods that caused havoc in the Chengdu valley. The most important constituent of Bing's project is a water diversion levee. Called a graduated 'fish mouth', this permanent structure separates flood waters at different flow levels. By simple design and clever grading just the right amount of water is diverted automatically into the canal system to remove the river's flood threat. This truly remarkable invention has worked for 22 centuries.

Highlights on the tour included visits to many fascinating geological sites since we were accompanied by Morris Viljoen, professor emeritus of mining geology at Wits University, whose initial proposal it was to combine geology and archaeology on a tour to this region of China. Geological sites included two national parks in the Minshan Mountains, both World Heritage Sites, with different geological features. At both parks we walked many kilometres, all on board walks, which brought home to us the seriousness with which the Chinese now approach environmental protection. The Nine Tibetan Village Valley Nature Reserve features dozens of lakes that have been formed by glacial moraines extending 30 km along the Jialing River. Carbonate deposition has resulted in incredibly clear blue, green and turquoise-coloured lakes separated by calcium carbonate tuffa cascades and

waterfalls cladding the glacial debris. Vegetable matter in the water, such as fallen trees, has, in a sense, fossilised.

The second park, the Yellow Dragon Valley National Park, is situated at 3 700 m in an ancient glacial valley covered by terraced rim-flow pools that provide a multi-coloured spectacle. The name of the park derives from the calcareous tuffa limestone deposits, which assume a yellow colour in late afternoon light. Different forms of tuffa deposition, including flow formations from fast-flowing water and mini terracing from slower-flowing water, have created superb geological spectacles. And in Gansu's Hexi Corridor we visited the Danxia Landform Geopark comprising 40 km² of mountains that are beautifully decorated in rainbow colours as a result of the oxidisation of mineral bands in the rocks. Geoparks in areas hosting significant geological features are a new development around the world.



The Yellow Dragon Valley National Park is covered by terraced rim-flow pools that provide a multi-coloured spectacle

A visit to this part of China would not be complete without a visit to the Sichuan Panda Research Centre and Base. This centre took in the whole panda population from the well-known Woolong Panda Research Centre further north after that region became the shallow epicentre of an earthquake that destroyed Woolong in 2008. On our way north through the mountains for our visit to the national parks, we could still see evidence of the quake in the form of extensive debris flows and flow scars in the highly fractured and faulted rocks of the Wenshuan area.

We spent about four days in two autonomous Tibetan regions of China. These regions lie on the high Tibet-Qinghai plateau adjoining the former state of Tibet. The people of Tibetan origin in these autonomous regions form one of the 50-odd minority groups in the country. In Sichuan the region includes Songpan and the national parks in the Minshan mountains, and it was here that we woke up to a white, snow-covered countryside, with only Tibetan prayer flags adding colour. We overnighted at a lovely Tibetan lodge

incorporating much wood and even exterior wall coverings of woven bark for insulation. Water-driven prayer wheels stand over little streams running through the property.



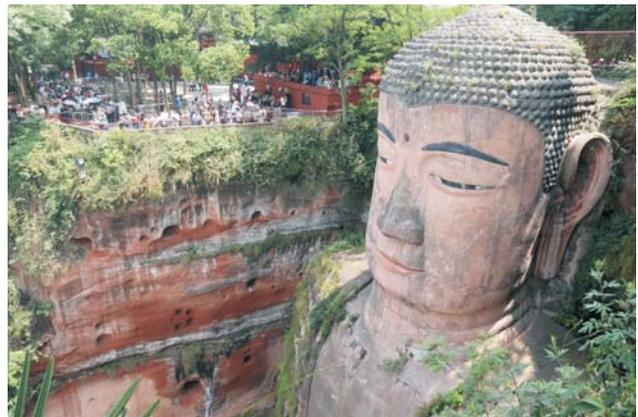
Snow-covered landscape on the Tibet-Qinghai plateau, with water-driven prayer wheel

The autonomous area in Gansu is a region of a dense forest and wetland grassland some four hours' drive north of Lanzhou. Here one finds the Labrang Buddhist Monastery. With 1 200 monks, Labrang is China's largest monastery outside Tibet. Founded in 1709, it is situated at the strategic intersection of four major Asian cultures: Tibetan, Mongolian, Han Chinese and Hui (which is now largely Muslim). It became one of the largest Buddhist monastic universities, housing four thousand monks in the early 20th century. It was also a Tibetan powerbase that strove to maintain regional autonomy between 1700 and 1950. The complex has 18 halls, six institutes of learning, a golden stupa, a sutra debating area and many hundreds of prayer drums in roofed-over corridors that are being turned by a constant stream of supplicants. We saw the herbal medicinal institute, a wonderful manuscript library that houses nearly 60 000 sutras, and an annual exhibition of sculptures finely crafted from coloured butter. Like so many religious institutions, Labrang suffered during the Cultural Revolution when its monks were sent to work in distant villages. On reopening in 1980, the government restricted enrolment to 1 500 monks.

An early high point of the tour was a visit to 3 100 m high Emei Shan, one of China's four holy Buddhist mountains and a World Heritage Site. Fir, pine and cedar trees clothe the slopes, azaleas line the paths, and lofty crags and cloud-kissing precipices beckon in the distance – just like in traditional Chinese paintings. Our destination was the Ten Thousand Buddha Summit to see the sun rise over the mountain splendour from the magnificent Golden Summit Temple. Cloud cover and mist are prevalent year round, but for us the sun made its appearance. To see the sunrise, we overnighted at the top of the mountain, but the holy mountain does not make it easy for one to get there.

An eco-bus takes one to midpoint, a cable car up the next stretch, and then one is faced by a 40-minute hike up steep stairs. Fortunately, those who had the nerve could be carried up the stairs on a stretcher slung at shoulder height between two burly porters. Going down was a lot easier. After sunrise, we spent the day walking down this lovely mountain and visiting The Long Life Monastery, the oldest surviving Emei temple reconstructed in the 9th century, and a lovely Buddhist nunnery in a forest.

We did, of course, visit many other Buddhist sites, such as the Thousand Buddha Cliffs along the Minjing River where over 2 400 lovely Buddha murals dating from as early as the Eastern Han dynasty – AD 25 to 220 – dot the cliffs. Or the Giant Buddha (Dàfó), which at 71 m is the tallest Buddha statue in the world, in the riverside town of Leshan. Carved into the cliff face, this World Heritage Site is best seen from a river ferry. It is told that a monk called Haitong started the statue's construction in 713 AD in the hope that the Buddha would calm the swift currents of the Dadu and Min rivers that come together at this point, and protect boatmen from the dangers of the lethal water hollows. It worked: during the 90 years of construction such an enormous amount of rock and silt was discarded into



The head of Dàfó, the Giant Buddha at Leshan. At 71 m it is the tallest Buddha statue in the world.

the river that the hollows were filled and the waters tamed. A lovely Tang dynasty temple, a centre of learning, is situated near Dàfó's head. Another giant Buddha, China's largest indoor reclining Buddha and a very nice piece of work, was visited by us in a 900-year-old wooden temple in Zhangye in the Gobi Desert. The temple is reported to be the birthplace of Kublai Khan.

Participants considered the tour such a success that a proposal that we go back to Dunhuang via Lhasa in Tibet and then follow the northern Silk Road along the Taklimakan Desert to Yarkand and Kashgar, and perhaps even to Samarkand in Uzbekistan, received a great vote of approval. This tour is now planned for 2018, as in 2017 there is great demand for a tour to the Ethiopian highlands.

HIGH COURT ORDER STOPS MINING AT CANTEEN KOPJE

South Africa's oldest dated archaeological site, the 2,3 million-year-old Stone Age site known as Canteen Kopje on the banks of the Orange River at Barkly West, has once again been saved from the threat of diamond mining. The site is renowned for its cache of Oldowan tools, the oldest stone tools known to science. Despite protection as a heritage site, alluvial diamond mining started there in mid-March, but was almost immediately halted by urgent legal action instituted by the McGregor Museum assisted by Sol Plaatje University and the University of the Witwatersrand. The interim interdict was made a final order of the Northern Cape High Court on 19 April. The Department of Mineral Resources, the South African Heritage Resources Agency (SAHRA) and the South African Police Services were co-respondents with the mining company, but decided not to oppose the museum's application for a final court order.

Prof. David Morris, head of archaeology at the McGregor Museum and chairman of ArchSoc's Trans-!Gariiep Branch, received high praise for his dedicated involvement. 'David threw himself into the effort, including a crucial night spent at the police station in Barkly West trying to get the mining halted,' University of Toronto anthropologist Michael Chazan said of the community's effort to save the site.

'In the sands removed by mining, the context of all archaeological material is now completely destroyed,' read a document presented to the court by Morris and colleagues. According to that document, Jacky Mary Wesi Mining Ltd created a pit of about 45 m by 25 m along with gravel piles and three access roads for heavy machinery. 'This is a victory not just for Canteen Kopje. This interdict upholds the provisions of the National Heritage Resources Act and the procedures it requires. We came perilously close to a discrediting of authorities and laws which would have set a dangerous precedent for South African heritage as a whole,' Morris commented. Archaeologists are now confident that the scale of the damage does not represent fundamental harm to the cultural and scientific resources at the site.

It is unclear how Jacky Mary Wesi Mining received a mining permit from the Department of Mineral Resources given the site's heritage status, or why SAHRA had lifted a previous 'cease works' order for the site. Together with the Wits and Sol Plaatje universities, McGregor Museum has now launched a review of the decisions of the Department to grant a mining permit and of SAHRA's decision to lift an order concerning the site. That application is aimed at securing the protection of such cultural and historical sites into the future, and ensuring that administrative agencies abide by the legislative requirements to protect our heritage. 'SAHRA understands the need for

the long-term sustainable protection of Canteen Kopje,' said SAHRA CEO Veliswa Baduza in a statement, adding that the site might be regraded to increase protection.

Norton Rose Fulbright law firm acted for the museum on a pro bono basis, while Wits University provided support and advice to the legal team and the McGregor Museum.

ARCHAEOLOGY IN AFRICA

Cancer on a Paleo-diet 1,7 million years ago?

An international team of researchers led by scientists from the University of the Witwatersrand's Evolutionary Studies Institute and the South African Centre for Excellence in PalaeoSciences recently announced in two papers, published in the *South African Journal of Science*, the discovery of the most ancient evidence for cancer and bony tumours yet described in the human fossil record. The discovery of a foot bone dated to about 1,7 million years ago from the site of Swartkrans with definitive evidence of malignant cancer pushes the oldest date for this disease back from recent times into deep prehistory. Although the exact species to which the foot bone belongs is unknown, it is clearly that of a hominin. In an accompanying paper in the same journal, a collaborating team of scientists identify the oldest tumour ever found in the human fossil record, a benign neoplasm found in the vertebrae of the well-known *Australopithecus sediba* child, Karabo from the site of Malapa, which dates to almost two million years ago. The oldest previously demonstrated possible hominin tumour was found in the rib of a Neanderthal who lived around 120 000 years ago.

Edward Odes, a Wits doctoral candidate and lead author of the cancer paper and co-author of the tumour paper, notes that 'Modern medicine tends to assume that cancers and tumours in humans are diseases caused by modern lifestyles and environments. Our studies show the origins of these diseases occurred in our ancient relatives millions of years before modern industrial societies existed.' The cancer in the metatarsal was identified as an osteosarcoma, an aggressive form of cancer that usually affects younger individuals in modern humans and, if untreated, typically results in early death. 'We don't know whether the cancerous foot bone belongs to an adult or child, nor whether the cancer caused the death of this individual, but we can tell this would have affected the individual's ability to walk or run,' says Dr Bernhard Zipfel, a Wits expert on the foot and locomotion of early human relatives.

Lead author of the tumour paper and co-author of the

cancer paper, Dr Patrick Randolph-Quinney of Wits University and the University of Central Lancashire in the UK, suggests: 'The presence of a benign tumour in *Australopithecus sediba* is fascinating not only because it is found in the back, an extremely rare place for such a disease to manifest in modern humans, but also because it is found in a child. This, in fact, is the first evidence of such a disease in a young individual in the whole of the human fossil record.' Both incidences of disease were diagnosed using state of the art imaging technologies including those at the European Synchrotron Research Facility in Grenoble, medical CT at the Charlotte Maxeke Hospital in Johannesburg, and the micro-CT facility at the Nuclear Energy Corporation of South Africa at Pelindaba.

University of the Witwatersrand, 28/07/2016



WORLD ARCHAEOLOGY

Axe fragment found in Australia 'world's oldest'

A rock flake found in Australia is believed to be from the world's oldest-known axe. It has been dated at between 46 000 and 49 000 years old. Humans are thought to have arrived in Australia around 50 000 years ago. The fragment, about the size of a thumbnail, was found in Western Australia's Kimberley region. It was excavated in the 1990s, but it was not until recently that its significance was recognised and confirmed by new technology. The axe fragment was not the first of its type found in Australia. The findings appear in *Australian Archaeology*.

Peter Hiscock from the University of Sydney, who analysed the fragment, said it was a flake off the edge of a polished axe or a ground-edge axe. He finds it interesting that the earliest appearance of axes in Australia seems to coincide with the arrival of humans in the landscape. 'The coincidence of the timing of the arrival of humans and the appearance of axes shows an inventiveness,' he said. 'Axes were not made in Africa, they were not made in the Middle East. So people arrived in Australia and invented this technology. It shows that there was novelty, the capacity to innovate.' Australian National University Prof. Sue O'Connor, who found the piece in the 1990s, agreed that it was the earliest evidence of a hafted axe in the world. 'Nowhere else in the world do you get axes at this date,' she said, adding that while such axes had appeared about 35 000 years ago in Japan, in most countries they arrived with agriculture within the last 10 000 years. The piece comes from an axe that was shaped and polished by grinding it against a softer rock such as sandstone, the ANU said.

Agence France-Presse, 11/05/2016

Fossil teeth place humans in Asia '20 000 years early'

Scientists in Daoxian, south China, have discovered teeth belonging to modern humans that date to at least 80 000 years ago. This is 20 000 years earlier than the widely accepted 'Out-of-Africa' migration that led to the successful peopling of the globe. Details of the work are outlined in the journal *Nature*.

Excavations at Fuyan cave have unearthed a trove of 47 human teeth. 'It was very clear to us that these teeth belonged to modern humans [from their morphology]. What was a surprise was the date,' said Dr María Martín-Torres, from University College London (UCL). All the fossils were sealed in a calcitic floor and above the floor are stalagmites that have been dated using uranium series to 80 000 years. This means that everything below those stalagmites must be older than 80 000 years. The teeth could be as old as 125 000 years, according to the researchers.

In addition, the animal fossils found with the human teeth are typical of the Late Pleistocene – the same period indicated by the radioactive dating evidence. Some fossils of modern humans that predate the Out-of-Africa migration are already known from the Skhul and Qafzeh caves in Israel. But these have been regarded as part of a failed early dispersal of modern humans who probably went extinct. The discovery of unequivocally modern fossils in China clouds the picture. 'Some researchers have proposed earlier dispersals in the past,' said Dr Martín-Torres. 'We really have to understand the fate of this migration. We need to find out whether it failed and they went extinct or they really did contribute to later people. We need to re-think our models. Maybe there was more than one Out-of-Africa migration.'

Prof Chris Stringer from London's Natural History Museum said the new study was 'a game-changer' in the debate about the spread of modern humans. 'Many researchers (often including me) have argued that the early dispersal of modern humans from Africa into the Levant recorded by the fossils from Skhul and Qafzeh at about 120 000 years ago was essentially a failed dispersal that went little or no further than Israel. However, the large sample of teeth from Daoxian seem unquestionably modern in their size and morphology, and they look to be well-dated. At first sight this seems to be consistent with an early dispersal across southern Asia by a population resembling those known from Skhul and Qafzeh. But the Daoxian fossils resemble recent human teeth much more than they look like those from Skhul and Qafzeh, which retain more primitive traits. So either there must have been rapid evolution of the dentitions of a Skhul-Qafzeh type population in Asia by about 80 000 years, or the Daoxian teeth represent a hitherto-unsuspected early and separate dispersal of more modern-looking humans.'

BBC News website, 14/10/15

NORTHERN BRANCH

CALL FOR 2017 FUNDING PROPOSALS

The Northern Branch (formerly Trans-Vaal Branch) of the South African Archaeological Society invites applications for funding by researchers and educators in the field of archaeology for 2017. South African archaeological research projects and educational programmes that promote knowledge about and an understanding of archaeology will be considered.

The deadline for applications is **31 December 2016**.

Funding by the Northern Branch may be split over more than one project and the branch committee's awards decision will be final.

Information to be included with applications:

1. The archaeological research or education proposal and the anticipated results or benefits, the project implementation schedule, the total budget estimate and the grant amount being applied for.
2. Should the project or programme for which funding is being requested form part of a larger project, information on how the part that needs to be funded relates to the whole.
3. Resources and facilities available for implement-

ing the project or programme.

4. A breakdown of the amount applied for into discrete expenditure categories to permit an award to be made for specific cost items.
5. Biographical details of the applicant(s), including professional qualifications and experience.
6. Two references attesting to the quality and success of previous archaeological or educational project work.
7. Plans to publish the research results.

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

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

Enquiries may be directed to Reinoud Boers, fox@boers.org.za, tel. 011 803 2681.

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.
Tel: +27 (0)21 712 3629. Fax: +27 (0)866 155 874.
archsoc@iziko.org.za. www.archaeologysa.co.za.

Northern Branch: PO Box 41050, Craighall, 2024
Membership Secretary: Mrs Pamela Küstner
012 365 3608
pmkustner@mweb.co.za
www.archaeology.org.za

Western Cape Branch: PO Box 426, Muizenberg, 7950
Chairperson: Ms Yvonne Viljoen
021 788 5620
yv3@mweb.co.za

KwaZulu-Natal Branch: c/o Natal Museum, P/Bag
9070, Pietermaritzburg, 3200
Secretary: Ms Barbara Dunn

031 209 1281
dunn@camsol.net

Trans-I-Gariep Branch: David Morris
053 839 2706
dmorris@museumsnc.co.za

The Society produces the following publications:

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

Subscription rates for 2017 are as follows: Individuals: Single – R290; Joint/Family – R310; Junior members – R200. Africa ordinary – R350; Overseas ordinary – R590. Institutions: Local and African – R590; Overseas – R1 200.

The Digging Stick

Editor and advertising: Reinoud Boers
PO Box 2196, Rivonia, 2128
Tel/fax: 011 803 2681
Cell: 082 566 6295
fox@boers.org.za
Marion Boers
TVaal Johannesburg

Layout:
Printer: