

SOUTH AFRICAN ARCHAEOLOGICAL SOCIETY

GNEWS

KwaZulu-Natal Branch Newsletter
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c/o KwaZulu-Natal Museum
Private Bag 9070
Pietermaritzburg
3200

FORTHCOMING EVENTS

- 11 March, 10h30, KwaZulu-Natal Museum, Pietermaritzburg:** Annalie Kleinloog will speak on 'Trails of yesteryear'.
- 8 April, 10h30, Natural History Museum, Durban:** KZN Branch AGM. Jeremy Hollmann will speak on the rescue of Cederberg rock art sites from flooding.
- 13 May, 10h30, KwaZulu-Natal Museum, Pietermaritzburg:** National AGM. Society President Jan Boeyens will speak on the cultural significance of rhinos in traditional African societies.

PAST EVENTS

The summaries included here first appeared on the Facebook page of the KwaZulu-Natal Branch of the South African Archaeological Society (see <https://www.facebook.com/ArchaeologicalSocietyKZN>). Also included is a report the Society of Africanist Archaeologists conference held in 2016 in Toulouse, France.

'Evidence for the earliest ivory trade in southern Africa: analysis of ivory from Early Iron Age sites in KwaZulu-Natal', a talk by Ashley Coutu, 10 May 2016

Ivory has been exported from Africa for longer than any other of the continent's resources, at huge cost to elephants. In the early 1600s, the elephant population in South Africa was an estimated 100,000. By 1920, the slaughter had reduced that number to about 150. This wanton killing supplied people across the world with various rather trivial ivory knick-knacks – piano keys, chess pieces, and handles for cutlery, hair brushes and combs. Trade volumes were far smaller in precolonial times,



The uMngeni valley in 1988. KwaGandaganda is marked by the patch of darker green in the bend of the river (photo: Gavin Whitelaw).

but the export of ivory from South Africa has a long, 1100-year history. Ashley Coutu presented evidence that might extend this history by 200 years, and take it deep into KwaZulu-Natal.

Ashley spoke about her research on ivory artefacts from three Early Iron Age sites in our region. The sites are the settlement remains of African farmers who lived between 1400 and 1000 years ago (see *Gnews* 56 and the online story, 2016/7). Two of the sites, Wosi and Ndondondwane, are in the Thukela valley below Kranskop. The third, KwaGandaganda, is in the uMngeni valley near Durban. All three yielded ivory bangles and pendants, as well as quantities of waste debris. By contrast, ivory is rare at other similar sites excavated in our region.

Because of their size and the kinds of artefacts they contained, we believe that Wosi, Ndondondwane and KwaGandaganda were the homes of chiefs. This status partly explains the ivory – elephant tusks were brought to chiefs as tribute. Their high value probably relates to the workability of elephant ivory, as well as its special symbolism – elephants were associated with the origins of life on earth, and tusks with male virility. For this reason, elephant tusks were a ‘chiefly’ material, because chiefs were responsible for the fertile productivity of the land. So it is interesting that Ashley’s first analysis, using a technique called ‘mass spectrometry’, shows that all the carved ivory came from elephants, even though people also hunted hippos, warthogs and bushpigs, which all have tusks.

Ashley also analysed carbon and nitrogen isotopes in the ivory. Isotopes are forms of chemical elements which differ in their atomic weight. Carbon, for instance, has



Elephant tusk at KwaGandaganda (photo: Gavin Whitelaw).

three natural isotopes with atomic weights of 12, 13 and 14. Animals absorb these isotopes into their bodies from food and water, so the ratios between isotopes in an animal's body can tell us something of its diet and environment. Ashley's analyses yielded an unexpected result. The elephants that grew the ivory found at Wosi, Ndondondwane and KwaGandaganda lived in an astonishingly wide variety of environments, from dense forests to open grasslands, from moist environments to arid zones. The isotopic range for each site is far greater than the ranges obtained from any major elephant population in South Africa today, including the Kruger National Park population which is spread across nearly 20,000 square kilometres.



Ivory waste flakes and shavings on the left, with artefacts on the right (photos: Ashley Coutu).

Apart from implying an enormous hunting catchment for each site, the isotopic analysis shows that the three sites had different catchments. We'd expect this for KwaGandaganda in the uMngeni valley, but Wosi and Ndondondwane in the Thukela valley are only 3 km apart. It seems likely that the Thukela river that flows between them was a political boundary that separated two chiefdoms.

Some questions emerge. Who hunted the elephants? Did hunting parties set out from farming communities living in the low-lying valleys, perhaps on the chief's instruction? Did hunter-gatherers living beyond the valleys hunt the elephants and carry the tusks to the chiefs' homesteads for exchange purposes? Was there a mix of these strategies? Did hunter-gatherer bands attach themselves to particular chiefdoms and so contribute to the three-catchment signature? Whatever answers might emerge, the isotopic evidence indicates a regionally extensive programme of ivory acquisition at all three sites. Were these programmes for local consumption only? Or is it possible that chiefs were seeking ivory to supply the Indian Ocean trade network? If trade was the goal, then KwaZulu-Natal has the earliest evidence so far for an international ivory trade in South Africa, in the 700s. Research time will tell.

Gavin Whitelaw

'Poison, plants and people in the past', a talk by Chrissie Sievers, 11 June 2016

Chrissie Sievers spoke to a lively audience at the Durban Natural Science Museum on the use of poison in human history. Chrissie is an archaeobotanist at Wits University and so plants are her special interest, but she also mentioned various animals that yield useful poisons.

Chrissie started with some well-known poisoning cases: the Russian whistleblower Alexander Perepilichny who died in England in 2012, supposedly poisoned by 'heartbreak grass' (*Gelsemium elegans*); and Georgi Markov, the Bulgarian author and playwright killed in London in 1978 with a pellet containing ricin, fired into his leg with an umbrella gun. These two poisons illustrate a theme that ran through Chrissie's talk. The plants that produce poison are often useful for medicinal purposes. Ricin and the medicinal castor oil, for instance, come from the seeds of the same plant, *Ricinus communis*. In some cases, dosage determines the result. In others, different applications or different parts of the plant have different consequences. As Friar Laurence muses while collecting wild plants in Shakespeare's *Romeo and Juliet*:

Within the infant rind of this weak flower
Poison hath residence and medicine power.
For this, being smelt, with that part cheers each part;
Being tasted, slays all senses with the heart.
Two such opposèd kings encamp them still,
In man as well as herbs – grace and rude will. (Act 2, scene 3)

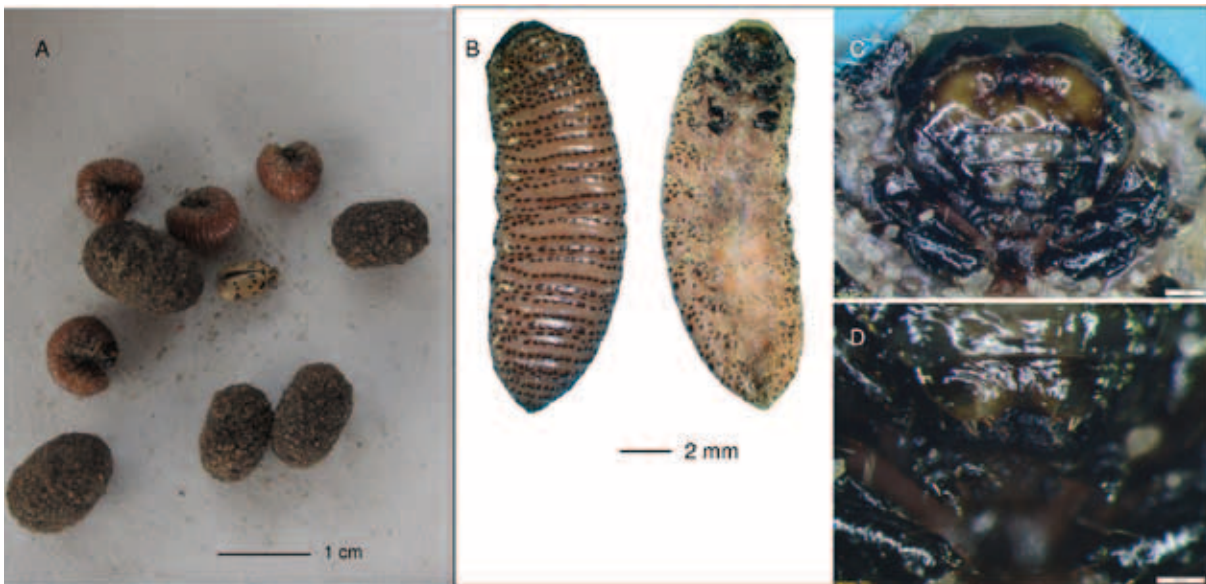


Friar Laurence with his raw materials, illustrated by John Gilbert and published 1865 in *The works of Shakespeare* (George Routledge and Sons).

A few years ago, archaeologists identified ricin on what they believe was a poison applicator in 24,000 year-old levels at Border Cave in the Lubombo mountains in northern KwaZulu-Natal. The identification is controversial because most botanists don't believe that *Ricinus communis* is indigenous to South Africa. Did it grow here 24,000 years ago? Is the Border Cave substance correctly identified, or is it something that is chemically similar to ricin?

We have more certainty about the burning of tamboti (*Spirostachys africana*) in a 49,000 year-old hearth at Sibhudu Cave, inland of Tongaat. Tamboti has a poisonous sap which can bring on a life-threatening allergic reaction or cause burn-like lesions that last for weeks. In a fire tamboti produces a smoke that is at first pleasantly aromatic, but which soon makes people sick. Food cooked over a tamboti fire can be deadly. So why did people at Sibhudu collect and burn it? They surely knew of its dangerous properties. Were they making poison? Or producing an insect-repelling smoke? Interestingly, the tamboti hearth is situated more than 2 m away from a cluster of three other hearths in the same level, perhaps safely distant from where people slept, but still close enough for its smoke to keep those annoying mosquitoes away.

An image that comes to mind when thinking about poison use is that of a Bushman hunter with his bow and poisoned arrows. Although evidence suggests that some hunters might have used powerful recurved bows and heavy arrows, southern African bows and arrows were more commonly lightweight tools that could not inflict a killing blow. Rather, they were tools to administer a poison dose. So for scholars of indigenous poisons, it is worth investigating how hunters today make arrows and



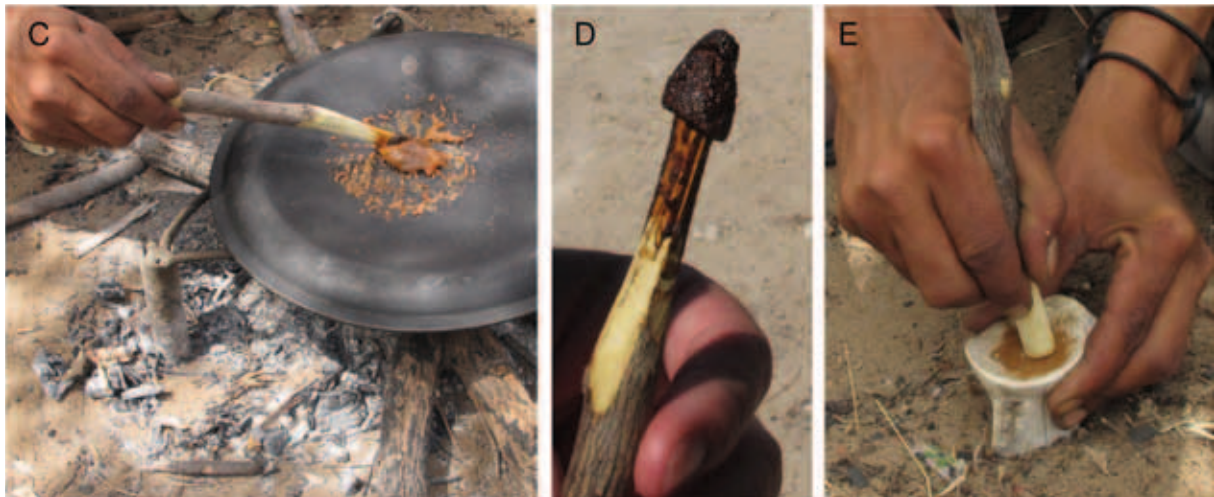
Three stages in the life cycle of the Chrysomelid beetle found under a marula tree in Tsumkwe. A. the gold and black-spotted beetle, pink, naked grub and earthen cocoon containing the grub; B. Polyclada sp. grub, dorsal and ventral views; C. Polyclada sp. grub mouthparts. Scale 1 mm; D. Polyclada sp. grub mouthparts. Scale 200 µm. Photos courtesy of Lyn Wadley.

poison. For this reason, several archaeologists spent time between 2013 and 2015 recording the practices of six Ju/'hoan hunters in the Nyae Nyae Conservancy of Namibia.

Poison production in Nyae Nyae is a complex, varying process with no single recipe. The most important ingredient is a larva of a Chrysomelid beetle, which hunters dig up from beneath infected marula trees. It is guts of the larva that are so poisonous. Generally, the hunters add larvae guts to an extract from tubers of the *Asparagus exuvialis* plant, which prevents the wounded animal from urinating and excreting the poison. They might also use other plant ingredients, including snake



The collection and preparation of *Asparagus exuvialis* additive. A. Hunters #oma /Kunta and /uce N#amce digging *Asparagus exuvialis* roots; B. #oma /Kunta softens a root by tapping it, /uce N#amce squeezes sap on the pot lid. Photos courtesy of Lyn Wadley.



C. The heated *Asparagus* sap is stirred until it reduces and darkens; D. Hardened *Asparagus* sap on the stirring stick; E. Grinding the hardened *Asparagus* sap to powder in the glenoid cavity of a scapula mortar. Photos courtesy of Lyn Wadley.

beans (*Swartzia madagascariensis* pods) and an extract of the tubers of *Harpagophytum procumbens*. The hunters handle the ingredients with extreme care throughout the whole process, reflecting just how dangerous is poison production. In the end, they discard the leftovers in a fire.

The Nyae Nyae work has implications for archaeology. The variability in production in that small area suggests that there was much variability in the past too. This poses a challenge to archaeological research, which relies heavily on repeated activities to produce archaeological deposits. Also, the burning of leftovers means that little might remain for our discovery. But Chrissie noted some suggestive evidence. It is possible that hunters were using bows and arrows from 70,000 years ago in southern Africa. Since the stone and bone points are small and light, their main purpose might have been to deliver poison. New finds surely await us.

Gavin Whitelaw

Report on the Society of Africanist Archaeologists biennial conference held in Toulouse, France, plus a post-conference excursion, 26 June to 8 July 2016

I arrived in Toulouse in the afternoon of 26 June in a car with a Belgian number plate. A little outside the city we were stopped and briefly checked by police as we passed through a tollgate: Belgium was playing Hungary in a Euro 2016 match in Toulouse that evening and the police were keeping a close eye on possible fans. Much to the delight of my Belgian conference colleagues, their side whacked Hungary 4–0. I missed the match – my sporting interest rather lay (somewhat relieved) in the narrow Springbok victory over Ireland in the rugby test the day before. And I was in rugby country: southern France is a rugby stronghold where the Springboks have great support.

I did not attend two specialist pre-conference workshops on Sunday, one for students, the other for scholars of stone artefacts. Conference registration was on Monday. With that administration stuff out the way, I spent part of the day practising my paper, due for presentation first thing on Tuesday morning. Because the two main academic languages in Africa are English and French, I arranged for the translation of my text slides into French. English speakers had my dulcet tones instead. The presentation went well, although my topic was something of an orphan. I'd been put in a session concerned with a time period I did not cover, mainly in an area that wasn't mine. The session was 'Pathways to political complexity in southern Africa in the 9th to 13th century AD'. Its principal focus was the Mapungubwe landscape. To enhance my relevance I finished with a picture taken from the top of Mapungubwe hill. I'm not sure it worked.

I was a minor joint author for the second paper of the day, though I did not present (Ashley Coutu presented; see the first summary in this edition of *Gnews*). This paper is now published in the *African Archaeological Review* and, superficially at least, had greater relevance to the session. So, with my presentation(s) out the way I could concentrate on other people's research results. Overall, my session was a good one with contributions from students and professionals covering Botswana, South Africa, Zimbabwe and Mozambique. It was an early indication of the vibrancy of the discipline in southern Africa.

I got the same sense of vibrancy from a session titled 'Connecting rock art'. Many of the presentations dealt with southern African material, with research from scholars based in South Africa, Zimbabwe, France, Canada and Britain. Both my assistant director Carolyn Thorp and my future museum colleague Ghilraen Laue presented in this session. I thought these two sessions – mine and the rock art one – were the pick of those I attended.

There were of course other good papers. One worth noting came from Annie and Xander Antonites of the University of Pretoria: they argued that animal skeletons could be treated as maps, so allowing the application of GIS techniques to faunal analysis. There was also interesting faunal data from East Africa that considered the dating of introductions of rats and chickens from Asia. It seems to me that data on this point from South Africa are unknown elsewhere. It was a relief to listen to two papers on the South African Later Stone Age, especially as in recent years this research focus has given way to an overwhelming (and overdone, I think) fascination with the Middle Stone Age. Unfortunately, neither presenter was a South African. The 'African fishers' session was interesting, although I sadly missed what was perhaps its best paper, by Edmond Dounias on fishing in the Congo Basin.

I was surprised to enjoy a session on 'The archaeology of the contemporary world and recent past', with papers that tackled the politics of death in Zimbabwe and KwaZulu-Natal, oral information in Lesotho, and the settlements of 'internally displaced' people in Uganda. Three papers in 'Rock art and heritage management'



From the ruined Chateau de Miglos, overlooking the village of Capoulet-et-Junac near Niaux Cave (photo: Gavin Whitelaw).

considered conservation from different perspectives. One dealt with inadequate rock art management by heritage authorities in KwaZulu-Natal (Aron Mazel). The other two examined at community-based heritage management in the Matobo Hills in Zimbabwe (Paul Hubbard and Laurence Shee) and in the Tsodilo Hills in Botswana (Stella Basinyi).

Overall it was an enjoyable and interesting conference, though I was disappointed with the presentation style of many speakers. Each speaker had 10–15 minutes in a day that ran from 8.15 in the morning to 6.00 in the evening. It's a long day in a long conference, so speakers who sit behind the desk reading their papers, inevitably in boring monotone, run the risk of putting listeners to sleep. Presentations should rather be performances that encourage audiences to listen.

Apart for the academic programme, the conference organizers provided other things of interest: a visit to the Toulouse Natural History Museum and to the rock art site of Gargas Cave. To these, three colleagues and I added further rock art sites in a self-organized post-conference excursion. They were the caves of Niaux, Pech-Merle, Mas d'Azil, Cougnac and, finally, Lascaux II, the extraordinary copy of a 40-metre-long section of Lascaux cave. We also visited the Prehistoric Park near Niaux, the city of Albi, a World Heritage Site, and the walled medieval hilltop village



Copies of paintings on display outside Niaux Cave (photo: Gavin Whitelaw).

of Cordes-sur-Ciel (possibly meaning ‘Rocky heights against the sky’ or ‘Ropes to Heaven/the sky’).

A main attraction in Albi was the Cathedral Basilica of Saint Cecilia (or Albi Cathedral), said to be the largest brick building in the world. Its heavily painted interior depicts, amongst other things, horrifying scenes of Judgement Day. As I left the building I saw teachers leading classes of small children into the cathedral. No doubt the experience will give them nightmares for life. Such things anger me. Cordes-sur-Ciel was definitely more fun, with its steep climb to the very top of the village, a pretty place in the glorious sun. But it is worth remembering that its position on the hill was chosen for defensive purposes. Other medieval villages in France have similar locations, pointing to the violence of the times in which they were established.

Our main interest, of course, was the rock art. In southern France and in Spain the cave art dates back nearly 40,000 years, though most of what we saw was between 20,000 and 12,000 years old. The artists had entered deep, cold limestone caves, sometimes travelling hundreds of metres underground through difficult terrain in faint uncertain light from flickering hand-held lamps and torches, and there painted images of various animals and signs. Like Albi Cathedral, it was surely not an experience for the faint-hearted. This rock art is the earliest known



Scenes from Albi Cathedral (photo: Aron Mazel).

representational art in the world (though Namibia has yielded a painted stone dated to about 27,000 years ago), and I feel a strong sense of pride that a South African archaeologist (and former teacher) – David Lewis-Williams in his 2002 book *The Mind in the Cave* – has provided what is currently the best interpretation of the art and its social context.

Each cave offered a distinct experience, which was partly due to the guides and partly because of differences in the art. At Cougnac, once the staff learnt that we were archaeologists, we were offered a special tour that took us to depths and paintings not on the general tourist route. Niaux Cave, with graffiti from the 1650s alongside 13,000-year-old paintings of bison, horses and ibex, is partnered by the



Aron Mazel and Tom Huffman (centre left) resting en route to the village centre at the top of the hill in Cordes-sur-Ciel (photo: Gavin Whitelaw).

Prehistoric Park, where an excellent reproduction of the so-called ‘Salon Noir’ or Black Chamber reveals so many more paintings than shown to us underground.

Lascaux II, an older reproduction, was opened in 1983 after Lascaux itself was closed to visitors in 1963 to protect the paintings from various fungal and mould infections introduced by a million-odd visitors. Sadly, the infection continues to threaten the ancient art despite international efforts to stop it. Lascaux II is nevertheless a powerful experience, if one can ignore the guide’s rather trivial patter and the crush of too-many fellow visitors.

Some messages from our post-conference tour: most of our fellow visitors to the caves were French. There is evidently a strong sense of public pride among the French in the painted caves, and a desire for knowledge about them. It is something that we have not yet developed significantly in South Africa. At each cave site that is open to visitors, books and postcards are available for purchase (we were not allowed



And some lovely local beers too: the Hotel des Grottes near Pech-Merle Cave (photo: Gavin Whitelaw).

to take photos in the caves). These are standard fare, but of special interest are the comics and children's books depicting the discovery of Lascaux and stories about life in the Ice Age 20,000 years ago. The comic books in particular are great fun; comic books are apparently a popular 'French thing' for all ages. I wish we had such resources available for open sites in South Africa.

One final point: I take back everything nasty I've said about French food. It was excellent.

Gavin Whitelaw