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LOOKING BACK AND LOOKING FORWARDS

Four decades of archaeology in Lesotho

Peter Mitchell

I write this almost exactly 40 years since I first visited Lesotho. Arranged by the late Lucas Smits, that trip gave me the opportunity to see several sites in the Senqu Valley of Lesotho's highlands. Among them was Sehonghong, finds from which formed the cornerstone of my doctoral thesis. Four decades on from that first visit, how has Lesotho's archaeology changed? What do we know now that we did not know then? Where have new projects been carried out and what form have they taken? How has Lesotho's archaeological infrastructure developed? And, above all, how does the archaeology of this relatively small African country contribute to the big questions of the broader global past? As of 1985, professionally conducted archaeology in Lesotho was still less than 20 years old and only four projects had been undertaken there (Fig. 1). First, came the extension to its eastern highlands of Patricia Vinnicombe's work recording San rock paintings in the uKhahlamba-Drakensberg Escarpment of KwaZulu-Natal. In both areas she collaborated closely with her then husband, Pat Carter, and between 1969 and 1974 they excavated at four sites in eastern Lesotho, as well as recording dozens of rock art sites and open-air stone-tool scatters. Patricia's work there formed part of her landmark book *People of the Eland* (Vinnicombe 1976), while Pat's remained largely confined to his 1978 Cambridge PhD thesis (Carter 1978). His excavations at Ha Soloja, Moshebi's Shelter,

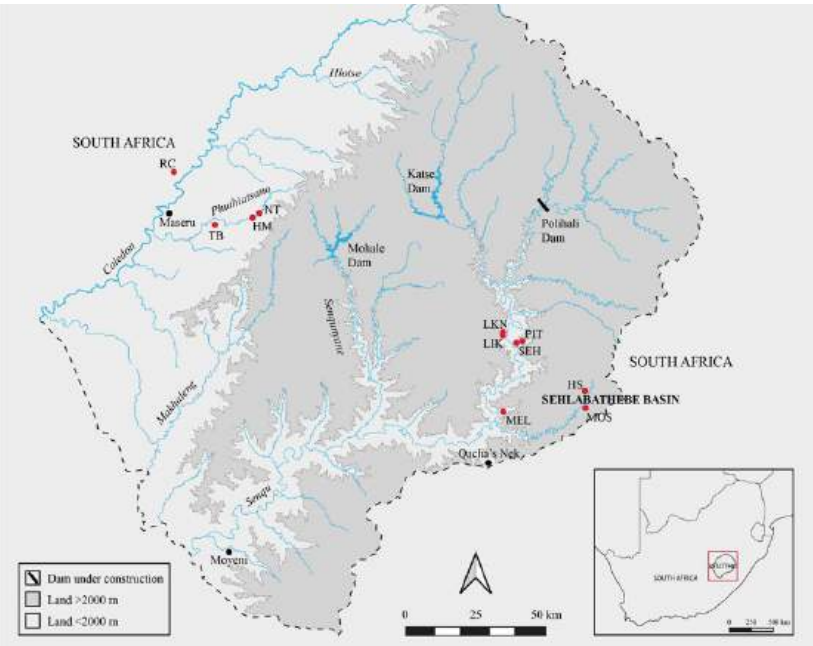

Fig. 1 Map of Lesotho sites: HM – Ha Makotoko; HS – Ha Soloja; LIK – Likoaeng; LKN – Likonong; MEL – Melikane; MOS – Moshebi's Shelter; NT – Ntloana Tšoana; PIT – Pitsaneng; RC – Rose Cottage Cave; SEH – Sehonghong; TB – Thaba Bosiu

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OTHER FEATURES IN THIS ISSUE

Fig 2: Melikane Shelter

Melikane (Fig. 2) and Sehonghong – the first ever undertaken in Lesotho – nevertheless demonstrated a wholly unexpected antiquity to human occupation of the Maloti Mountains, pushing it well back into the Middle Stone Age (MSA).

Photographing hundreds of sites

Pat and Patricia's separation and the latter's move to Australia put an end to their Lesotho work together. Recording the country's rock art continued, however, in the form of Lucas Smits' Analysis of the Rock Art of Lesotho (ARAL) Project. Professor of Geography at Lesotho's National University, Lucas had a longstanding interest in San rock art and secured external funding to develop this into a systematic effort to photograph hundreds of sites across the country (Smits 1983). Often arduous, this work was first carried out by Joe Alfers and then by Taole Tesele. Between them, they had made field notes and sketches and produced a comprehensive colour slide record for over 600 sites before the ARAL trip to Sehonghong in which I took part in 1985. Taole was an extraordinarily able – and tolerant – guide on that occasion, not least since I volunteered to do all the cooking.

Some of the sites that ARAL recorded lay along the line of the Southern Perimeter Road (SPR), built in the early 1980s to upgrade communications between Maseru, Lesotho's capital, and Qacha's Nek in the southeast of the country. In a first for Lesotho, John Parkington and colleagues from the University of Cape Town also surveyed the line of the SPR before its construction, recording dozens of sites and excavating briefly at two of them. Students from the National University of Lesotho (NUL) took part in this fieldwork, the first time that Basotho nationals gained experience of archaeological fieldwork (Parkington et al. 1987).

Recognition of the need to mitigate the impact of major development projects on Lesotho's archaeological record that came with the SPR investigation took a major step forward around the time of my first visit when Lesotho and South Africa initiated the Lesotho Highlands Water Project (LHWP). This project consists of a series of dams in the mountains of Lesotho designed to impound water and transfer it to the greater Johannesburg area while simultaneously allowing Lesotho to generate hydroelectric power. Successive dams at Katse, Mohale and Polihali have all received archaeological attention. I will come back to Polihali and cultural resource management as a whole but for now note the work of Jonathan Kaplan, who undertook much of the work in Phases IA and IB of the LHWP, and of Jannie Loubser, who recorded rock art sites in the Hlotse Valley, home to some of LHWP's early infrastructural support.

Three years of research in the west of Lesotho

On finishing my doctorate in 1987, I was fortunate enough to secure funding from the British Academy to start doing my own fieldwork. Melikane, one of the large rock-shelters first dug by Pat Carter being temporarily inaccessible, I relocated to the west of the country, initiating three years of work in the Phuthiatsana Basin, close to the NUL campus (Fig. 3). I focused on three rock-shelters but also tested sev-

Fig. 3: The Phuthiatsana Basin, western Lesotho

eral smaller sites and recorded (or in the case of rock art re-recorded) many others. This was the first time that anyone had excavated in Lesotho's western lowlands and the sites dug produced a sequence of observations through the Holocene Later Stone Age and, at Ntloana Tšoana, back into the Middle Stone Age (Mitchell and Steinberg 1992; Mitchell 1994). Fortuitously, my fieldwork coincided with that of Lyn Wadley and her students at Rose Cottage Cave and elsewhere in the eastern Free State so that by its end we had a much better understanding of the hunter-gatherer past on both sides of the Caledon River.

Fig. 4: Sehonghong Shelter

Turning east: working at Sehonghong

A second post-doctoral fellowship (this time at the University of Cape Town) allowed me the opportunity of returning to Sehonghong (Fig. 4), something that I had had in mind for some time. Pat Carter's initial work there had removed the site's stratigraphically complex deposit in 100 mm thick horizontal spits, a strategy that guaranteed speedy results but inevitably mixed materials of different ages. Digging there in the winter of 1992, I therefore focused on paying more attention to stratigraphic detail by excavating in contexts defined by variation in sediment colour and texture, as well as sieving with a much finer mesh to recover vastly larger numbers of shell and ostrich eggshell beads among other small items.

Taking advantage of the relatively compressed nature of Sehonghong's stratigraphy, we were able to get back as far as the interface between the Middle and Later Stone Ages roughly 26 000 years ago before drawing the season to a close. Multiple papers were published as a result (eg Mitchell 1996). Written with Ina Plug as lead author, some of them focused on the site's rich faunal assemblages that included a surprising diversity of antelope species and, at times, a heavy emphasis on catching fish from the Senqu River and its Sehonghong tributary (Plug and Mitchell 2008a, b).

Largest fish assemblage from a single site

I had originally planned to return to Sehonghong to continue excavating its underlying MSA deposits. However, at the end of a very long day walking around the local landscape as our 1992 season ended, I came across a highly unusual site that had escaped Carter and Vinnicombe's attention when they were there in 1971. Discussing options with John Parkington and revisiting the area in 1993 to take sediment samples for stable carbon isotope analysis, it was clear that this new site was far more promising. It was therefore at Likoaeng (Fig. 5) that I excavated in 1995 and again in 1998.

What made Likoaeng so exciting? First, it is an open-air site located along the banks of the Senqu River a short distance from Sehonghong, but one that boasts an exceptional quality of faunal preservation. Second, it is a location that people visited repeatedly, producing a situation in which multiple phases of occupation have accumulated at the same place. And third, as excavation showed, it seems likely that that 'place' (in John Parkington's classic use of the word in 1980) underwent at least one important shift during that time, from being a habitable, if perhaps not very deep, overhang to being a completely 'out-of-doors' open-air location.

Excavations at Likoaeng more than lived up to expectations and I plan to complete writing up a monograph on the site next year. Not only do some of its most recent occupations retain a strong degree of spatial integrity, giving us insights into how people arranged their activities, but all of them confirmed that fishing was an important part of what went on there. All told, Ina Plug identified over 60 000 individual elements in a total sample that, she estimated, came to about 1,3 million bones, by far the largest fish assemblage from a single site anywhere south of the Sahara!

As well as fishing, the people who camped at Likoaeng also hunted a wide variety of game (perhaps as they waited for seasonal spawning runs to arrive) and, in the site's most recent occupation, kept small numbers of cattle and sheep, a full millennium or more before Basotho farmers settled the highlands (Mitchell et

al. 2011). Helen Fewlass' analysis of lipid residues associated with milk-producing ruminants on ceramics from both Likoaeng and near-contemporary levels at Sehonghong neatly confirmed Ina's original archaeozoological identifications (Fewlass et al. 2020).

An accelerating pace of research

Over the past quarter of a century, investigations of Lesotho's archaeology have significantly accelerated. They have also seen new work on San rock art and extended into the very recent past, that of the Basotho themselves. Taking the highlands first, new data on late Holocene hunter-gatherer presence have come from John Hobart's work in 2000 at Pitsaneng, a small rock-shelter near Sehonghong, and Charlie Arthur's re-excavation of the LSA deposits at Moshebi's Shelter in 2009. Much larger in scale has been the Adaptations to Marginal Environments in Southern Africa (AMEMSA) Project of Brian Stewart and Genevieve Dewar. Beginning in 2008 at Melikane (Stewart et al. 2012; Pazan et al. 2022), this has carefully re-excavated some or all of the MSA deposits there and at Sehonghong, shifting more recently to another of the sites first dug by Pat Carter, Ha Soloja. As a result, we now have a much richer, soundly dated and well-understood idea of technological change through much of the late Pleistocene in what is southern Africa's highest region, an area where cold and accessing food must always have set challenges for hunter-gatherer populations.

Work at another site, Likonong, by Kyra Pazan is now exploring how those challenges were met by MSA communities even further back in time, while at the more recent end of the late Pleistocene spectrum Justin Pargeter has reanalysed the Robberg assemblages from my 1992 excavations at Sehonghong. Ostrich eggshell beads there and at Melikane have also been studied, using strontium isotopes to provide insights into where they were originally made. Led by Brian Stewart, this work suggests that people living in highland Lesotho maintained exchange networks stretching hundreds of kilometres into the South African interior (Stewart et al. 2020).

All the projects I have just mentioned are in southeastern Lesotho. Further north, the extension of the LHWP to the Mokhotlong area has seen by far the biggest and most comprehensive exercise in rescue archaeology that Lesotho has yet witnessed. Run by PGS Heritage and directed in the field first by Tim Forssman and then by Len van Schalkwyk, work at the Polihali Dam has revealed a rich hunter-gatherer past in this part of the Maloti-Drakensberg Mountains. While most of the Polihali research has yet to be published, it shows that people made extensive use of this high-elevation, mountainous part of Lesotho over many thousands of years (potentially back into the Acheulean), maintaining long-distance connections with communities elsewhere and generating an archaeological record rich in rock art, occupied rock-shelters and open-air sites (Forssman et al. 2020).

Building archaeological capacity

Dams have not only been built in Lesotho's mountains, but also its lowlands. In 2008, Charlie Arthur and I began a World Bank-funded project at Metolong ahead of the construction of a smaller dam that flooded roughly 18 km of the Phuthiatsana Valley, including the sites of Ha Makotoko and Ntloana Tšoana where I had worked in 1989. Happily, Charlie was able to undertake extensive work at both sites (and elsewhere in the valley) before this happened, radically revising our understanding of the local Stone Age sequence in the process through some of the most careful excavations ever conducted in Lesotho (Arthur et al. 2018; Arthur 2022; Arlt 2025). Several doctoral theses later, the potential of the Metolong material has still not been exhausted, but more important than its academic results the project made real strides in developing archaeological capacity in Lesotho by training Basotho nationals.

Some of those who worked at Metolong with Charlie went on to graduate study in South Africa. Others became professional field archaeologists working on projects in both Lesotho and South Africa. Sam Challis's work at Matatiele was one beneficiary of this and followed his doctoral work on rock paintings in

Fig. 5: Likoaeng

eastern Lesotho and the wider Maloti-Drakensberg region that transformed our understanding of the connections between local hunter-gatherers and their Nguni-speaking neighbours amid the profound cultural changes of the 19th century (Challis 2012). Other contributions to wider rock art research that have come from Lesotho include novel insights into San beliefs about rainmaking, the 'taming' of antelope and other animals and snakes. Another is the development of the first large-scale set of radiocarbon dates for San paintings. Adelphine Bonneau's work here drew heavily on some of the sites lost to floodwaters at Metolong (Fig. 6) (Bonneau et al. 2017).

Back in 1985, only one Mosotho, Taole Tesele, was engaged in archaeological fieldwork, no national museum existed and there was no scope for Basotho to learn about archaeology in their own country. The transformation that the last four decades has seen in all these areas has been profound, though it is far from complete. Taole himself was the first Mosotho to study archaeology at university, graduating with Honours from UCT in 1994. Subsequently, Moleboheng Mohapi undertook a PhD at Wits with Lyn Wadley before teaching at NUL for a while. Nthabiseng Mokoena-Mokhali, who worked with Charlie Arthur at Metolong, is now continuing that tradition, inspiring Basotho students to think of archaeology and heritage management as worthwhile careers. Her success was very much on show at last year's ASAPA conference, held at the NUL campus in Roma. Significantly, Nthabiseng's own PhD involved fieldwork at Thaba Bosiu (Fig. 7), Lesotho's national shrine and the capital of its first king, Moshoeshoe I (Mokoena 2024). Along with the historical archaeology work of Rachel King (2019) around Moyeni (Quthing), this was the first project to seriously employ archaeology to investigate the history of the Basotho themselves. I am sure it will not be the last.

The importance of Lesotho's archaeology

In March this year Donald Trump gratuitously mocked Lesotho in his speech to the United States Congress, describing it as a country that 'nobody has ever heard of'. Had he bothered to inform himself, he might have discovered that Lesotho has, among other things, high-altitude ecosystems crucial to biologists interested in studying biodiversity in fragile environments, some of southern Africa's most important sources of freshwater, and a geological record that speaks to both global climate change and the evolution of early dinosaurs, birds and mammals. He would, of course, also have learned that it has an interesting human past, one that has largely been brought to light by around six decades of archaeological research. Some of the main reasons why that research is important at the broader international scale were outlined in *Nature* by way of a response (Mokoena-Mokhali et al. 2025).

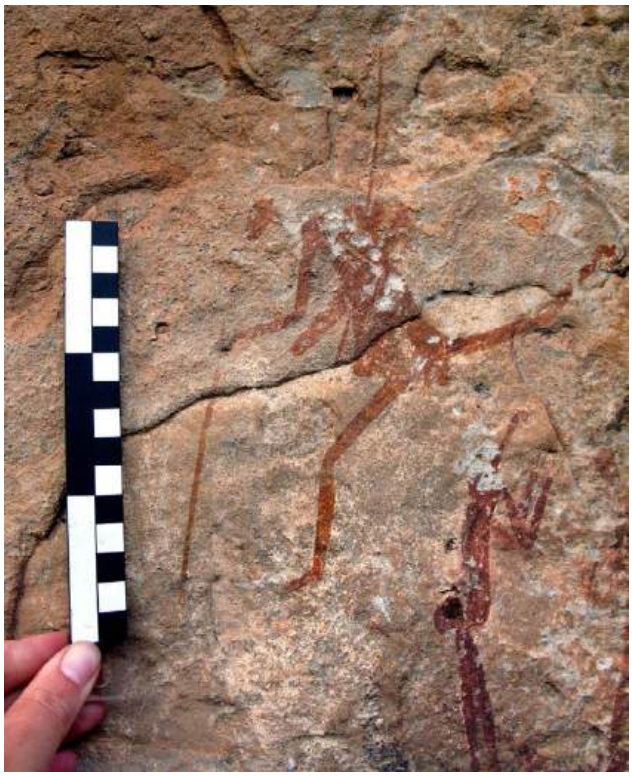

Fig. 6: San rock paintings in the catchment of the Metolong Dam

First, Lesotho is important because it has some of the oldest sites anywhere in Africa – or the wider world – that document how early members of our species tackled the challenges of making a living in high-altitude environments. Evidence from Polihali, as well as sites like Likonong and Melikane, is most relevant here and includes early indicators for making clothes. Second, these sites and others in both highland and lowland regions of the country form a growing dataset that allows us to begin exploring how hunter-gatherers coped with fluctuating climatic and ecological conditions and organised their social lives at geographical scales compatible with those observed among ethnographically known groups. This emphatically does not imply that people in Lesotho lived in precisely the same ways as the Kalahari San. Rather, it means that the high density of well-excavated sites emerging into focus in the wider Caledon Valley, along the Senqu and in the Sehlabathebe Basin, and at Polihali now allows us to investigate hunter-gatherer adaptations on a human scale that is increasingly resolved in both time and space.

A third reason why Lesotho's archaeology is so important lies in its incomparable heritage of San rock art. Not only does the country boast hundreds of sites, some still incredibly well preserved, but in Melikane, Sehonghong and Pitsaneng it has the only paintings ever interpreted by a San informant – Qing – who came from a background where rock art remained a living tradition. Indeed, we know that paintings were

Fig. 7: Thaba Bosiu giving a sense of its impregnable position as a natural fortress (photograph courtesy of Wikimedia Commons and Marduk CC0)

executed at Sehonghong no more than two or three years before Qing visited that shelter with Joseph Orpen in December 1873 (McGranaghan et al. 2013). The information that Qing relayed there and during the rest of his time with Orpen has helped revolutionise rock art research not just in southern Africa but across the world. Were they only better preserved, Melikane, Sehonghong and Pitsaneng would surely merit World Heritage Site status because of this.

And finally, Lesotho provides us with a case study for understanding the agency and resistance of Indigenous populations confronting the advance of European colonialism and capitalism. Nthabiseng Mokoena-Mokhali's work at Thaba Bosiu speaks directly to this, as do some of the observations recorded during work near the Metolong Dam. Up in the highlands, James Ferguson's (1990) work at Mashai on the complex entanglement of rural African communities within international economic networks is a landmark of its kind. Archaeology is ideally placed to explore this further by looking at how people use material objects and space to define themselves in their everyday lives, enriched by extensive oral and written histories as well as anthropological research.

All countries contribute to increasing our knowledge of what it is to be human. Lesotho punches above its weight in this respect. Important challenges remain, including the opening of a fully functional national museum and the repatriation to it and/or to NUL of most of what has been excavated over the past 60 years. Several areas likely to be rich in archaeological sites, such as the valleys of the Senqunyane and Makhaleng Rivers, have barely been explored, while in others we have still to move beyond large rock-shelters to explore a much wider variety of sites. Conservation, capacity-building and drawing on archaeology to reinforce national identity and contribute to national income are other priorities. Thinking back to 1985, however, a great deal has already been achieved. Grateful for having had the opportunity to be involved in some of this, I look forward to the next four decades, seeing not just a continuation of work in collaboration with international researchers but of evermore direction of Lesotho's archaeology by Basotho archaeologists themselves.

Acknowledgements

I thank everyone who has worked with me in Lesotho or on Lesotho-related matters over the past decades, as well as all those in Lesotho and South Africa who have facilitated that work, including Svenja Arlt, who kindly drew the map. Reaching back to the start, particular thanks go to Ray Inskeep and Pat Carter for having kicked everything off. *Kea leboha haholo*.

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WORLD ARCHAEOLOGY

Europe's oldest-known book

On 15 January 1962, archaeologists in Greece were excavating the tomb of a Macedonian nobleman near Thessaloniki when they found amid the ashes of a funeral pyre, encased in burnt mud, a papyrus scroll, the first to be found in mainland Greece. The document's date and its literary nature subsequently led to UNESCO declaring it Europe's oldest book. The Derveni Papyrus is believed to date to between 340 and 320 BC. In the manuscript it copies, which was likely written near the end of the fifth century BC, the author discusses religious practices related to the fate of the soul after death and delivers a treatise on a poem ascribed to Orpheus.

Richard Janko, a classicist at the University of Michigan, has called the papyrus 'the most important new piece of evidence about Greek philosophy and religion to come to light since the Renaissance'. But, he adds, 'It is also the hardest to understand, and all work on it is inevitably work in progress'. This is largely due to the fact that the fire that preserved the papyrus – saving it from the deterioration usually caused by the humidity of Greek soil – also destroyed it. 'There were pieces that were completely blackened,' archaeologist Polyxeni Adam-Veleni, then-director of the Archaeological Museum of Thessaloniki, told the Associated Press in 2006. When researchers carefully peeled apart the scroll, they collected about 266 fragments and ultimately pieced the fragments into 26 surviving columns of text, all with their bottom halves burned away. A relatively complete version of the text would not be published until nearly 50 years later.

The mystery author seems to have been a follower of the philosopher Anaxagoras and the book's audience seems to be prospective religious initiates of Orphism, the cult that followed the teachings of Orpheus. Though many of their practices remain unknown, Orphics are believed to have been monotheistic.

They abstained from eating meat and focused on purity, reflecting Anaxagoras' teachings that the soul survives after death and only the pure will be saved. Orphism's parallels with Christianity make the papyrus an especially interesting window into the spiritual practices emerging in the area at the time. In addition to the religious insights the papyrus offers, the author's interpretation of a now-lost Orphic poem reveals information about Greek philosophical thought of the era.

As technology improves and allows better reading of the manuscript, scholars continue to debate the content of the document and how the fragments should be put together in the hopes of gaining even more insight into Hellenic religion and philosophy of the time. *Teresa Nowakowski, 15/01/2025*

ARCHSOC NORTHERN BRANCH

Applications for research grants in 2026

The Northern Branch makes three grants per year of up to R10 000 each to fund research and/or educational projects in the archaeology of southern Africa. Applications must be made in writing and include the following:

1. Name and contact details of the applicant.
2. An outline of the research or education proposal, and anticipated project results or benefits.
3. The project implementation schedule.
4. The amount of the grant being applied for. Give a breakdown of the amount applied for into discrete expenditure categories to permit an award to be made for specific cost items.
5. If the project to be funded forms part of a larger project, provide details of how the funded part relates to the whole.
6. If you are applying to other organisations for funding all or part of the project described under (2) above, give the names of these organisations and the amounts being applied for.
7. The resources and facilities available for implementing the project.
8. Biographical details of the applicant(s), including professional qualifications and experience.
9. References from two suitably qualified people attesting to the quality of the project.
10. Plans to publish the research results.

Funding is available per calendar year. There is no deadline for applications, but prospective applicants should aim at submitting their applications as early in the year as possible. Successful applicants will be required to provide six-monthly progress reports and a final project report. On completion of the project, an article on the project must be supplied for publication in ArchSoc's magazine, The Digging Stick.

Applications should be submitted to John Wright, the chairperson of the grants' subcommittee of the Northern Branch. johnbwright99@gmail.com, mobile 060 335 5104.

ARCHAEOBOTANICAL RESEARCH REVEALS CROPS AND WILD PLANTS USED AT SCHRODA

Annie Antonites

The study of archaeological plant remains is not well developed in southern Africa and the available dataset on the dynamics of Iron Age crop packages and agricultural strategies is still poorly understood. Sampling strategies to recover botanical remains from archaeological deposits have improved in recent years. Systematic sampling through flotation techniques, for example, allows for a more informed interpretation of plant use.

Plant remains are present in many legacy collections kept in museum and university storerooms. In older collections, carbonised plant remains were often collected haphazardly, and usually only when present in large and obvious concentrations. Although not sampled in an ideal way, these remains can still offer a valuable insight into past plant use. Bianca Steyn and Alexander Antonites of the University of Pretoria and I analysed carbonised seeds from Schroda as part of a larger project on understanding and contextualising foodways at the site (Antonites et al. 2024).

Schroda is a Middle Iron Age settlement that is dated to c. 900 to1100 AD and is located within the modern-day boundaries of the Mapungubwe National Park in South Africa's Limpopo Province. The settlement featured prominently in the early development of complex societies in the middle Limpopo Valley area. Edwin Hanisch excavated Schroda during the late 1970s and early 1980s, amassing a large collection of cultural material, including ceramic vessels, imported glass trade beads, ceramic and clay figurines, a diverse range of metal, ground stone, bone, shell and ivory objects, as well as a large assemblage of animal remains (Antonites 2024; Calabrese 2007; Van Schalkwyk and Hanisch 2002). This collection is curated at the Ditsong National Museum of Cultural History in Pretoria. The figurines are on permanent display and is well worth a visit.

Some plant remains from Schroda were collected by hand during excavation and screening. Although flotation was uncommon at the time, Hanisch's excavation field notes mention that he did collect at least one such sample. Our research mainly focused on plant remains that Hanisch had initially identified as such and had been kept separately. Several bags of unsorted carbonised material collected as 'charcoal' are still present in the collection and will be analysed at a later stage. A large volume of wild and domesticated plant seeds, which apparently came from the mentioned flotation sample, added considerably to our sample. All seeds were identified based on published guides and the botanical comparative collection at the University of Pretoria Archaeology Laboratory.

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Archival photograph of carbonised marula seeds in association with processing stones at Schroda, taken by Edwin Hanisch during excavations in 1981 (courtesy of Ditsong National Museum of Cultural History)

Cowpea (*Vigna unguiculata*) was the most common crop identified, followed by pearl millet (*Cenchrus americanus*) and two samples of likely sorghum (*Sorghum* sp.). The sorghum and some of the pearl millet was preserved as carbonised lumps, which made it difficult to accurately identify the remaining seed shapes. The range of domesticated plant remains from our sample is comparable to the general crop package from other sites in the region (Eloff 1979; Schoeman 2006; Steyn and Antonites 2019; Van Ewyk 1987). Two crops from this package, finger millet (*Eleucine coracana*) and African ground nut (*Vigna subterranea*), were not identified from Schroda. This absence could be due to several reasons, such as sampling and preservation bias, different cooking and processing practices or unsuitable climatic conditions. Finger millet requires at least 800 mm of rain, which is above the annual rainfall experienced during Schroda's 200-year settlement (Smith et al. 2007).

Amongst the plant remains was a single seed of a

likely mung bean (*Vigna radiata*), which originates from India (Fuller 2007; Fuller and Harvey 2006). This legume made its way to the continent via Indian Ocean trade networks (Boivin et al. 2014). Schroda's involvement in these expanding coastal-interior trade networks during the 10th and early 11th centuries is known from the large number of Zhizo and later K2 Indo-Pacific glass trade beads, as well as marine shells, such as cowries (*Monetaria annulus*). The occurrence of a mung bean at the site suggests that plant foods formed part of the trade goods that made their way to the interior. Mung beans have been identified at later Mapungubwe period sites (Steyn and Antonites 2019), but the one from Schroda could represent the earliest evidence of its presence in the southern African interior.

Wild plants identified from the samples included marula (*Sclerocarya birrea*), baobab (*Adansonia digitata*), nyala berry (*Xanthocercis zambesiaca*) and likely watermelon/wild melon (*Citrullus* sp.) seeds. Marula endocarp and opercula fragments were the most prevalent in the wild plant sample, probably because of their size and the ease of identifying this seed from fragments. An interesting photograph, archived at Ditsong, shows a concentration of carbonised marula seeds in association with stones that were likely used to crack them open. The marula, baobab, nyala berry and watermelon/wild melon probably represent only a fraction of the available plants that would have been used by the Schroda community. More wild plants may well be identified among the bags of unsorted carbonised material stored at the museum.

Our study has confirmed the cultivation of key crops (cowpea, pearl millet and probably sorghum) in the middle Limpopo Valley during the 10th and 11th centuries. Wild plants were also harvested and may have been used in different ways, in addition to meal ingredients. Legacy collections, although often problematic to work with, can provide useful information for regional datasets.

Acknowledgement

We thank the Northern Branch of the South African Archaeological Society for funding the analysis and for enabling this contribution towards understanding Iron Age plant use.

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JANETTE DEACON RETIRES AS HONORARY SECRETARY

Dr Janette Deacon, the Archaeological Society's long-standing Honorary Secretary, has retired from this position. She has been in and out of hospital since May last year after falling and breaking her hip, which meant two surgeries. She is not yet fully mobile and has not been able to attend Coucil meetings.

As planned, Am**anda Esterhuysen**, who has moved to Cape Town to take up a position of Associate Professor in the Department of Archaeology at the University of Cape Town, has taken over as Honorary Secretary. We wish her all the best in this role.

Janette Deacon's involvement with the society over many decades is laudable and highly appreciated. The Council wishes her a quick and full recovery.

ANNUAL GENERAL MEETING

Notice is hereby given in terms of section 8(a) (i) and (ii) of the Constitution of the South African Archaeological Society that the Annual General Meeting of the society will be hosted by the Northern Branch in person at 18:30 at the THE VINTAGE CLUB HALL, THE VILLAGE, 76 HOMESTEAD AVENUE, BRYANSTON on 9 April 2026. Prof. Peter Mitchell will present his Presidential Address provisionally entitled 'Remembering Eeyore: Archaeological Perspectives on the Donkey in Human History'.

Items for the agenda should be submitted to secretary@archaeology.org.za before 10 March 2026.

Amanda Esterhuysen, Honorary Secretary
9 January 2026

AN APPRECIATION OF VICTOR BIGGS (1943–2024)

Neil Rusch with Mike Burgess and Amy Rusch

My memory of Victor Biggs (Fig. 1), who died in 2024, takes me back to Matatiele, some 40-odd years ago. I vividly recall the Biggs family farm, York, located on the road between Matatiele and Qacha's Nek on the Lesotho South Africa border. Victor's enthusiasm for rock art was palpable. I see his early attempts to make rock art copies spread out on the kitchen table. Shortly before this, Victor had met Patricia Vinnecombe and her passion for rock paintings and re-drawing had rubbed off on him.

Fig. 1: Victor Biggs, Wedgely Farm, Qwanti River, 2010. Victor Biggs Archive.

With hindsight, there appear to be two consequences of that meeting. First, an evolving skill for making copies; his eventual dexterity was exemplified in the images he painted on the walls of the Thomas River Rock Art Centre, which he established in 2003. Second, the meeting took Victor back to his formative encounter with rock paintings at the age of ten when growing up in the Kei River Valley on the farm Gaikaford. There are hundreds of painted sites on either side of the Great Kei River and many along the Kei's tributaries. Victor's encounter with this vast repository of paintings was profound. It is no exaggeration to say he was the most knowledgeable person on the rock paintings of the eastern and north-eastern Cape region as he documented and collected a huge archive of material in his lifetime.

Flight and transformation

I will briefly share a few aspects of Victor's work to pay tribute to his field work and documentary endeavours. In his photographic archive, samples of bird-transformation images (Figs 2a, b, c, d, e) are localised to the Black Kei, White Kei, Kraai and Klipplaat River catchments. These paintings do not have typical alite morphology (Pager 1994; Laue 2022; Jolly 2024), although the allusion to flight is a clear graphic element, shared between the image sets. When subjected to D-Stretch, Fig. 2a reveals further information. The finger dots and the figure striding off to the right are likely created using the same pigment but were painted after the figure on the left, which is over-printed with dots that reveal a relationship between the two figures and a temporal sequence.

Another figurative element appears at several sites across the region. The motif is typified in Fig. 3 by the bent-over figure with 'emanations' streaming into or from chest and upper torso. Features in this painting from Elliot district (SAM AA 1745) are repeated in the Biggs photographic archive (Figs 4a, b, c, d). The motif is not common, but a pattern of distribution becomes discernible as Victor's archive is extensive, counting thousands of images and recording hundreds of sites. Even a cursory study of the photographs shows the bent-forward 'strings-attached' motif occurring at the Upper and Lower Longreach, Camp Siding, Longfield, Inverket and other sites, an area including the Imvani, Waqu, Thomas, Klipplaat and Kei River catchments.

Other links can be made. For example, an association between bird transformation and the bent forward

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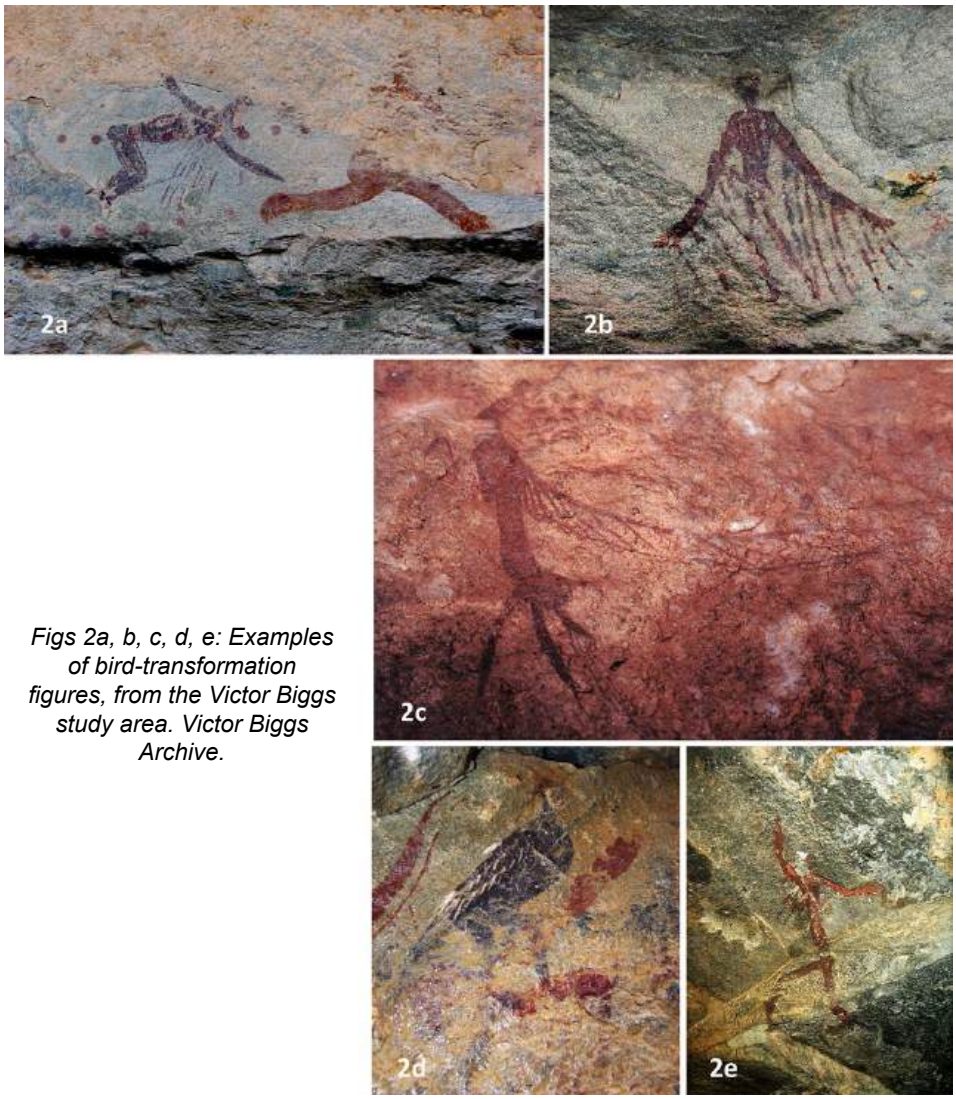
Amy Rusch is an artist. Her work includes making display copies of archaeological artefacts from Blombos cave, Klipdrift shelter and Klasies River for exhibitions.



Figs 2a, b, c, d, e: Examples of bird-transformation figures, from the Victor Biggs study area. Victor Biggs Archive.

'strings attached' figures is noticeable since some bird-transformation paintings repeat graphically the 'emanations' streaming from the upper torso or from under the wings, as per examples Figs 2a, 2b and 2e. A thorough study may provide further regional information.

Comparative possibilities

Another aspect of Victor's work was his interest in locating the sites visited by George Stow (1822–1882) and Brother Otto Mäeder (1863–1937), both of whom made interpretive re-drawings of the painted sites in the Biggs study area. Victor's photographs document the condition of the paintings more than a century after Stow and Otto made their copies. In many cases, there has been significant damage and deterioration, mostly natural in nature. As an example, the lower body and legs of the rain animal are missing from a photograph taken in 2011, whereas these details are shown in the Stow copy #38 in the Digital Bleek and Lloyd, George Stow Collection (GSC). In other cases, paintings have been added in the 140 years after Stow made his copies. The 'late white' animal that appears in a photograph taken in 2015 (Fig. 5) at a site located on the lower Black Kei, is not in the Stow copy #54 (GSC) of May 1870.

Comparison raises other fascinating questions and anomalies. This is apparent in a painting on the banks of the Cacadu near the St Marks Mission Station. An eland is painted over the white rhino-like animal (Figs 6a, b, c) but curiously the one-horn animal is unobscured and clearly visible in Stow's copy #56 (GSC). On the other hand, the forward-facing eland is fully detailed in Stow's copy, but the photograph shows an animal that has partly disappeared and is no longer recoverable, even with D-Stretch enhancements. These and other aspects of comparison highlight historic information and provide a measure of attrition and foreseeable longevity of the paintings.

'Lost' Springbuck

A high point in Victor's search was locating the cave of 'lost' Springbuck. The story he told was recorded by Mike Burgess some years ago (Burgess 2016). In summary the account goes as follows:

After Stow's death in 1882, Lucy Lloyd purchased Stow's work from his widow. When Lloyd died in 1914, Stow's work was inherited by Lloyd's niece, Dorothea Bleek, who in 1930 published *Rock Paintings in South Africa from Parts of the Eastern Province and Orange Free State*, in which 74 of Stow's rock painting copies appeared. Of these, Dorothea managed to find 60 in shelters and caves in 1928, but not the springbuck captured in Stow copy #57 (GSC). Dorothea did not persist in her search because she was told by a Mrs Bulwer from the St Mark's Mission that numerous panels of rock art had been removed by members of the Cape Mounted Rifles shortly after the Last Frontier War of 1877/78.

In an astute process of deduction, Victor remembered that Brother Otto Mäeder had been based on the Kei River at Keiland's Catholic Mission in 1913/14 (15 km

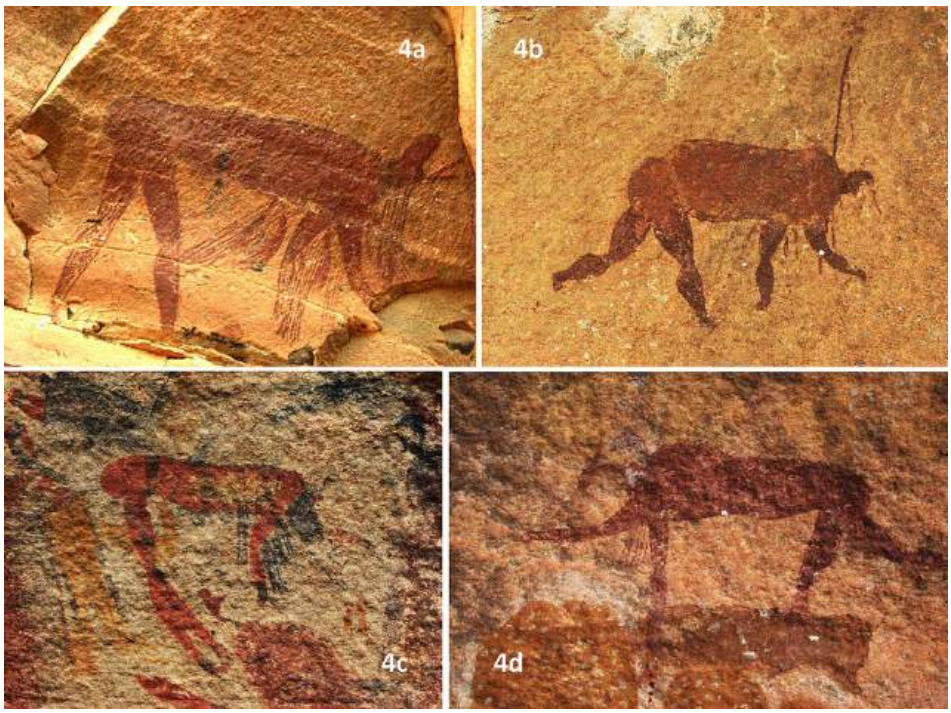
up-river from Gaikaford) with the task of making interpretive copies of rock paintings (see Flett and Letley 2007). It turned out that Brother Otto copied Stow's 'lost' springbuck, in addition to many other paintings along the Kei at places such as Sabalela, Eliweni, Hoyita, Qwebe-qwebe, Embindweni, Nqo-losa, etc. It was thus clear that the springbuck were still to be found somewhere along the White Kei. Victor told Mike that 'It was quite a thrill to find those paint-ings. While every Stow site I find is pleasing, that one was especially pleasing as the springbuck had been written off' (Burgess 2016).

Fig. 3: Rock panel from the Eliot district, Eastern Cape. Photograph Neil Rusch.

More from Brother Otto

By comparing Brother Otto's copies to those done by Stow raises questions about (1) Stow's methods and (2) the painted chronology of the region. Could the eland that is missing from Stow's copy of the Cacadu site (Figs 6a, b, c) have been added after Stow's visit and prior to Brother Otto's rendition of the same painting? (See also The African Rock Art Digital Archive, 126HC). As in the photograph, Brother Otto's copy shows the eland painted over the one-horned white animal. Did Stow resort to interpretation to fill-in the hidden details of the white animal, or did he see it in its entirety?

Current wisdom might say that he resorted to interpretation, but Brother Otto adds a twist to the issue. For example, his copies document occurrences at Dreyhoek, Qwebeqwebe and Eliweni in which fine-line animals are over-painted on monochrome black images. This sequence up-ends the current order of thinking that views black monochrome paintings as more recent than fine-line imagery (De Prada-Samper and Hollmann 2017: 15) and begs the question, was fine-line painting being practiced in the region much later than we think? Did Stow see, or not see, the eland captured in Brother Otto's copy and the photograph?



Figs 4a, b, c, d: Bent-forward, emanation-streaming figures, photographed in the Lower Imvani, Thomas, Klipplaat and Kei River catchments. Victor Biggs Archive.

Cattle and fat-tailed sheep

There are hundreds of cattle painted in the shelters of the Eastern Cape, often in association with eland. Relative to

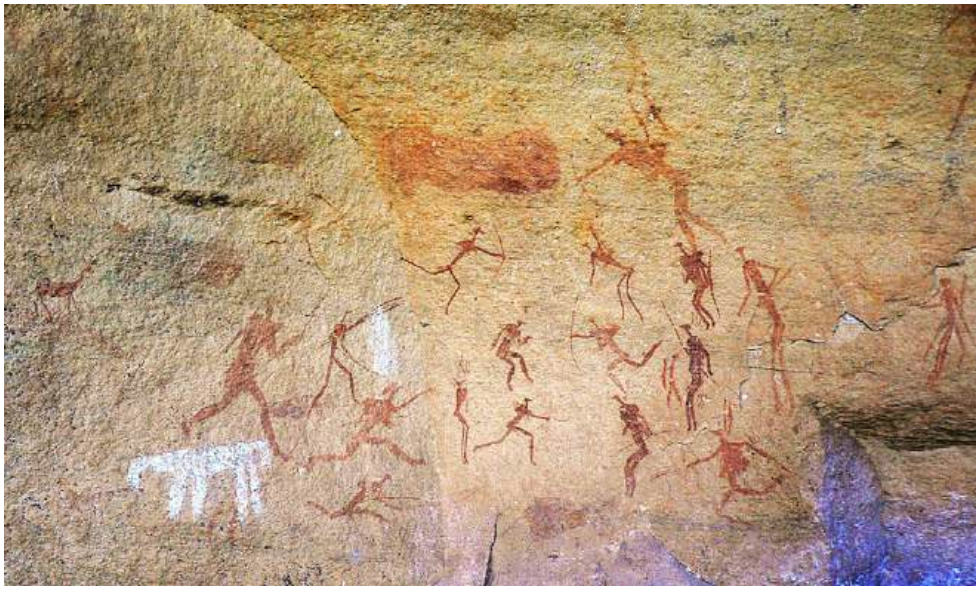


Fig. 5: A 'late white' animal painted alongside earlier depictions; recorded in George Stow's copy #54. Victor Biggs Archive.

cattle, paintings of fat-tailed sheep are rare in the area, but several examples are photographically documented in the Biggs archive. The sheep are mostly depicted as individuals, not in flocks, as happens at a few sites in the Western Cape. However, at St Marks there are several polychrome fine-line eland, one of which is overpainted on four fat-tailed sheep, thereby insinuating a complex set of painting events that do not conform with accepted sequential chronology.

Family and rock art history intersect in a localised story involving a Victorian Lady, Christina Forsyth, a missionary based in the Xolobe River Valley, and a painted shelter that gave rise to Stow copies #58 and #59 (GSC). Christina became a feature of family history because Victor's grandfather, Robert Acton (my great grandfather and Amy's great, great grandfather), was called to rescue her after she appears to have suffered a nervous breakdown following 29 years of service to her faith and her congregation between 1886 and 1915.

Victor knew nothing of this until 1991, when he was in pursuit of the Xolobe site he discovered in the shelter a painting of the Victorian Lady. The shelter is located across the Great Kei from Gaikaford and relatively close to Khuse where Robert Acton had begun trading in the late 1800s. Victor learnt from his mother (aunt Francis) and aunt Joy about Christina Forsyth and how Acton contacted the Presbyterian mission station at Mgwali (near Bolo) that came to fetch her from Xolobe. She returned to Scotland in 1915 and died a few years later. WF Livingston's book, *Christina Forsyth of Fingoland: the story of the loneliest woman in Africa* (1919) tells her story.

Guided by chronology, evidence indicates that the Victorian Lady was not painted in the Xolobe shelter when Stow visited in April 1867. As with previous examples, this leaves little doubt that rock painting was being practiced, perhaps sporadically, in Victor's study area in the late 19th and early 20th centuries. This insight should not come as a surprise, since it receives corroboration from other sources located in the region (Stanford 1910) and indeed from Stow himself (Stow 1905, 1930).

What is startling is that this terminal phase is marked not only by 'late whites' (Fig. 5) and black monochrome images, but very likely by fine-line painting as well. If this is right, it illustrates two painting techniques/traditions, and possibly three, that existed side-by-side spatially and temporally. The paintings, documented by Stow, Brother Otto and Victor Biggs, challenge a straight-forward sequence of events –

Figs 6a, b, c: Photographed in 2008, the super positioning illustrated is reflected in Brother Otto's copy of the painting. Details b and c illustrate sections of Stow's copy. Victor Biggs Archive.

one tradition/painting technique superseding and replacing another – but rather tantalisingly point to complex and ongoing interactions between various groups of people (and values) cohabiting in the region (see Hall 1994).

A private practice

I think the reason why Victor was avidly interested in Stow and Brother Otto is because, at heart, he was captivated by the process and the aims of making copies. He verbalised his appreciation on several occasions: 'I do not know if I would have found these paintings, if it was not for the copies' (Biggs 2016). The Thomas River Rock Art Centre established by Victor in 2003 was an opportunity for him to refine his practice of making copies. But unlike most other rock art copyists he did not use sheets of paper, acetate, tracing paper, cellophane or any of the familiar mediums. Instead, he painted his interpretative copies onto the walls of the museum.

There are no photographs of Victor in the process of painting (pers. comm. Linda Biggs 16/9/2025). It seems that his practice was a singular and private affair. Perhaps, choosing to work as he did, pivots on a question, directed towards the present and the future: what will this painting look like a hundred years from now and Victor's response: I wish to share what I have seen (Fig. 7).

Afterword

Earlier this year we retraced the footsteps of Stow and Dorothea Bleek to a site that Stow described as 'the great cave on the banks of the Neiba, lower Zwart Kei'. Unfortunately, it was not possible to discuss our trip with Victor before his death, but his directions guided us to the great cave site.

My communications with Victor and our visit to the great cave illustrate to me the interwoven strands of knowledge that are conveyed by word of mouth. I appreciate the sense of conviviality I had with Victor and the role he played within the family and the wider community. I think that spirit of conviviality has continuity. I hear it in Victor's acknowledgement to Patricia Vinnecombe, which was always generous: 'Patricia taught me how to trace and record rock art. I was greatly inspired by her example' (Biggs 2016). And I hear the continuation of conviviality in these words by Amy: 'On Saturday, my dad, his brother and I went on a journey to find a specific rock painting that we have been looking for, for over two years'.

We ended up not finding that painting but instead explored an incredible site in the Kei River Valley. After this, we found our way to Thomas River and the little stone building that was Victor's rock art centre. His legacy lives on in this labour of love, and anyone can walk in. Here one meets paintings made by Victor to the scale of the originals at Storm Shelter, a rock art site in a remote valley in the Northeastern Cape. In the main section Victor painted a full-scale depiction of the Linton Panel and many, many other notable paintings. During his life the centre acted as a vibrant hub where he introduced the public to the rock art of the Eastern Cape. Many field trips to actual sites in the region departed from here.

Fig. 7: Victor Biggs' redrawing of a painting. Victor Biggs Archive.

Our search for the painting we set out to find will surely continue and we look forward to exploring the many sites that Victor spent a lifetime investigating.

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LETTER TO THE EDITOR

Did fossils of tusked dicynodonts inspire a San rock painting?

Dear sir – The August 2025 edition of *The Digging Stick* carries a lead article by Dr David Witelson entitled 'Did fossils of tusked dicynodonts inspire a San rock painting?' (Witelson 2025). In this article Dr Witelson responds to an article by Dr Julien Benoit, published in *PLos ONE* (Benoit 2024). I do not take issue with the presentation of differing views on an enigmatic example of rock art – after all, this is the very essence of good and healthy scientific debate. In fact, the December 2024 edition of *The Digging Stick* includes an article presenting another alternative interpretation of this painting (Paterson 2024: 6–10). However, I am concerned by one of the opinions expressed by Dr Witelson, namely 'Benoit (2024) takes 'Kou'ke's testimony to be a "geomyth", an awkward notion that treats myths as resulting from Indigenous attempts to explain geological or palaeontological phenomena'.

The term 'geomyth' is the root word for the discipline of Geomythology, pioneered by Eric Buffetaut (Buffetaut 1987) and more recently championed by Adrienne Mayor (Mayor 2004, 2005, 2011). Compared with other parts of the world (like North America, Europe and Asia), Africa and southern Africa have lagged in exploring and promoting this discipline. Along with Dr Benoit and others, I have attempted to address this problem, with the encouragement of Dr Mayor. Consequently, a number of publications have ensued that attempt to redress this deficiency (eg Helm et al. 2019; Benoit et al. 2023).

Dr Witelson's apparent dismissal of the merits of an entire discipline as 'awkward' is not helpful in my view. The rock art in question could ideally be approached through combining the expertise found in a variety of disciplines: rock art research, palaeontology, ethnography, geomythology, etc. It is the use of ill-chosen adjectives that bedevils our discourse. In this case, simply remove the word 'awkward', and the sentence is neither confrontational nor controversial.

I note too that Dr Benoit's original article was published in a respected international journal and therefore went through the peer review process. I suggest that the appropriate place for what seems essentially to be a rebuttal would be the same journal, or alternatively a peer-reviewed journal such as the *South African Archaeological Bulletin*. In either case, in addition to the article being appropriately scrutinised through peer review, the original author (Dr Benoit) would have been given the opportunity to respond. In the article in *The Digging Stick*, we are not informed if either process was followed.

Lastly, I note that the title of Dr Benoit's article included the phrase 'A possible later stone age painting of a dicynodont'. Inherent in the use of the word 'possible' is an acknowledgement of the lack of certitude. I hope that any debate henceforth on this important example of southern African rock art will be conducted in a constructive and respectful manner.

Charles Helm, African Centre for Coastal Palaeoscience, Nelson Mandela University

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ARCHAELOGY IN BRIEF

1 000-year-old child mummies in Lima

Archaeologists in Peru have unearthed four mummies of children believed to be at least 1 000 years old from what was once a sacred ceremonial space in one of the oldest neighbourhoods of modern-day Lima. It is believed that the children, alongside the remains of an adult, come from the Ychsma culture that developed on Peru's central coast before the Inca Empire rose. Some remains were found at the foot of a staircase on a small hill that is believed to have once hidden a temple. Archaeologist Luis Takuda said the temple was likely built 3 500 years ago. The mummies' skulls still had hair on them. *Reuters, 22/11/2023*

CANNABIS WAS PROBABLY USED BY LITERATI IN SHAKESPEARE'S ENGLAND

Francis Thackeray

In Shakespeare's time, cannabis was described by John Gerard (1597) in his book *The Herball or General Historie of Plantes.* Botanists call it *C. sativa*, originally from India. Its fibre can be used for the manufacture of materials such as clothing, canvas, rope and paper. A common word for the plant is hemp. Industrial hemp has essentially no THC, which stands for psychoactive tetrahydrocannabinol. Although modern industrial hemp has no mind-stimulating properties, it is still cannabis.

Shakespeare, 'weed' and tobacco

In one of his poems (Sonnet 76), Shakespeare refers to 'invention in a noted weed'. There is absolutely no doubt that 400 years ago the word 'weed' referred to at least one kind of tobacco, notably North American *Nicotiana* introduced by Sir Walter Raleigh, among others. 'Invention' refers to creative writing, and perhaps not coincidentally the late Lester Grinspoon (2001) from Harvard Medical School indicated that cannabis in moderation has the potential to stimulate creativity.

An engraving by William Marshall (Fig. 1) in a book by Richard Brathwait (1638) is of great interest. It depicts an early 17th century scene in which a smoker is holding a long clay 'tobacco' pipe in one hand but, curiously, a piece of smouldering hemp (cannabis in the form of rope) in the other. Both the pipe and the hempen rope exude smoke, the former being associated with the words *Sic omnia fumus* ('so we smoke everything'). This can be interpreted as a cryptic, symbolic and humorous reference to the smoking of more than one kind of 'tobacco', including cannabis (Thackeray 2025b).

Pipes from 'Shakespeare's Garden'

Shakespeare's Garden, written by Ernest Law (1922), deals in part with an excavation of the foundations of Shakespeare's house New Place in Stratford-upon-Avon. Fragments of long clay tobacco pipes, of the kind smoked in Shakespeare's time, were found. It cannot be said that any of those pipes were smoked by the Bard himself but at least they came from the foundations of his house.

Fortunately, those old pipe fragments have been kept. They are curated by the Shakespeare Birthplace Trust in Stratford-upon-Avon. When I examined them

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Fig. 1: Gentleman smoking a pipe held in one hand while holding a piece of smouldering rope (hemp/cannabis) in the other. Reproduced with kind permission of The Library, King's College, Cambridge.

25 years ago, I was thrilled to see black residues inside the small pipe bowls. Chemical analysis was done using Gas Chromatography Mass Spectrometry (GCMS) as part of a study that I undertook with Nick van der Merwe of the Archaeometry Laboratory, University of Cape Town, and Inspector Tommy van der Merwe of the Narcotics Laboratory of the South African Police (Thackeray et al. 2001). Sure enough, there was nicotine tobacco, but in eight of 24 pipe samples there were signals that pointed to cannabis. Although intensities were low, the evidence for this kind of 'tobacco' was based on what are called mass-charge ratios (m/z) determined from residues in pipe bowls and stems associated with significant values of 193, 231, 238, 243, 246, 258, 271, 295, 299, 310 and 314 m/z (Thackeray 2025a&b). Four pipes

with signals of cannabis came from Shakespeare's residence.

References to Muses and hemp being 'vapourised and versed'

In 1620, John Taylor wrote a poem about cannabis entitled 'In Praise of Hempseed'. He celebrated the use of hemp for clothing ('weeds') and paper (mentioning Shakespeare) but he also made cryptic reference to a 'Muse' as a source of inspiration (Thackeray 2016). Moreover, he refers to a 'number' of people who were evidently actors who 'rehearsed' but also 'vapourised and versed', meaning that they smoked and wrote poetry (Thackeray 2025a). Astonishingly, in this poem about hemp, Taylor refers to a kind of 'tobacco' that when 'vapourised' was a 'drug divine, fit to be served by Sisters [Muses] Nine'.

My interpretation (Thackeray 2025b) is that hemp/cannabis was perceived by some as a source of inspiration or 'Muse', not only for writing but also for acting. Of course, Shakespeare was both a writer and actor. Without mentioning names, it would seem that Taylor might have been making cryptic reference to the Bard himself. He certainly refers directly to Shakespeare in the context of the use of cannabis fibre for paper on which Folios were printed.

A 'Shakespeare-Hemp-cannabis (SHC) hypothesis' has been formalised (Thackeray 2025a&b): 'William Shakespeare discreetly smoked stigmatised cannabis/hemp/weed, with a moderate degree of the mind-stimulating compound THC, associated with a source of inspiration for creative writing ("invention in a noted weed" in cryptic wordplay in Sonnet 76), constituting a "Tenth Muse" which "gives invention light (*lux* in Latin)" (Sonnet 38) to supplement the nine muses known to the Greeks'. Marshall's extraordinary engraving (Fig. 1), together with Taylor's poetry, strongly supports the SHC hypothesis and points to the view that cannabis was smoked in Shakespeare's England.'

Acknowledgements

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WORLD ARCHAEOLOGY

Dinosaur tracks in Scotland

It is the site of a dramatic moment in Scottish history. The Isle of Skye's rocky shoreline is where Charles Edward Stuart, known as Bonnie Prince Charlie, arrived by boat disguised as a maid to hide from the English in 1746. But this celebrated claimant to the British throne was not the only one to make tracks at what is now called Prince Charles Point. Some 167 million years earlier during the Jurassic Period, dinosaurs left an extraordinary batch of trackways at the same place. Researchers led by Tone Blakesley, a University of Edinburgh graduate student in palaeontology, have identified 131 fossilised tracks of both meat- and plant-eating dinosaurs in what was a subtropical freshwater lagoon.

The researchers cannot be certain of the exact species that left the tracks, but their sizes and shapes offer good clues. All meat-eating dinosaurs were part of a group called theropods. The ones that made the Isle of Skye tracks were part of a family called megalosaurs. One possibility is *Megalosaurus*, which lived about 100 million years before its distant relative *Tyrannosaurus*, was about 6 m long, walked on two legs and had a mouthful of large serrated teeth. It was one of the first dinosaurs discovered by scientists and, in 1824, became the first one to be given a name. The plant-eaters that left footprints were part of the group called sauropods, known for their long necks, four pillar-like legs, small heads and teeth adapted for consuming vegetation. One possibility is *Cetiosaurus*, about 16 m long. The theropod footprints each measure about 45 cm long with imprints of three toes, pads housing foot muscles and sharp claws. The sauropod footprints are about 50 cm long and sometimes preserving marks from four short and stubby triangular toes. Tracks of other dinosaurs, plant-eating stegosaurs and ornithopods, were found in drier landscapes away from the lagoons. *PLOS One, 26/03/2025*

TRAVELLING HERITAGE IN A MOBILE MUSEUM

Bringing the past to people

Tim Forssman and Justine van Heerden

Museums occupy a crucial space in society. In the 21st century they have primarily two types of roles, functional and purposive (Wood and Rentschler 2003). Museums strive to safeguard cultural heritage (the functional role) while simultaneously informing, educating and entertaining the public (the purposive role). Over time, their appearance, aims, goals and appeal alter according to political changes, societal morality and economic environments (Booth and Powell 2016) and they reflect contemporary values and approaches to the past. Modern museums strive to create spaces that are more accessible, collaborative, diverse and inclusive than they were in the past.

The benefits museums offer are not felt equally by all. Museums as well as heritage sites are not equally accessible to all. Physical barriers such as distance, coupled with social and financial inequalities, significantly limit who can participate in heritage experiences. Surveys consistently show that regular museum visitors typically come from higher socio-economic backgrounds (Hood 1993). In countries such as South Africa, this reality exacerbates historical inequalities, particularly for those living in remote areas, and reproduces socio-political differentiation.

To address this, the Hunter-Gatherer Archaeological Research Project (HARP) developed a travelling museum. Designed as a mobile, interactive heritage experience, it introduces people to local heritage. It accompanies the archaeological team to community engagements, fieldwork visits, classrooms and public presentations, as well as academic gatherings – on two occasions the museum was presented to members of the South African Archaeology Society. Its purpose is twofold: first, to make archaeological heritage more accessible and, second, to test the effectiveness of the display in educating the public and improving access to knowledge about heritage, archaeology and the human past.

Drawing from both theoretical frameworks in new museology and practical design considerations, we argue in this article that mobile museums offer a compelling approach to sharing the past with broader audiences. Any subject matter that has tangible items, such as skulls, animal tracks or science experiments, or can be represented through models or dioramas, have the potential to be the focus of a travelling museum.

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Fig. 1: A – building the museum frame; B – laying out the rock art display; C – setting up the Later Stone Age drawer

Museums, access and 'new museology'

Museums hold important collections and contribute to public education. They play a crucial role in communicating research and science to the public

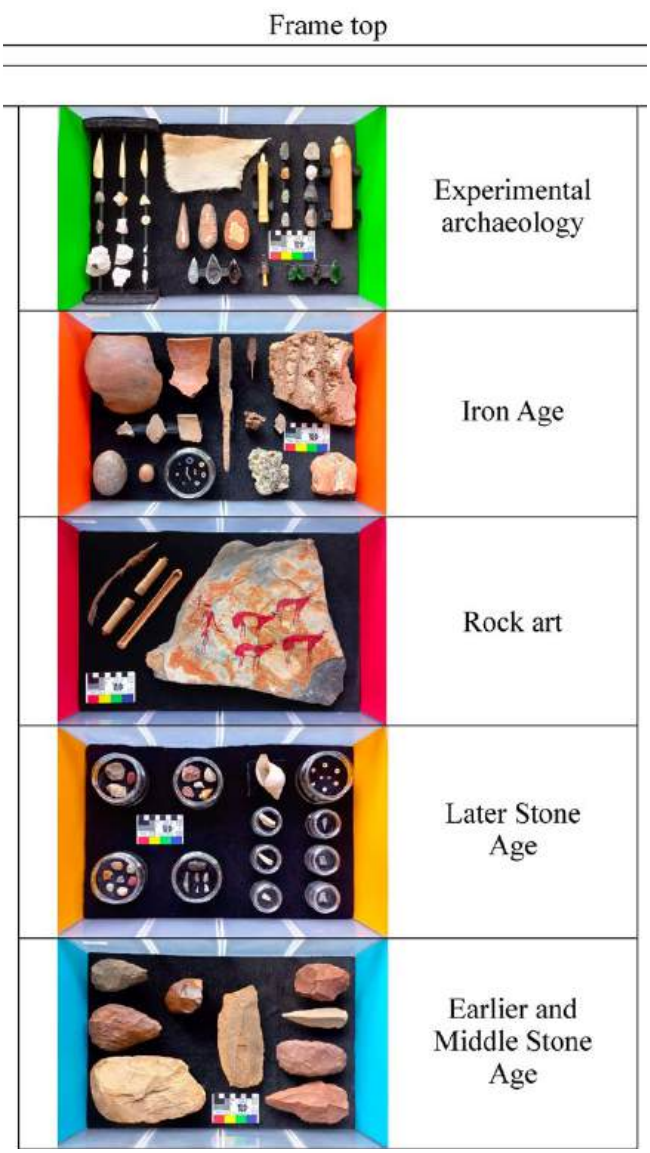

Fig. 2: A schematic of the drawers with photographs of each in their position in the travelling museum

and draws interest to the field. Many museums also conduct their own research, which leads to the meaningful advancement and understanding of cultural and natural heritage, and provides an environment in which findings are safely preserved.

Traditional museums typically rely on static exhibitions, non-tactile displays and interpretive signage. Most commonly, such museums are in urban centres where they have considerable impact. Museology has, however, undergone a major transformation since the 1980s. The emergence of 'new museology' (Vergo 1989) has shifted the focus from object-centred displays to community-centred exhibitions, prioritising inclusivity, co-curation, interactivity and multi-sensory experiences (Boast 2011; Onciul 2015). Museums are now encouraged to serve as contact zones that acknowledge multiple voices and enable audiences to engage meaningfully with cultural material (Marstine 2008). This includes the tailoring of exhibitions to different learning styles, ages and physical abilities (Bitgood 1991; Hein 1998).

Museums face several challenges. Their location can be inaccessible to large portions of the population. In South Africa, where transportation costs are high and heritage institutions are sparsely distributed outside major cities, this restricts access for rural and marginalised communities (Ngcobo 2018; Namono 2021). In many instances, rural communities do not have the means of accessing a museum even though the finds they hold and display are from their home areas. In some cases, artefacts on display may relate directly to their own histories. The challenges museums face do not reduce their significant role in society, but they do beg the question: how else might we curate and present cultural heritage that overcomes some of these issues?

The travelling museum initiative embraces this challenge. It provides an opportunity for decolonial engagement, especially through tactile and conversational learning, reaching people where they live and recognising that heritage ought not only to be displayed behind glass in inaccessible urban institutions.

Precedents for travelling museums

Mobile and travelling museums have a rich history. Emerging prominently in the mid-twentieth century, their aim was to reach people who could not access formal museum spaces (Daifuku 1963; Ševčuk 1966). UNESCO led several initiatives in Africa from the 1960s, developing mobile museums tied to adult education programmes. These focused on themes such as agriculture, health and local knowledge systems (Daifuku 1965).

In southern Africa, Namibia's Ministry of Education and Culture launched a Mobile Museum Service in 1996 with support from the Museum Organisation and Volunteer Service Overseas. The initiative worked closely with schools to enhance curricula and train educators. Botswana developed a similar service. Despite their impact, funding and logistical constraints limited their long-term viability (Nias and Nias 1996). Recent scholarship continues to emphasise the importance of these models, especially in the context of community empowerment and the diversification of museum audiences (Chipangura 2020).

HARP's travelling museum draws from these traditions, adapting them for archaeological outreach in the middle Limpopo Valley. However, its aim differs fundamentally. The intention is not to present archaeological finds in a museum sense but rather as they relate to a research project, in this way promoting archaeological information as well as science communication.

The HARP travelling museum is grounded in ongoing

research in the middle Limpopo Valley, near the confluence of the Shashe and Limpopo Rivers. This region has a deep and complex archaeological record, including evidence of forager lifeways, rock art records and the appearance of Iron Age societies that culminated in the state-level polity of Mapungubwe (Huffman 2009; Forssman 2020).

Prior to the arrival of farmers, around 2000 years ago, foragers existed alone on the landscape. These groups left behind stone and bone tools, ornaments and rock art (Kuman et al. 2005; Van Doornum 2008). Though their material culture changed in later periods, archaeological evidence suggests sustained forager presence even during times of social upheaval and transformation. However, foragers have been largely omitted from mainstream histories of the region (Forssman et al. 2023). Hence HARP, is studying several forager sites to examine cultural sequences and the relationship foragers had with farmer societies.

Fig 3: A series of engagements where the museum has been used: A – Children in the Wilderness; B – University of Mpumalanga Community of Practice seminar; C – South African Archaeology Society Mapungubwe tour; D and E – Mpumalanga Heritage Society

It is not clear when a herder presence appeared, but this may be around 2000 years ago. What is widely considered their rock art – red, finger-painted geometric forms – have been identified in the valley. In addition, fine-lined forager paintings of fat-tailed sheep have also been discerned. These are significant because the sheep came from the north. Were they brought into the region by herder groups, or were they traded by herders into forager society? Other than rock art, there are no obvious cultural indicators in the buried sequence that suggests cultural change at the time. Clear markers of a new cultural group moving into the region only appear later when farmers first settled the region.

This occurred around the mid-first millennium AD, but it is unclear if they settled in the middle Limpopo Valley since no villages from this period have been identified. However, by AD 900, farmers producing and using Zhizo ceramics moved into the valley. It is widely thought that this was for the purpose of trade, specifically in ivory, but the region hosted a number of other advantages that would suit farmer habitation. Over the following century, local developments led to the establishment of two important settlements, Schroda and Leokwe Hill.

Around AD 1000, Leopard's Kopje ceramics appear in the valley. Groups producing these ceramics, which at first was the K2 facies, pushed many Zhizo users from the region to the west. Those that remained changed their ceramic facies to incorporate certain decorative features of the K2 facies and are archaeologically known as Leokwe. As society increased in socio-political complexity, K2 users occupied upper tiers and Leokwe users appear to have fulfilled a lower status, possibly with foragers in the hierarchy as well. Continued changes, the accumulation of wealth and the growing importance of political authority precipitated the appearance of Mapungubwe by c. AD 1220. This was southern Africa's first state-level society.

The travelling museum: design and pedagogy

The HARP project seeks to explore the roles of forager groups in trade, contact and settlement histories, and the travelling museum was identified as a key tool in disseminating this more inclusive narrative to public audiences. The museum was built on discovery-based learning principles (Hein 2006). This approach assumes that learning occurs through active engagement (discovery), where participants construct their own understanding through interaction with objects and ideas. This shaped the way that the design fostered engagement between the viewer and the archaeology (Fig. 1). To achieve this, several requirements influenced the final product:

- Mobility: the museum had to be lightweight and

compact enough to be transported in a vehicle by two people.
- Multi-period content: it needed to cover the Earlier Stone Age to the present.
- Interactivity: visitors should be able to touch, hold and interact with objects.
- Ethical display: artefacts were only used if they lacked provenance and were voluntarily submitted by landowners or collected with appropriate approvals.
- Modularity: the content should be swappable to accommodate different audiences and research developments.

The result was a five-drawer system with each drawer representing a different archaeological period Their sides included colour panels to illustrate stratigraphic layers. In Fig. 1, the lowest drawer is the oldest, with each one above younger than its predecessor. When a presenter engages with a drawer or period, it can be taken from the frame and placed on top for all to see or passed around. The museum is also designed for both sighted and visually impaired users, encouraging touch, weight perception and textural understanding. The narrative that accompanies the drawer-by-drawer presentation weaves the periods together and traces links between each, telling a story of change, social contact, increasing political complexity and ultimately the role foragers played in this history.

The drawers

The themes of the five drawers (Fig. 2) are the Earlier and Middle Stone Age, the Later Stone Age, Rock Art, the Iron Age and Experimental Archaeology. Artefacts such as hand axes, blades, cores and scrapers from the Earlier and Middle Stone Ages are included to provide context for the middle Limpopo Valley's deep archaeological sequence. The Later Stone Age drawer includes artefacts such as microliths, adzes, animal bones, ostrich eggshell beads, while the Iron Age drawer presents ceramics, iron arrowheads, glass beads and fragments of grain bins. These two drawers demonstrate HARP's overall focus, namely the interactions between forager and farming communities.

These interactions are further highlighted in the Rock Art drawer where the importance of sheep on this landscape is discussed with the use of a reproduced rock art panel that shows fat-tailed sheep and a herder. The drawer also includes recreated tools such as a brush and ochre and paint holders that were used to produce fine-lined rock art. The final drawer, Experimental Archaeology, discusses the use of experimental research to study the past. It showcases the results of an experimental use-wear study conducted by Sherwood and Forssman (2023) at Little Muck Shelter, one of the sites excavated by HARP. The drawer indicates the stages of production for bone points and ostrich eggshell beads, the hafting and use of stone tools and arrowheads, and includes a demonstration of bone pressure flaking.

Community engagement and educational impact

Since its launch, the travelling museum has accompanied HARP researchers to schools, community workshops, field visits and university events (Fig. 3). In these settings, the museum has proven to be a powerful educational and outreach tool. Engagements are typically conversational, with facilitators guiding participants through the displays, encouraging questions and offering context. One of the museum's greatest impacts is its tangible aspects. Being able to touch archaeological finds, feel the edge of a stone tool, run fingers over ceramic decorations or hold tiny glass beads is very different to staring at them from the other side of a glass pane. Doing so, scaffolds one's understanding of heritage through enhanced interaction and discovery of the item's characteristics. It has a lasting effect on participants.

Feedback has been overwhelmingly positive. The Experimental Archaeology and Later Stone Age displays are the most popular among participants, the majority of whom agreed that the travelling museum increased their access to heritage in the middle Limpopo Valley. One participant explained how the museum is an exciting alternative to taking school children to cultural museums in the light of transportation costs and entrance fees. The hands-on experience offered by the museum has pushed it beyond the normal museum experience, allowing participants to learn and absorb information more effectively. This aspect provides the opportunity to not only understand history but experience it as well, allowing participants to place themselves in the shoes of those who came before them. In one of the sessions, a participant stated that they had learnt more in an hour with the museum than in multiple formal museum visits.

Five learning outcomes were identified in the feedback of participants. These outcomes include:

- An increase in knowledge gain: participants not only learned about forager communities and their artefacts but also about archaeology, archaeological methods and the importance of the field.
- Overall positive feelings associated with the experience: participants found the museum interesting and enjoyable, with a few being inspired to create their own travelling displays and recreate some of the artefacts they had viewed. They also made personal connections to the glass beads, iron spearhead and animal hide that are used in their own communities.
- A change in attitudes, values and awareness of different communities: the museum enabled participants to gain insight and awareness about

forager communities, transforming the way participants think about them and helping them to realise that foragers were hardworking, solution-orientated and not all that different from us.

- Change in actions and behaviours: participants felt inspired by their experience with the museum to further broaden their knowledge about forager communities and archaeology, with one participant aiming to adopt the same solution-orientated attitude, problem solving skills and hard work as forager communities.
- Increase or development of skills: their experience with the museum enabled numerous participants to identify archaeological artefacts and led to many being more attentive to their surroundings.

Fig 4: A collage of images from the travelling museum

The initiative also serves as a valuable teaching resource for archaeology students. It introduces learners to material culture, stratigraphy and interpretive methods in a tangible, tactile format. This aids to scaffold learning and crossing-educational thresholds by helping to reduce the cognitive load needed to imagine or visualise the artefacts being discussed because they can engage with them directly. It also acts as a bridge between researchers and the communities in which they work, facilitating dialogue and mutual understanding.

Challenges and considerations

Despite its success, the travelling museum is not without challenges. Construction costs, while moderate, may still be prohibitive for some projects. Transportation, accommodation and presenter time need to be budgeted for, especially in rural or remote settings. Not everyone has the technical skills to build a custom frame, although cheaper alternatives (eg using suitcases or plastic crates) could be explored.

Another concern is durability. Although the artefacts are either replicas or unprovenanced surface finds, wear and tear is inevitable. To mitigate this, the team monitors the condition of the artefacts and replaces items when necessary. Additionally, while interactive displays offer clear benefits, they are labour-intensive and require a presenter to ensure the experience is meaningful.

Finally, because the museum is portable and can be tailored to its audience, it is ideal for small to medium-sized groups (under 30 participants). Larger groups require additional visual aids, such as posters or slides, or a larger museum display.

Conclusion

The HARP travelling museum has proven to be a dynamic and impactful way to engage people with the past (Fig. 4). It exemplifies the ideals of new museology by prioritising inclusivity, interactivity and public participation. It brings archaeology to communities that may otherwise never experience it and helps to reshape public understanding of the region's past, in this case the neglected role of forager groups. As a tool for education, decolonisation and outreach, the mobile museum helps bridge the gap between research and the public. It encourages a tactile, experiential approach to heritage and fosters stronger relationships between archaeologists and the communities with whom they work.

Looking forward, we hope this model can inspire similar initiatives elsewhere. While logistical hurdles remain, the benefits of greater access, enriched understanding and more inclusive narratives are well worth the effort. It also helps immensely with science communication, an important yet often vexing task that most scholars face. However, for all its value, the travelling museum is by no means a tool to replace traditional museums. As repositories of heritage, where finds can be studied, preserved and safe-guarded for future generations, the museum is irreplaceable.

For more information on HARP, visit www.harproject.co.za or follow us on Instagram and Facebook.

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The South African Archaeological Society

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

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

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