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DOING HERITAGE IN SOUTH AFRICA: DOUBTS AND DILEMMAS

The articles that follow by John Wright, Amanda Esterhuysen and Ndukuyakhe Ndlovu are based on addresses they gave at a discussion under the title above held on 18 May 2013 at Origins Centre, University of the Witwatersrand. Cynthia Kros, who was in the audience, was subsequently invited by the other authors to write her article as a commentary on the issues they had raised.

Heritage as feel-good history

John Wright

In my experience, South Africa had very little by way of heritage before the mid-1990s. It had a history, certainly, and a contentious one too, judging by the amount of arguing about it that took place in public circles. It also had a lot of 'tradition' that political leaders of all shades frequently harped on about. But hardly anyone spoke about heritage outside places like Cape Town, with its self-fostered reputation as the 'Mother City' and the 'Tavern of the Seas', or Pietermaritzburg, with its red-brick colonial buildings and twee Victorian cottages. One never heard the word in Johannesburg: it was too new and brash and ugly to have a heritage.

Then in 1998 I happened to travel from Pietermaritzburg, where I lectured in history at the University of Natal, to attend conferences in Johannesburg and Cape Town. I discovered that numerous academic colleagues in these and other centres were hard at work developing new courses in what was coming to be called heritage studies. They were riding a new wave of public discussion, set in motion largely by the first post-apartheid government, about the need to create a new national heritage for South Africa, one that sought to bring the country's communities together, whereas history as propagated under apartheid had sought to separate them. In education circles, and in business circles too, the word was rapidly catching on.

So, suddenly South Africa was discovering that it had a heritage or, as many people saw it, numerous different heritages. Since the later 1990s, the whole heritage industry in this country has grown enormously, with government departments and official agencies at all levels, local communities and businesses promoting it in different ways. Policy-making bodies, schools, tourist offices, museums, art gal-

In 2010 Nomandla Nodola opened a museum in her home at eGugwini near Harding in southern KwaZulu-Natal. It celebrates the history of the ruling house of a section of the Nhlangwini people, with which her family has been closely associated for nearly two centuries. On the wall behind her is a map of the Nhlangwini country, which she drew in ink on a tablecloth inherited from her mother.

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OTHER FEATURES IN THIS ISSUE

leries and business enterprises ranging from one-person craft markets to billion-rand corporations were all involved. And for different purposes – to promote 'national unity', to stimulate a greater public interest in the past, and to find new opportunities for turning a commercial profit. Today 'heritage' is accepted in public discussion in this country as part of the natural order.

But what do we mean by heritage? The common notion is that it is 'what we inherit from the past', whether by way of culture, beliefs, memories or physical objects. Usually it is seen as having some sort of inherent 'value', and therefore as needing to be preserved for the future. This notion is not 'wrong', but it does not take us far enough. It does not indicate that heritage is not simply inherited from the past, and preserved as it was in the past, but constantly shaped and reshaped to suit purposes and needs in the present. And it does not indicate that the 'value' of heritage is not inherent but is imparted by the people who need it in the present.

Heritage, then, is the product of a particular way of looking at the past in the present or, to put it another way, a particular way of 'making pastness'. It is closely related to the ways in which communities and organisations of all kinds make pasts for themselves; it is less closely related to the specific way of making pastness that we call academic history. Academic history is committed, nominally at least, to 1) engaging with the totality of the evidence that bears on the topic under investigation, 2) asking critical questions about the evidence, and 3) engaging in open discussion of differences of opinion about how the evidence can be interpreted. Heritage-making, by contrast, is not particularly interested in these processes. Its prime concern, in my view, is quite different, namely to highlight those elements of the past that are seen in the present as particularly deserving of celebration or commemoration.

Celebration and commemoration are acts of remembering. Through them specific groups of people seek to strengthen ties of solidarity among themselves or, in other words, to establish themselves as 'communities'. These groups range very widely in size and nature, from families and church congregations to soccer fan clubs, trade unions, political parties, nations, ethnic groups and religious orders. In shaping their specific heritages, they, or more accurately their leaders, select specific events or personalities from the past as worthy of celebration or commemoration in stories and in more or less formal rites, ranging from putting a photograph of a forebear on the wall to erecting massive public monuments to figures of the past who are seen as heroes. Essentially, the leaders, together with their communities, are concerned with creating a past they can collectively feel good about.

Building solidarity round what is proclaimed as a shared past means minimising or altogether eliminating open criticism from within the community. Its heritage becomes like a faith and criticism like blasphemy – it strikes at the heart of the faith and threatens to undo the community of the faithful. If you have doubts and criticisms about the faith, it suggests that you are not a true believer and do not belong in the community. The emphasis on faith varies widely through different kinds of community. In small, face-to-face communities, like families, it can be leavened by a sense of humour; at the other extreme, in ethnic nationalist communities or in religious organisations, lack of commitment to a proclaimed heritage can be punishable by death.

Obviously, different communities will have different heritages. But in all of them, heritage works to create a distinction between 'us' and 'them'. For many people the creation of a sense of belonging to a particular group is very important, but in some cases this can spill over into a fearful and angry exclusion of people deemed to be the 'others', the 'enemy'. Emphasis on a common heritage can work to bind certain people together to resist oppression at the hands of others, but it can also work to bind people together into becoming oppressors of others.

The appeal of heritage it not based primarily on reason; it operates largely through the emotions. In the modern world much of its appeal lies in the realm of nostalgia, a strong desire for a return to a kind of life that is seen as having been simpler and more secure than the present. But it does not always have to be too serious: in today's commercialised world heritages can also be constructed and packaged to highlight forms of otherness that will be seen by tourists as being 'exotic' without being threatening. 'Heritage' becomes a marketable commodity that is designed to be sold to consumers, whether in the form of international cruises or craft items offered for sale at the side of the road.

In seeking to understand heritage the question of who does the constructing, the shaping, the deeming, the deciding of what it is, is always important. Heritage always has a politics, whether in the form of parliaments passing laws to regulate it, or grandparents telling the 'true' family history in the family circle. As citizens we are likely to be more thoughtful about our 'own' heritages if, even as we embrace them, we are alert to the issue of who is asking us to do the embracing and why.

Heritage and politics in South Africa

Amanda Esterhuysen

The formulation of heritage serves political ideals and agendas. In South Africa it has been used to promote

notions of unity, a sense of belonging and significance, but often in a divisive manner and at the expense of one group or another. Following the South African War the need to construct a coherent national sentiment and a sense of civic responsibility among the white middle class lent itself to a particular 19th century European discourse of heritage that naturalised the ideas of *patrimoine* and conservation (Coombe 2009: 396). From the early 1900s through the height of Afrikaner nationalism, resources were used by the dominant classes to create and control popular memory.

This collective historical memory was formed through repeated acts of commemoration that made the past familiar and authentic. The physical landscape was slowly embellished and transformed by monuments, graves, and place and street names, and this growing sense of white middle class pride was fortified through public holidays, museum displays and film, popular literature and school history textbooks (see Hofmeyer 1993: 167). For the most part these inspirational messages emphasised the enormous sacrifice made by European forefathers to suppress and civilise the savage African landscape, or celebrated European achievement in art, architecture, science and industry. It is no surprise that by the 1990s 95 per cent of national monuments celebrated European achievement and explicitly alienated Africans from the historic landscape.

After 1994 the Minister of Arts and Culture appointed a task team to formulate a new strategy to redress the heritage imbalance. Mbeki (whilst vice-president) began to build an African nationalism around early cultural developments in Africa, the struggle against colonialism and liberation from white oppression (Ferguson 2006:116). The landscape, histories, holidays and monuments were reworked to capture and reflect the pride associated with early African technical advancements, the rise of civilisation, and the struggle for freedom and democracy.

A new National Heritage Resources Act was promulgated in 1999 to promote and protect South Africa's heritage. This legislation stressed the role of heritage in healing and providing material and symbolic restitution and redress. It incorporated previously neglected oral traditions and made provision for community-level participation by creating a three-tier system for the recognition of local, provincial and national heritage. The new act promoted cultural pluralism and a multi-vocal participatory process. The South African Heritage Resources Agency (SAHRA) was appointed to mediate and manage these debates, and to promote a new and vibrant South African heritage.

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The political and highly complex nature of the social, cultural and natural heritage of the new South Africa warranted and required the application of sophisticated instruments to detect, assess, nominate and protect heritage. Heritage authorities would be required to take cognisance of socio-economic inequality and the diverse roles that heritage might come to play in different circumstances, especially where officially endorsed public memory discourses ran counter to those recollected at the local level. Further, the acknowledgement and celebration of multiple kinds of heritage necessitated proactive and integrated planning within many areas of government and at the municipal, provincial and national levels. However, the integration of heritage in local and provincial-level structures never took hold, and rather than incorporating heritage into town or city planning and development, the heritage regulations were trimmed, streamlined and simplified to make assessment processes less cumbersome and inhibiting of development.

Heritage uncelebrated: skeletons washing out of a cemetery that became exposed when the Crown Mine's mine dump in was reclaimed

Rather than build a strong and rich heritage following in South Africa, the three-tier system has served to weaken and fragment decision-making. A sound and thorough process is hard to achieve if assessors, permitters and monitors sit in different provinces and at different levels of government. Equally, if databases containing documentation about heritage sites, claims or oral records that are the key to the effective management of heritage are housed separately and at different levels of government, the records of previous decisions go unnoticed and the cumulative impact of development go unchecked.

In my opinion, a weak heritage sector suits the government's economic aspirations. It allows mining and development to go unchecked. Nowhere is this more evident than in Johannesburg, the economic hub of South Africa, where historic buildings are demolished or burnt down overnight with little or no reprisal. While this could be seen as a subtle move to rid Johannesburg of its colonial facade, it does not explain the lack

of any effort to remove or stabilise the graves of African miners that were exposed in 2010 after the Crown Mine's mine dump was reclaimed. The intentional erasure of this graveyard, an act that was supported and encouraged under apartheid, is indefensible. But it is equally unfortunate that human remains are being allowed to erode out and disperse, and that a half-hearted effort is being made to commemorate the large migrant work force that helped to build Johannesburg.

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Some of the challenges of heritage management in South Africa

Ndukuyakhe Ndlovu

Heritage of any kind gives individuals a sense of identity and belonging. As a result, heritage should be considered an important part of human existence.

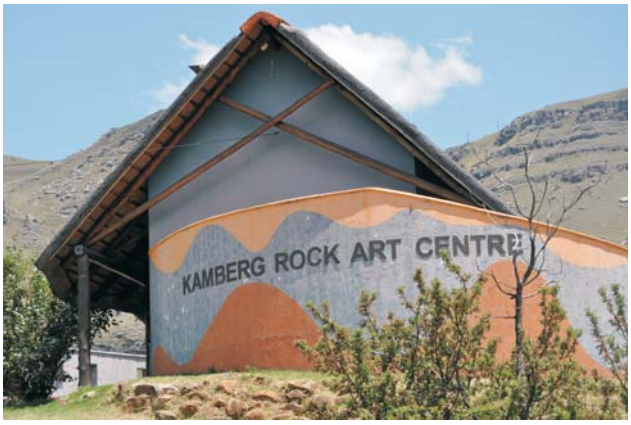
Who determines the level of importance is a factor of power. Heritage also means different things to different constituencies and emanating directly from this is the fact that what may be considered as important heritage by one group of people may not necessarily be seen in the same light by another group.

I shall not discuss the definition of heritage as it deserves much broader consideration. Instead, I shall focus on the management approach promoted by our heritage legislation and the issues of heritage ownership in order to address some of the pertinent challenges of heritage management in South Africa.

South African heritage legislation

The country has had heritage legislation for over a hundred years. The first piece of legislation, the Bushmen Relics Act, was promulgated in 1911. We should critically evaluate the success of heritage legislation in the light of this long record.

Considering the number of heritage contraventions and successful prosecutions recorded over the years, we should be concerned about the effectiveness of this tool for the successful management of our rich and diverse heritage. Heritage practitioners can make the difference, but I would argue that at present they are not making enough progress to bring about more effective enforcement of the heritage legislation. Common excuses that are often given, not only in South Africa but elsewhere, mainly revolve around the lack of financial and human resources.



Kamberg Rock Art Centre

While there may be an element of truth in this, I argue that more can and should be done to improve the enforcement of heritage legislation in South Africa. I do not foresee a day when heritage managers will argue that they have enough money and staff to deliver on their mandate. Therefore, the best must be done with current resources. My critical view on the implementation of heritage legislation should not be misinterpreted as completely denying the significance of heritage legislation. Rather, we should be critical of how ineffectually heritage legislation has always been used. Failure to improve on this situation will result in a continuation of the trend that has characterised South Africa's heritage landscape for a long time.

The management of South Africa's rich heritage, particularly the built environment, has been kept within the urban centres of the country. While the destruction of a building considered of significance will attract interest in urban areas, the same is not true in townships. I see a continuous change taking place in my township even though it has buildings dating back to its development under the apartheid regime.

The historical significance of these buildings is not protected by the active implementation of heritage legislation in these areas. A quick check on buildings of provincial or national significance in Gauteng shows that there is only one property within Soweto that has been afforded heritage status. It is no surprise that this is the former home of Nelson Mandela. This indicates that there is a great need not to localise the implementation and subsequent enforcement of heritage legislation within selected areas.

Besides the obvious bias towards heritage management to selected areas, another challenge concerns

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the management paradigm promoted by heritage legislation. There is a need to consider critically a dichotomy between physical and spiritual management approaches. To illustrate the nature of my concern, I shall discuss two case studies, both from the uKhahlamba-Drakensberg Park, South Africa's second World Heritage Site.

The first study relates to the making of 'new-age' rock art at a shelter in the northern part of the park. While conducting research for my Masters in 2003, I came across a spiritual healer who was using a painted rock art site for her ritual activities. The paintings she made could easily be classified as graffiti. But should they be seen in that destructive way or are they not part of the process of managing the site and appreciating the spiritual significance of the paintings that were made there hundreds of years ago?

The second case study comes from the Kamberg. During the official opening of the Kamberg Rock Art Centre in 2002, Duma clan members officially expressed an interest in performing annual ritual ceremonies at Game Pass Shelter. Research has revealed that this was not the first time such ceremonies were held there. This request was warmly welcomed by the then premier of KwaZulu-Natal Province, Dr L Mtshali, and the late chief executive of Ezemvelo KwaZulu-Natal Wildlife, Mr K Mkhize.

However, it soon became clear that provincial heritage legislation and the relevant policies of Amafa aKwaZulu-Natali were not fully supportive of the intentions of the Duma clan members. For instance, the policy required that a custodian be allowed to supervise the ritual ceremony to ensure that participants did not partake in activities that were deemed unacceptable to the management of the rock art. In the absence of trained custodians within the Duma clan, this person could only be an outsider, but such infiltration went against the traditional ways of conducting the ceremony. Members of the clan had to accept this condition even if it did not meet their approval as it was the only way to reach a compromise with Amafa aKwaZulu-Natali.

Furthermore, they were not allowed to burn anything nor dance while inside the shelter. It is obvious that this management approach supports the bias towards the physical aspects of the site, and anyone who has an insightful understanding of traditional ritual ceremonies will see this as a significant barrier. For the officials of Amafa aKwaZulu-Natali it was more important to safeguard the physical appearance of the paintings for future generations than to satisfy the spiritual interests of the living.

The relevant question that needs to be considered is on what basis does the spiritual management of a site become less important than the physical management of the site? How appropriate is it that we should talk about future generations when the current generation cannot be allowed to practise their ritual activities in the way they deem necessary? As a traditional, conservatively oriented man and an Africanist archaeologist, I am tempted to argue that the concerns of someone living today are more important than those of a person who will live tomorrow. I believe it is important to question how I can prepare for tomorrow when my needs of today are not taken care of. I am yet to come across someone who will volunteer to go hungry today in order to save money and food for future generations.

Equally so, it is important that the person living today, who holds strong views about the traditional means of managing heritage sites, is afforded the opportunity to act in the way they deem necessary. However, considering that our heritage legislation and accompanying policies are favourable inclined towards the physical identity of heritage, this has not been possible.

New-age rock art from Mnguni Shelter, northern uKhahlamba-Drakensberg National Park

Some people will argue that the current national heritage legislation promotes living heritage, adding that this is a significant improvement on previous legislation. While there may be an element of truth in this statement, the reality does not necessarily conform to legislation that promotes living heritage. Transformation of our management approaches to heritage management should not only be theoretically but also practically implemented. The case study indicates that his is currently not the case.

Perhaps one of the biggest challenges in the management of heritage, besides the implementation

and enforcement of heritage legislation, is the ownership of heritage resources. According to the national legislation, heritage resources are owned by the state. This means that the state and its learned advisors have the power to decide on the heritage that is to be protected and how it is to be managed. To me this is the main deciding factor in as far as the heritage management approaches to be applied. There is a need to address this challenge.

In conclusion, we need to implement significant improvements to the management of heritage in our country. The current one-size-fits-all approach to implementation does not work. There is a need to have a less rigid approach. This may sound simplistic, but I do not intend it to be so. There is, therefore, a need to find common ground and see how the challenges discussed in this short contribution can be addressed.

Heritage? What heritage?

Cynthia Kros

John Wright starts off by expressing surprise at the sudden appearance of 'heritage' in South Africa in the 1990s. I do not think it was all that sudden (also see Ndukuyakhe Ndlovu's account). I would argue that it had been gathering momentum for quite some time. If one reads Sara Byala's (2013) recently published monograph on the Africana Museum/MuseumAfrica, it is clear that way back in the 1930s individuals like John Gubbins, the founder of that museum, undeterred even by losing most of his collection the first time round in the great Christmas Eve fire that ravaged Wits University's Central Block where it had been stored, attached importance to something that equates to heritage.

The destruction of his books only drove Gubbins to new collecting heights and he embarked on a far-flung voyage to track down as many items of Africana as he could find. The publicity generated by the tragedy and his stoical acceptance of it helped to soften the hearts of donors. But it was not that Gubbins was simply an eccentric Englishman who had got into the collecting habit while spending too much time alone on his farm in Africa. According to Byala (2013), Gubbins' vision, later caricatured through its unwitting association with apartheid ideology, was to expose the public to a diverse range of Africana, enabling an appreciation of the 'three-dimensional' nature of South African society, in contrast to the more common 'binary' representation. Gubbins was a popular historian and philosopher. Today he would have been either a newspaper columnist (as he was, to some extent) pontificating on current affairs, or a heritage specialist.

Heritage – on reflection

I wonder if John Wright was ever subjected to the history textbook we English-speaking children in the old Transvaal had to plod through at high school, called *The Legacy of the Past* (Boyce et al 1973). I only realised quite how obnoxious the book was after I had been exposed to the tremendous debates around the Mfecane generated by Julian Cobbing's (1988) famous objections to Zulucentric characterisations of that period. I went back to *Legacy of the Past* and found the Mfecane chapter (with Cobbing's derisive comments about 'mfecane' being a word that was invented by conspiratorial settler-historians still ringing in my ears) and found it offensively littered with skulls and bleached bones that suggested a debt to Ritter's (1955) *Shaka Zulu,* rather than to the archival sources Boyce claimed.

What was the legacy of the past bequeathed to us? I wonder what Boyce would have said. I suspect that he would have been shocked if we had found it difficult to distinguish his 'legacy' from the one that Afrikaans-speaking textbook writers were conferring on their readers to impress upon them their unique destiny and contingent responsibilities in Africa. There is, of course, a rich scholarly literature, including the work of Dunbar Moodie (1975), Dan O'Meara (1983), Leonard Thompson (1985) and more recently Leslie Witz (2003) that demonstrates the importance of popular history, pageantry, commemoration and historical re-enactment – all things we would probably name now as heritage – for strengthening the appeal of Afrikaner nationalism and shoring up National Party rule, as Amanda Esterhuysen remarks. It has only occurred to me while writing this article that the real problem with the Boyce textbook lies precisely in its title. Boyce never doubted that there was only one past, or that we should do anything other than receive its 'legacy' with due solemnity. But we must have registered this only subliminally.

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Talking about the role of heritage in mobilising Afrikaners behind the purified strain of Afrikaner nationalism, reminds me of Elizabeth Delmont's (1993) deconstruction of the symbolism of the Voortrekker Monument. She presented the draft of her paper entitled: 'Myths, monuments, museums: new premises?' at a conference I had a hand in organising for the Wits History Workshop in 1992. The topic was suggested by Carolyn Hamilton who had a good head for the winds of change blustering about us in the early 1990s and was in touch with experiments in changing museum display and representation, including those that had been carried out in the orphaned wing of the Africana Museum in Newtown over the previous decade. Byala (2013) has a useful account of these.

Legacy of Retief's death. Part of a frieze at the Voortrekker Monument

At the 1992 conference we listened to papers like Nigel Worden's (Worden 1996) about how professional historians were insisting on inserting alternative histories into the Victorian kitsch of the Cape Town Waterfront, and we debated about what should be done about the old monuments. During the next 20 years, members of the History Workshop went on to write several commissioned community histories. Scholars in other centres often tended to focus on the new memorialising strategies that were emerging and on the production of knowledge beyond the academy.

Ciraj Rassool (2000), drawing on his experiences of working with the community on the creation of the District Six Museum, called on historians to wake up and take cognisance of the fact that the important contests over historical knowledge were happening around heritage sites. He cites John Wright as one of the prescient academics who could see that there was value in investigating new ways of thinking about and engaging with the past (Rassool 2000, 4).

But I suppose Wright is highlighting the novelty of the word 'heritage' in the latter 1990s. In South Africa it is very much associated with the Heritage Resources Act cited by Amanda Esterhuysen, who sets the scene well of a landscape groaning under the weight of commemorative architecture. The task of the act was to break the mould of what had come to be considered worthy of preservation and protection, which tended to reside in the built environment and was almost purely a product of colonial or apartheid design.

David Bunn (1999) wrote a vivid chapter on the 'reluctance' of the old monuments to make more inclusive gestures. The concept of 'heritage resources' embodied in the act was supposed to make allowance for calculations of value and significance that were not dependent on tangible elements of the past. There is much to praise in the act, but Ndukuyakhe Ndlovu points to how unevenly its benefits have been distributed and how insensitive its agents have remained to 'spiritual' aspects of heritage. As Esterhuysen explains, the effective implementation of the act requires sophisticated apparatus and a level of horizontal integration that have never materialised. What is shocking about her observations is her sense that the resultant 'weak heritage sector' suits a government that is unwilling to check rampant development, and the callous disregard for human life exhibited all too often by the mining sector. She leaves us with the poignant image of the skeletons of migrant workers eroding out of mine dumps. Nobody seems to care much to own this legacy of the past.

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A GLIMPSE INTO THE MINDS OF THE MALOTI-DRAKENSBERG SAN

Sam Challis, David Lewis-Williams and Mark McGranaghan

Readers of *The Digging Stick* were doubtless interested to see John Wright and José de Prada-Samper's (2013: 5–8) announcement of a project with which they are associated. Their group plans to study and contextualise Joseph Millerd Orpen's seminal article that appeared in 1874 in *The Cape Monthly Magazine*, which gives information that the colonial administrator obtained from Qing, a young San man who lived in what is now southern Lesotho.

Readers may like to know that Orpen's entire article has recently been republished and is now readily available for all to read in hard copy or on line (McGranaghan et al 2013; sahumanities.org.za). In preparing the text for this republication we compared the version in *The Cape Monthly Magazine* with Orpen's manuscript that is preserved in the South African Library, Cape Town, and that one of us consulted when writing *Believing and Seeing* in the 1970s (Lewis-Williams 1977, 1981).

We added paragraph breaks and some explicitly tentative headings to make the rather dense text easier to read. Orpen's original words are, however, intact. We also included Wilhelm Bleek's appended remarks on Orpen's work and further comments from his and Lloyd's 1875 and 1889 reports to the Cape Parliament. To situate these texts, our publication starts with a short summary of the considerable amount of research that writers have done on Orpen's article, its context and the role it has played in developing an understanding of San rock art and mythology.

Wright and de Prada (2013: 6), however, claim that Orpen's article 'has so far been given little by way of … intensive critical scrutiny and historical contextualisation' and '[m]any scholars have tended to take the text at face value'. They add that the article is 'frequently raided for factual information on Bushman art and mythology in general, with little appreciation of the extent to which its content may be specific to time and place'.

These remarks give a seriously wrong impression. While we welcome the Qing and Orpen Project, we feel a need to draw attention to a few of the numerous publications that have indeed been at pains to contextualise and analyse Orpen's article. Far from there having been 'little … intensive critical scrutiny', there has been a long and developing tradition of research on the context and content of the article.

Over four decades ago the rock art researcher Lucas Smits led a pioneering expedition to southern Lesotho to follow the route that Orpen's party took through the mountains and to locate the painted rock shelters that he visited and illustrated (Smits 1973). His valuable article includes a copy that Patricia Vinnicombe had earlier made of the now-famous and much reproduced Sehonghong paintings (Wintjes 2011). Vinnicombe (1976: 70, 103, 336, 337) herself was, of course, fully aware of the limitations of Orpen's record and the inaccuracy of his rock art copies, which she explicitly compared with her own.

Fig. 1: Joseph Orpen's copy of the much debated Sehonghong rain-making scene

At about the same time, one of us provided two assessments of the historical circumstances in which, on the one hand, Wilhelm Bleek and Lucy Lloyd and, on the other, Orpen worked (Lewis-Williams 1980; 1981: 31–34; originally 1977: 82–93). Somewhat later, Pieter Jolly (1995) continued this tradition and 'revisited' Melikane and Sehonghong shelters as part of his revisionist approach to San history and 'symbiotic' contact with Bantu-speakers. These four publications alone begin to show that, since at least the early 1970s, Orpen's text has not been simply taken at face value and uncritically 'raided'.

Over the last three decades numerous detailed discussions of the specific words that Qing used (or rather as Orpen reported them) and the tales he told have been undertaken (e.g. Lewis-Williams 1980, 2003, 2010, 2013; Challis 2005; Challis et al 2013). Furthermore, Peter Mitchell (2009: 19) suggests, probably rightly, that while the myths that Orpen recorded have long been recognised as summaries made in response to the work that the Bleek family

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was doing in Cape Town, Qing's observations on the paintings were recorded in English but 'apparently verbatim' – at least to a certain extent.

Importantly, the relationship between Orpen's article and other sources of information on the San, such as the Bleek and Lloyd Archive and the San groups still living in the Kalahari, has been a focus of interest. Indeed, the differences and – perhaps surprising – parallels between the 19th century sources and the more recent Kalahari San groups have been identified and explored (e.g. Lewis-Williams 1980, 1981, 1992; Guenther 1989, 1999; Biesele 1996; Bank 2006: 304–311). The sources have not been thoughtlessly conflated.

A decade ago, one of us created a book, *Images of mystery: rock art of the Drakensberg* (Lewis-Williams 2003), around Orpen's life and prominent political career, his expedition and his record of Qing's myths and remarks on rock art images. The relationship between Orpen and his military companion on this trip, James Murray Grant, is evident from the diary that Grant kept during the expedition and on which *Images of Mystery* draws. Taken together, the two men illustrate the intellectual historical circumstances in which Orpen worked:

'Their very different attitudes to indigenous people represent points of view that have coloured approaches to San rock art as well as to southern African history in general. … Again and again, Grant refers to the local people in language unsuitable for quotation and which Open must have found offensive if Grant used it outside his journal - as he probably did. On the other hand one must not forget that Orpen was, despite his support of the Sotho [in disputes with colonists], an imperialist. His attitude to indigenous people may have been more positive than Grant's, but he still did not believe that they were capable of governing themselves' (Lewis-Williams 2003: 19).

Images of Mystery also gives an account of what is known of Qing's own fractured life and compares that with the better-known, but equally tragic, lives of the /Xam San informants with whom Bleek and Lloyd worked (Lewis-Williams 2003: 20–25; for biographies of the /Xam informants see Deacon 1996; on the historical context and method of recording the Bleek & Lloyd Collection see Lewis-Williams 1981: 25–34; 2002; Bank 2006).

Subsequently, Mitchell and one of us published and discussed Grant's complete diary; it too is now available on line (Mitchell & Challis 2008; sahumanities.org.za). This document, accompanied by a detailed introduction and extensive annotation, provides valuable information regarding the 'entire expedition … [and] sets Orpen's work with Qing in the broader context of the military and political manoeuvring surrounding the attempt to apprehend [the Hlubi chief] Langalibalele' (Mitchell & Challis 2008:400). The diary 'illustrates something of the complexities and difficulties met by the colonial authorities in trying to take measures against Langalibalele and the Hlubi, contextualises Orpen's encounters with their Bushman guide Qing, which have been so important for the development of southern African rock art research, and addresses the processes by which the Maloti's indigenous Bushman inhabitants were supplanted by Basotho settlers' (Mitchell & Challis 2008:405).

Another kind of context that has been discussed is the landscape in which Qing situated his narratives (Vinnicombe 1976; Lewis-Williams 2010; Lewis-Williams & Challis 2011). Over the past four decades this landscape has certainly not been ignored. On the contrary, it has been subject to intensive archaeological investigation that has provided a wealth of information regarding long-term trajectories of human occupation of the Maloti-Drakensberg (for a comprehensive summary see Mitchell 2009b; McGranaghan et al 2013). Indeed, one of us (MM) spent four seasons assisting with excavations in the Melikane and Sehonghong shelters as part of Brian Stewart and Genevieve Dewar's ongoing investigations into Middle Stone Age occupation of the Lesotho highlands (www.amemsa.com).

To understand Qing's narratives more fully, readers need to know about the mountainous terrain in which his mythical characters lived and, as far as possible, to understand the landscape from a San perspective, e.g. Qing's description of 'the secluded kloof[s] enclosed by hills and precipices' and the 'one pass [that] was constantly filled with a freezingly cold mist, so that none could pass through it' (Orpen 1874: 4, 7, 8.). In San thought, the spiritual realm was anchored in, and approached through, the material (Lewis-Williams 2010; Lewis-Williams & Challis 2011).

Contextualising Orpen's work historically and visiting the sites where he discussed the images with Qing is one thing. A thorough, first-hand knowledge of all the sites in the area is also required. Unfortunately, some writers on rock art undertake little fieldwork and, as a result, have only a superficial knowledge of the images and their contexts on rock faces and more generally. A few years ago, we experienced the importance of intensive fieldwork in the clarification of one of Qing's most enigmatic – and famous – interpretations. Pointing to what is clearly a quadruped painted in the Sehonghong site (Fig. 1), he said, 'That *animal* which the men are catching is a *snake*' (Orpen 1874: 10; original italics). Orpen's manuscript shows that, as an afterthought, he inserted an exclamation mark at this point: the creature is clearly not a snake. It is what we today would call a 'rain-animal'. As was pointed out long ago, the flecks of paint that surround the images were omitted from Orpen's original copy by the 19th century publication process (Lewis-Williams 1980: 469).

At least part of the answer to the 'quadruped' conun-

drum comes from a site which one of us (SC) explored, photographed and traced in the course of a number of research visits to the area (Fig. 2). It is on the other side of the Senqu river but within comparatively easy walking distance from Sehonghong. It shows a number of people catching a rather strange serpent and leading it by a thong attached to its nose. Clapping people, some of whom bleed from the nose and bend forward at an acute angle, surround the 'snake'. Flecks of paint are scattered among the figures. Qing's comments fit this group better than the Sehonghong painting:

'That *animal* which the men are catching is a *snake (!)*. They are holding out charms to it, and catching it with a long reim.[sic] … They are all underwater, and those strokes are things growing under water. They are people spoilt by the —— dance, because their noses bleed' (Orpen 1874: 10).

Fig. 2: A panel showing the capture of a rain-snake. It was found near the Sehonghong shelter.

Qing may have been using the word 'snake' in a generic sense (Challis et al 2013), though perhaps part of the explanation is that Orpen and Qing, 'happy and at ease smoking over camp-fires' in the evening (Orpen 1874: 2, 3), were speaking at cross-purposes. Orpen was thinking of the Sehonghong images while Qing was also aware of and influenced by his knowledge of the site on the other side of the river – and probably others as well, as his remarks show. This crux is more fully discussed in *Deciphering Ancient Minds* (Lewis-Williams & Challis 2011: 115–118) and in an article dedicated to this problem (Challis et al 2013).

In considering issues like those to which we have drawn attention, it is worth remembering that scholars do not attempt to say everything in every paper or book. That may have been possible in the 1940s and 1950s, but it is no longer. Having dealt with a topic or having accepted the work of other scholars, authors take it for granted that readers will acquaint themselves with earlier publications, some of which they cite. Researchers re-open the topics of foundational texts and sources only when they think that something new can be said, which is not infrequent, or a new readership is envisaged. They then historicise their own research by citing their predecessors' work.

It would be wrong to suppose that previous writers have merely 'raided' Orpen's article. Our brief review of earlier publications on the topic clearly indicates that Wright and de Prada-Samper's project is by no means the first to tackle the many historical, textual and contextual problems raised by the Orpen article. Recently, we were pleased that Wright was able to join two of us (SC and MM) on a trip to the southern Maloti-Drakensberg. We visited the historical archives held in the Morija Museum, Lesotho, as well as Orpen's farm Avoca (still owned by his descendants) in the Eastern Cape. In the light of the extensive collections encountered on this trip, we hope that profitable collaborative work can be under- taken on the intellectual framework in which Orpen was embedded.

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WORLD ARCHAEOLOGY

First unlooted royal Wari tomb found in Peru

The first unlooted imperial tomb of the Wari, the ancient civilisation that built its empire between 700 and 1000 AD, has been found. To prevent looters descending on the site, the archaeologists kept their discovery secret. Digging quietly for months in one of the burial chambers, they collected more than a thousand artefacts, including sophisticated gold and silver jewellery, bronze axes and gold tools, along with the bodies of three Wari queens and 60 other individuals, some of whom were probably human sacrifices. Krzysztof Makowski Hanula, an archaeologist at the Pontifical Catholic University of Peru in Lima and the project's scientific adviser, said the temple of the dead 'is like a pantheon, like a mausoleum of all the Wari nobility in the region'.

The Wari lords have long been overshadowed by the later Inca. But in the 8th and 9th centuries the Wari built an empire that spanned much of present-day Peru. Their Andean capital, Huari, became one of the world's great cities. At its zenith, Huari boasted a population conservatively estimated at about 40 000 people. Just how the Wari forged this empire, whether by conquest or persuasion, is a long-standing archaeological mystery. The sheer sophistication of Wari artwork has long attracted looters.

The spectacular new finds at El Castillo de Huarmey, four hours north of Lima, will go a long way toward answering some of those questions. Although grave robbers have been digging at the 44 ha site for decades, archaeologists suspected that a mausoleum remained hidden deep underground. On a ridge between two large adobe-brick pyramids, they spotted the faint outline of what looked like a mausoleum and uncovered an ancient ceremonial room with a stone throne. Below this lay a large chamber sealed with 30 t of loose stone fill. Inside the fill was a huge carved wooden mace, a tomb marker.

As the archaeologists carefully removed the fill, they discovered rows of human bodies buried in a seated position and wrapped in poorly preserved textiles. Nearby, in three small side chambers, were the remains of three Wari queens and many of their prized possessions, including weaving tools made of gold. Mourners had also interred many other treasures in the room: inlaid gold and silver ear-ornaments, silver bowls, bronze ritual axes, a rare alabaster drinking cup, knives, coca leaf containers, brilliantly painted ceramics from many parts of the Andean world and other precious objects. But for archaeologists the greatest treasure will be the tomb's wealth of new information on the Wari Empire. The imperial mausoleum at El Castillo shows that Wari lords controlled this part of the north coast and likely played a key role in the downfall of the northern Moche kingdom. Intriguingly, one vessel from the mausoleum depicts coastal warriors battling axe-wielding Wari invaders.

The Wari also fostered a cult of royal ancestor worship. The bodies of the entombed queens bore traces of insect pupae, revealing that attendants had taken them out of the funerary chamber and exposed them to the air. This strongly suggests that the Wari displayed the mummies of their queens on the throne of the ceremonial room, allowing the living to venerate the royal dead. Analysis of the mausoleum and other chambers that may still be buried is only beginning. Archaeologists expect to have another eight to ten years of work there. *National Geographic News, 27/06/13*

ROCK ENGRAVINGS – ANOTHER LOOK

Claudius Pereira

In this brief article I compare and evaluate the effectiveness of engraving rock art as found at sites across South Africa with stone tools as against metal tools, based on photographic evidence and practical tests.

General remarks

- Engraving on rock is much more difficult than some may suppose. It requires significant physical exertion, endurance and practice.
- Adequate water, plastic goggles, sun hat, gloves and protective clothing are highly recommended.
- During tests I found it advisable to first scratch an outline of my design, then to start hammering from the furthest point away and work down towards myself. This allows for better control and maximum power.
- Pounding directly onto the surface with stone or a metal tool does not work – one does need a 'chisel' and a 'hammer'.
- No tests were done at any archaeological sites.

Testing stone tools

I used some 15 random rock types, including quartzes, as the 'chisel' tool, with a very hard and heavy rock as the 'hammer'.

- After one or two hard blows, the stone points were partially or completely damaged.
- Most stone tools either crushed, splintered or, in the case of quartz, flaked in my hands.
- On relatively soft rock surfaces, e.g. sandstone, stone tools can easily leave quite deep scratch marks and are effective in scraping out the surface without using a 'hammer'.
- I could not replicate an actual engraving with any stone tool I used. Here engraving means chipping or knocking out a regular-sized bit of rock from the rock surface.

Testing metal tools

After several trials, together with a small metal hammer I settled on a standard metal punch as a 'chisel'. With the latter I hoped to replicate the most common metal tool, namely the tang or shaft end of iron hoes that are found at many archaeological sites. I also used an old spear to replicate drilled holes.

The result on hard rock surfaces

- A sharp point was not suitable as it bent quickly, but with usage the point wore out and a fattish round point proved to be ideal.
- The metal tool engraved very well depending on how hard and also at what angle the 'chisel' was hit.
- Vertical, light blows left indentations in the rock surface, but angled hard blows mostly knocked out regular-sized pieces.
- I managed to replicate rock engraving on hard rock surfaces.

On soft rock surfaces

- The metal punch was not at all suitable, I then used my metal spear.
- On soap stone I was able to drill holes by twirling vigorously. As the spear blade needed to 'cut' into the rock, it was necessary to sharpen the blade on the same soap stone, leaving long, thin incised cuts – as seen in my photos below.
- On sandstone, which is abrasive, I struggled to drill holes, although I could sharpen the tool quite easily by incising the blade on the rock.
- A twirling action alone would not actually drill. Rather, I had to press and twist downward with force as in using an awl to achieve the required effect. Perhaps my sandstone sample was much denser than those found at many sites around Lydenburg, causing my efforts to be unsatisfactory.

Photographic evidence

Gestoptefontein near Ottosdal

This stone, known as pyrophilite or wonderstone, is fairly soft but harder than soapstone. The image shows pecks, scratches, scrapings and long thin cuts that only a long and narrow metallic object such as an iron spear can produce.

The Lydenburg area

Boomplaats, Klipfontein, Thaba Tholo and other areas in the vicinity of Lydenburg constitute a very

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extensive rock engraving region. The rock is a relatively soft sandstone and this close-up photo shows pecks, scratches and drilled holes of various sizes. Long, thin sharpening cuts are common. The uniformity of hole sizes indicates the use of metallic points.

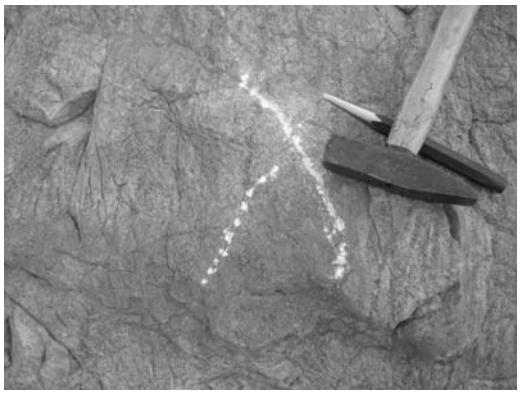
Driekopseiland south-west of Kimberley

The largest single rock engraving site in the country comprises a base rock of very hard andesite. This photo shows a regularity in the size and depth of engravings and cusp edges that strongly indicating the use of a metallic tip. My rounded punch produced virtually identical results.

Redan, near Vereeniging

With around 250 geometric engravings, Redan is like a mini Driekopseiland. The base rock is of very hard dolomite. Note the regularity in the size and depth of the holes that appear to result from peckings that have been engraved as well. Only the rounded point of an iron tool could produce this effect. Reshaped stone points could never reproduce the repeated regularity of this hole pattern. No cut or incised marks were found.

Metal tools



The metal punch and hammer used in the tests. Note the regularity of hole size and depth achieved, which is virtually identical to numerous rock engravings on hard rock surfaces at many sites.

Stone tools

This photo shows the result of using a stone chisel and hammer. This was typical of most stone tools I used, even though the stone types employed were very hard. No stone tool used was suitable as an engraving tool, as it could not withstand the hammering.

Conclusion

In my opinion, stones as tools are effective only in scratching and scraping without being hammered. Once hammering is applied to any stone 'chisel' they become unsuitable. My conclusion is that the vast majority of rock engravings were produced using iron tools (iron hoes). This has important implications for the dating of many archaeological sites in South Africa and beyond.

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WORLD ARCHAEOLOGY

Lost city found in Cambodia

A 1 200-year-old city known only from inscriptions dating to AD 802 has been found in north-western Cambodia using LiDAR airborne laser scanning. Called Mahendraparvata, one of the first capitals of the Khmer Empire, it is hidden beneath a dense forest on the holy mountain of Phnom Kulen ('Mountain of the Lychees'). The cityscape came into clear view along with a vast expanse of ancient urban spaces that made up Greater Angkor. The survey revealed, 'with exceptional clarity', traces of planned urban spaces around the major temples of Angkor. In addition, the researchers confirmed the existence of 'a vast, low-density urban periphery stretching far beyond the major Angkorian temples'. This suggests that rather than Angkor Thom being the central, walled-in city, it is just part of a more dispersed city.

The newfound cityscape would have existed between the 8th and 9th centuries, well before one of the largest religious monuments ever constructed, Angkor Wat, was built between AD 1113 and 1150. The LiDAR also revealed an entirely new class of Angkorian architecture. To the south of Angkor Wat and dating to the 12th century is a set of absolutely unique, very strange features, like enormous embankments of sand with channels between them. They have no counterpart anywhere in Angkor. It is speculated that the embankments represent gardens. *LiveScience, 18/06/13*

Europe's oldest rock art

The oldest rock art to have been found in Europe reveals an interest in the female form. The new discovery, uncovered at a site called Abri Castanet in France, consists mainly of circular carvings most likely meant to represent the vulva. The carvings were etched into the ceiling of a now-collapsed rock shelter about 37 000 years ago, about 1 000 years earlier than the art at Chauvet cave. 'It's everyday art,' said researcher Randall White of New York University. The artists who created this ceiling décor were the first humans in Europe, a group called the Aurignicians, whose society was quite complex. They painted, sculpted and made carvings. Their jewellery included woolly mammoth ivory beads, pierced animal teeth and shells from the Mediterranean and the Atlantic.

The Aurignicians would have spent winters at the site in France, perhaps in groups of up to 300 people, White said. They found shelter beneath a rock overhang about 7 m deep and 2 m high. On the ceiling, they carved multiple depictions of notched circles. Other European rock art sites have similar carvings, though with regional differences. Vulva imagery may have been of special interest because of a preoccupation with fertility and the mystery of birth.

Proceedings of the National Academy of Sciences, 14/05/12

PRELIMINARY EVIDENCE FOR AN INDIGENOUS PALAEONTOLOGY IN SOUTHERN AFRICA

Charles Helm

Fossil-related art, history and legend have become part of the new discipline of geomythology, pioneered by Adrienne Mayor (2000). Evidence has accumulated from diverse sites indicating that some of our distant ancestors were palaeontologists, in the sense that they knew of fossils, often incorporated this awareness into their understanding of their world, and celebrated this knowledge in their legends and art.

Fossil trackways are sometimes easier to identify than fossil bones; possibly fossil footprints were therefore recognised for what they were before bones were appreciated as being the organic remains of extinct creatures (Sarjeant 1997). Early people encountering trackways in stone may have been 'fascinated by fossil tracks of animals they could not place' (Lockley 1991).

Geomythology has been relatively neglected by academics in southern Africa. One exception is an article in *Ichnos* (Ellenberger et al 2005). Describing rock art in Lesotho's Mokhali Cave that resembles a dinosaur footprint surrounded by paintings of three presumed track-makers, the authors noted that the San had spoken and sung of a lethal prehistoric monster called //Khwai-hemm (Bleek and Lloyd, 1911). They then make the following assertion:

'The prehistoric Bushmen sang about the early times, and about the monsters that made the beast-footed trackways in the red rock. Petrified bones of dinosaurs, so numerous in Lesotho, made a big impression on them. One ought not to be astonished that these grand connoisseurs of nature were interested and knowledgeable about dinosaurs. They would have had vivid impressions of giant footprints left by wandering dinosaurs, an experience that confers very strong dynamic images of dinosaurs as living, moving creatures.

'There was, then, an authentic Bushmen paleontology – //Khwai-hemm had held primacy over all the creatures which were living on earth during the far old beginnings. The only things now visible are its tracks, or bones transformed into stone. By carefully observing the various Jurassic tracks the artist could reconstruct pictures of specific track-makers, in effect bringing //Khwai-hemm and contemporary creatures back to life.'

Further evidence is required to buttress such claims. Ironically, it is not certain that the San were responsible for these images (Helm et al 2012). Six southern African sites, including Mokhali Cave, are described in this article and it is suggested that palaeontology helped shape the worldview of prehistoric peoples in the region. Where pertinent, examples from other continents are described.

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Bolahla, Lesotho

In her analysis of the fauna from Bolahla, a cave in southern Lesotho, archaeo-zoologist Ina Plug (pers. comm.) identified a terminal phalanx of a large vertebrate, possibly belonging to the prosauropod dinosaur *Massospondylus*. She hypothesised that someone living in the cave at the time the archaeological material was deposited found that fossil bone and was sufficiently interested to take it home. At the very least, she concluded, it must have had curiosity value (Fig. 1).

Fig. 1: A Massospondylus phalanx

Mokhali Cave, Lesotho

In 1930 Paul Ellenberger, aged 12, made a tracing of the fossil art described above. Seventy-five years elapsed before details on this site were published (Ellenberger et al 2005). Buttressing the claim that the images represent prehistoric creatures is the presence of a dinosaur skeleton near the eastern end of the cave and dinosaur trackways 3 km away. The site was revisited in 2011 and Kevin Crause's CPED Toolset was applied, allowing the faded art to morph into a striking painting (Fig. 2) (Helm et al 2012).

Fig. 2: Dinosaur footprint in Mokhali cave after application of the CPED Toolset by Kevin Crause

The nearby dinosaur tracks do not obviously correspond to the footprint image, although the art resembles tracks found elsewhere in Lesotho. Dinosaur track sites are ephemeral – once exposed, they are often soon eroded. A number of documented sites in Lesotho have disappeared, while others have become exposed. Caution should therefore be exercised when considering on which tracks pre-historic inhabitants may have based their artwork.

Unfortunately only minor traces remain of the presumed track-maker images, of which Ellenberger et al (2005) wrote: 'One can make the case that the artistic portrayals represent a remarkably modern or realistic view of dinosaurs as elegant, erect, bird-like creatures … Most striking is the upright bipedal stance.'

Although authors assumed San authorship, the production technique suggests such an assumption may be invalid. Other art in Mokhali Cave may be in the Late White style by Bantu-speaking agriculturalists.

A similar site occurs in North America at Flag Point in Utah. Here a painting resembling a dinosaur footprint adorns a cave wall just below dinosaur trackways (Lockley et al 2006). The authors claim this as evidence that Native Americans depicted theropod dinosaur tracks they must have observed. It is associated with two lines of figures on either side, facing the footprint with arms raised, possibly in veneration.

Thybony (2002) described the painting as 'instantly recognisable … it clearly depicted one of the fossil tracks … seen above'. He suggests that it 'must be the oldest-known recording of a dinosaur footprint in North America'. Intriguingly, both the Mokhali Cave and the Flag Point images face downwards, seemingly the 'wrong way round'.

Schaapplaats, eastern Free State

Schaapplaats farm, near Clarens, borders on Lesotho. A dinosaur footprint is found close to a number of separate image clusters in one shelter. The gallery is fenced and gated and the footprint is located on a separate block of loose rock at the downstream end of the shelter, just inside the fence.

This track-bearing rock has fallen from the ceiling, above which is a thin layer of mudstone. The dinosaur likely walked in this layer of mud and the track (left pes) in the underlying sandstone is probably an under-track. Ahead of it a second under-track (right pes) was found, less well-preserved. The footprint length is 9 cm, the width 5,5 cm, the pace length 42 cm. No manus impressions were noted and this narrow tridactyl trackway in the Clarens formation (early Jurassic) was probably made by a small theropod such as *Lesothosaurus.* This two-print track- way leads directly towards a panel of at least five eland (Fig. 3). The artist/s would have had to crouch or kneel on the dinosaur trackway to produce the paintings.

On the ceiling of the shelter a large natural cast with blunt toes is present, over 30 cm in width and length

Fig. 3: Arrows indicate the theropod trackway at Schaapplaats. Eland and other images are visible on the rock wall behind the tracks.

that filled in a dinosaur footprint, putatively made by *Massospondylus*. It may be part of a three-print trackway, the casts ahead of and behind it having fallen from the ceiling. The main therianthrope panel and rhebok hunt panel are situated directly into the shelter from this natural cast.

A probable medium-sized theropod footprint (length greater than width, narrow-toed) occurs on the ceiling further upstream. On the wall behind this footprint is a panel that has been labelled 'the enigma'. It comprises two orange paintings, one of which is an eland. Above the second orange painting, which has unusual appendages, are two bright red paintings, probably 500 to 600 years old. The lower red figure lends itself to possible prosauropod or theropod interpretations. The other red design is a crescent. That such an enigmatic work occurs in a shelter festooned with dinosaur tracks may generate new hypotheses.

A site with similar characteristics has been identified in Poland. Gierlinski and Kowalski (2006) described a dinosaur footprint beside petroglyphs near Kontrewers, at a site of possible occult gatherings. They suggested that the petroglyphs 'accentuated the mysterious, perhaps supernatural, character of the fossilised footprint'. While acknowledging that the connection between the dinosaur track and the art is not firm, they suggest that 'the presence of fossil footprints might have inspired shamans to choose the site for sacred rock art, whatever the engraved images may represent'.

Avondzon, eastern Free State

Avondzon farm lies north of Fouriesburg. The hill contains multiple rock art sites in the Clarens Formation. The eastern area of art comprises two shelters containing mostly faded paintings. Near the centre of the easternmost shelter, towards the back wall, a large rock has fallen from the ceiling, displaying three fossilised bones, likely dinosaurian (Fig. 4). The largest is 16 cm long and 2,5 cm wide. Chisel marks

surround it, indicating an unsuccessful removal attempt. Portions of the bones are visible on the ceiling beside a fourth, larger bone.

Whereas this and the adjoining shelter are sparsely endowed with paintings, there is a zone of concentrated paintings close to the bones. The closest artwork is 75 cm from the bone, on the nearest suitable surface (Fig. 5). There is no obvious connection between the skeletal material and the art other than proximity, although the closest images are faded and challenging to interpret.

Fig. 4: Dinosaur bones beside a 10 cm scale in a rock shelter at Avondzon

Boesmankoppie, Northern Cape

Boesmankoppie is a low-elevation dolerite hill within Mokala National Park, west of Kimberley. As on other summits nearby, rock engravings have been made on dolerite boulders, exposing reddish rock beneath the weathered black surface.

Engravings of a variety of mammals, ostrich and monitor lizard are apparent, along with two human figures. One engraving resembles a three-toed footprint of a giant bird or theropod dinosaur (Fig. 6). Many birds leave an impression of a backward-pointing first digit, while theropods typically exhibit tracks with only three forward-pointing toes. There is no evidence of a backward-pointing toe in this engraving. The 'digits' are approximately 15 cm long. All the other engravings are significantly smaller than their real-life counterparts. This suggests that the engraving may depict the track of a large prehistoric or mythical creature. Similar tridactyl engravings occur in areas with dinosaur footprints in Arizona and Wyoming.

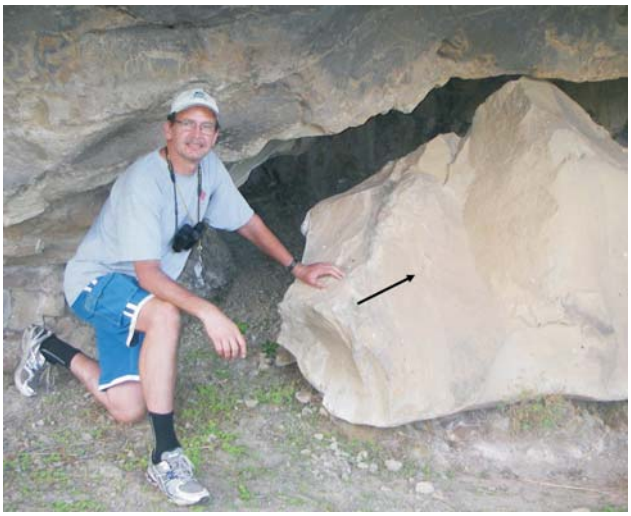

Fig. 5: The arrow indicates the site of the dinosaur bones. Eland and other images are visible on the rock surface above the author's head (Photo: Penelope Noall)

Fig. 6: The dotted line outlines the tridactyl rock engraving on a dolerite boulder at Boesmankoppie

Fig. 7: Rock art at Sevilla after application of the CPED Toolset by Kevin Crause (photo: Kevin Crause)

Sevilla, Western Cape

Sevilla farm in the northern Cederberg boasts multiple galleries of San rock art. One of these contains two tailless, long-necked animal figures, one with a gaping mouth (Fig. 7).

Whereas the San in what is now Lesotho and the eastern Free State would have encountered Triassic and early Jurassic dinosaur trackways and bones, their counterparts in the Western Cape mountains would have been more likely to come across smaller invertebrate fossils. However, to the east stretched the Karoo, containing its now-famous assemblage of Permian mammal-like reptiles and their trackways.

Original thinkers such as Martin Lockley and Wolfgang Schad have turned their attention to animal morphology and to what can be learned about a creature's appearance and habits from a study of its tracks. Their conclusions challenge traditional thinking:

'In the study of tracks, the narrowness or breadth of a foot, hand or body is expressed in coherent biological relationships throughout the body of individuals or species' (Lockley 1999).

Tracks and trackways thus provide information on the whole animal. The San were among the finest trackers, apparently able to interpret the characteristics of a track-maker from its prints alone. They are cited by Lockley as an example of a people that understood these relationships:

'… [the] Bushmen, who somehow possessed a form of holistic consciousness that allowed them to correlate tracks with animals with such consistency that observers claim they were never wrong.'

Details of this sphere of research are beyond the scope of this article. Suffice it to say that from the perspective of trackers like Lockley, the types of animal depicted in the Sevilla panel are what one might expect from an informed study of the tracks of a mammal-like reptile such as *Bradysaurus,* a trackway of which exists near Prince Albert Road. Or, if it represents a trance image of a beast encountered in the spirit world, such a vision may have been related to a prior interpretation of trackways or bones.

Discussion

Lewis-Williams (2006) summarised the evolution of southern African rock art research and the importance of ethnography, notably the work of Bleek and Lloyd. Thankfully, these pioneer researchers documented //Khwai-hemm, and ethnography provides another dimension of support for indigenous palaeontology.

Southern African rock art interpretation has evolved over time, with the caveat that we may never fully understand what an image meant to its author. Implicit in such an assessment of rock art research is an openness to new perspectives. Recognising the original inhabitants of southern Africa as indigenous palaeontologists can be an additional tool in the assessment of rock art.

International examples substantiate such thinking. Arabic legends of a colossal bird relate to dinosaur tracks in Algeria (Mayor and Sarjeant 2001). In Australia, theropod footprints generated the legend of Marella, the emu-man, aided by the belief that nearby seed-fern fossils represented its feathers (Mayor and Sarjeant 2001). Thybony (2002) notes a dinosaur track-site in Utah named 'tsidii nabitin', which is Hopi for 'bird tracks' and which features the spoor of Kwaatoko, a powerful 'man-warbird'. The indigenous people of Brazil made rock engravings that resemble running birds beside the footprints of theropod dinosaurs (Mayor and Sarjeant 2001). A common thread links these stories, intertwineable with the world of the San.

Some of the six sites described are compelling, others speculative. More such sites probably exist. Care needs to be taken not to confuse association with causation: neither rock art nor fossils are uncommon. Close proximity could, theoretically, merely be coincidental.

Approaching this topic from the perspective of a tracker may seem novel in southern Africa. Further work is needed on this meeting point between palaeontology and archaeology. There is no data base of southern African fossil trackways. Such a compilation could be a beginning. The data could be compared with that on rock art sites, allowing for a scientific assessment of relationships. This hitherto underappreciated interface may become illuminating common ground for palaeontologists and archaeologists.

Acknowledgements

Sven Ouzman generously shared information on the Avondzon and Schaapplaats sites, and provided sage advice. Ina Plug likewise shared details on the Bolahla excavation. Martin Lockley introduced me to the association between tracks and morphology, and the work of Ellenberger. Albert Broeksma, Kevin Crause, David Groenewald, Daniel Helm, Richard McCrea and Penelope Noall provided invaluable support. Christine Walwyn was a gracious hostess at Schaapplaats. Jarryd Elan-Puttick and Stephan Prins were excellent guides in Mokala National Park.

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THE CHEETAH HUNT OR LIONESSES RELAXING?

A Zimbabwean rock art site revisited, renamed and reinterpreted

Paul Hubbard

An exciting aspect of rock art research is relocating and revisiting rock art sites that have been published in archaeological literature. One such site I have the privilege to visit fairly often is the so-called 'Cheetah Hunt', later renamed to 'Lionesses Relaxing'. This small site is perhaps one of the most charming and easily accessible in the Matobo Hills National Park.

Historical background

The site was first published by Neville Jones (1949; see Fig. 2) as the frontispiece for his book *The Prehistory of Southern Rhodesia*. Jones named it the Cheetah Hunt because he believed that the panel showed human figures actively engaged in hunting the animals, which he judged to be cheetah based on their white bellies and silhouettes. Since four of the animals were lying on their backs, Jones regarded them as having been killed by the hunters, but did not speculate why the hunter-gatherers would have wanted to hunt and kill such animals. Predators rarely form any part of the normal diet of Bushmen in southern Africa.

For many years after that the exact location of the site remained uncertain and it excited much speculation. By his own account the site was relocated in 1967 by Bert Woodhouse (1984, 1999). He showed it to Cran Cooke, then the head of the Historical Monuments Commission (now National Museums and Monuments of Zimbabwe) who officially entered it into the archaeological survey records. However, Cooke (1974) credits the then warden of the Matopos National Park, J Grobler, with rediscovering the site.

Identification

There are three possible candidates for the inspiration behind the drawings: lion, cheetah and leopard. The leopard may be discounted in this instance since it does not have a white belly as do the animals shown in Fig. 4. When a leopard is drawn in the Matobo Hills it normally has clear rosettes or spots (cf. Walker 1996). Cheetahs and lions do both have a pale belly. Neither the cheetah nor the leopard is a gregarious animal, although the cheetah has been observed in groups of up to six animals (Estes 1992). In addition to this, the form of the painted animal is quite dissimilar to that of both the leopard and the cheetah, especially if one examines the head, legs and feet of the animal. A lioness has a square head and a larger, flattish snout than either possible candidate, and its silhouette matches many of the figures in the rock art panel. Therefore, the images are clearly meant to depict female lions.

Woodhouse (1984, 1999) accepted that the panel did show cheetahs, but that it did not show a hunting scene since the animals appeared 'too relaxed'. He rightly concluded that the human figures were unrelated. After intensive study and consultation with a wildlife expert, Cooke (1974) decided that the animals could not be cheetahs 'because a) the head is the wrong shape and b) the paws are too big'. Cooke also disputed the idea that the animals were being hunted since 'none of the animals appears to be moving with sufficient urgency'. Cooke favoured the idea that the animals were female lions and suggested 'that Lionesses Relaxing would be a more fitting title'.

Description of the paintings

The most unusual feature of this panel is the number of lionesses painted on the rock surface. At least 18 are visible (Figs. 1 and 3) and it is certain that several have disappeared because of the effects of natural weathering and damage done by careless visitors. Thirteen of the lionesses are painted in red pigment and five are in yellow. Eight of the lionesses have wide, gaping mouths. Four lionesses are painted upside down. One lioness has been deliberately painted over two red antelope. Directly below the main panel of paintings are four small humans, three of which are armed with bows and arrows, and a small duiker, all surrounded with unidentifiable fragments of paint. About 0,5 m below the main panel is another small panel with patchy remains of animals and humans.

The floor area beneath the sheltered area is small. A few Late Stone Age quartz flakes are visible but no formal tools have been noted. No excavations have been done at the site. Interestingly, a comparison of the copies of the panel made by Jones (1949; see Fig. 2) and Walker (1996; see Fig. 3), even taking into account the vagaries of rock art copying, show little deterioration in the rock art over 50 years. This is probably because the location of the panel was unknown for much of that time. Regrettably, the site is now known to local tour operators who have been taking large numbers of visitors to the site. In addition, a path used by local people walking through the park passes next to the overhang. Consequently the paintings have suffered damage in the lower portions, most notably with a series of lines being scratched over a few of the paintings (Fig. 6). Efforts are being made

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Fig. 1: General view of the painted panel

to educate local people and tour operators about site etiquette to preserve this unique and important rock art panel.

Interpretation

Painted felines have been well interpreted by Garlake (1995) and Lewis-Williams (e.g. 1981, 1985), and only a summary is needed here. In Bushman thought, felines are opposed to herbivores – 'large biting animals' vs. 'large non-biting animals'. This dichotomy is often used to represent male/female. In other instances, herbivores are equal friends, and felines are unknowns or threats (Garlake 1995; Lewis-Williams 1985). Lions, powerful creatures imbued with so much supernatural power and ability became natural avatars for hunter-gatherers aiming to achieve great feats or seeking protection in uncertain times.

The Bushmen believed that lions had powers similar to that of a medicine man. Lions could transform into humans and could cause the sun to set. They could also dream, enter into the spirit world, travel great distances by magical means and 'make' rain (Bleek 1932; Garlake 1995; Lewis-Williams 1981, 1985; Lewis-Williams & Challis 2010). They were (are) something to be respected and feared. Antelopes were seen as the epitome of sociability and peace, while felines, especially male lions, were associated with violence, lack of restraint and even death (Lewis-Williams 1981, 1985). The medicine men (shamans) could also 'become' lions during their entry into the spirit world and had to be handled with care when in this state. Shamans intending harm also turned into lions (cf. Bleek 1932; Lewis-Williams 1981, 1985; Lewis-Williams & Challis 2010).

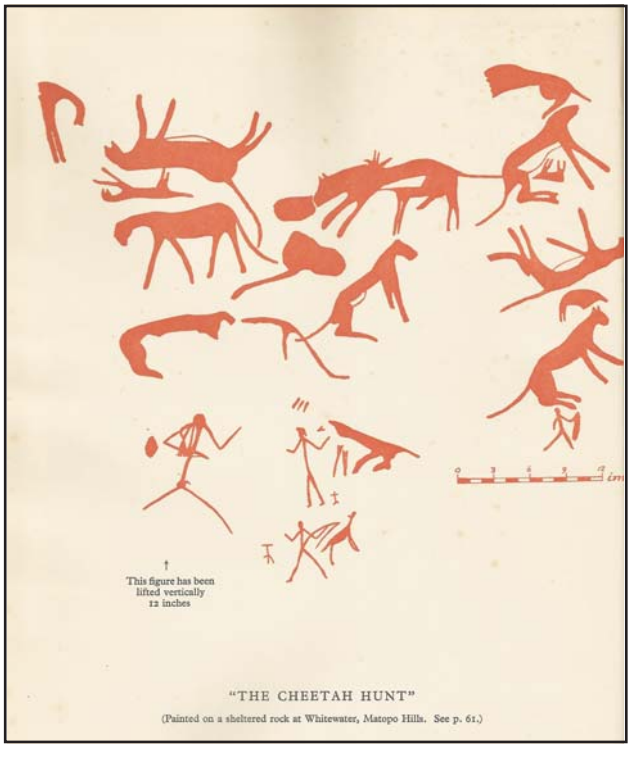

Fig. 2: Neville Jones' copy of the elusive painting

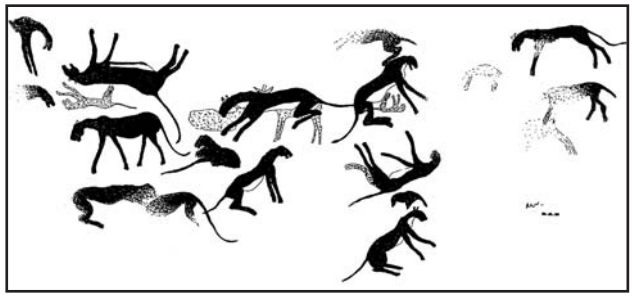

Fig. 3: A tracing of the painted panel by Nick Walker

Felines are not very common in the rock art of southern Africa and even when they do appear they are usually depicted singly or in pairs (e.g. Cooke 1964; Eastwood & Eastwood 2006; Lewis-Williams 1981; Parry 2000; Walker 1996). Currently, less than 30 feline sites are known in the Matobo Hills out of a total of 3 500 sites (Walker 1996; *pers. obs.*). The large number of lionesses painted at the site under discussion thus makes the site exceptional and unusual, and interpretation difficult. A review of the published literature has revealed that male lions are the norm, especially in South Africa (Woodhouse 1984).

It is clear that not all of the lionesses at this site were painted at the same time. The yellow figures appear to have been added later, given how they have been painted to fit within the space left by the red figures (Fig. 4). The site was thus reused several times and it is likely that specific meanings and the symbology behind the images changed with time too.

Given what is known about felines in general and lions in particular in Bushman thought, myth and legend, several possibilities present themselves. Lions represent the unknown and strange – and thus danger – and such a grouping could indicate unsettling interactions between different social groups, perhaps even the arrival of agriculturalists into the Matobo Hills area some 2 200 years ago (Walker 1983). The hunter-gatherers could have painted these images in an attempt to regain control of their lives and the environment, and to negate the problems created in such unsettled times (see Lewis-Williams & Challis 2010). In similar fashion, the scene could represent a conflict between two groups of hunter-gatherers, or

Fig. 4: Close-up of a lioness. Note smaller yellow animal painted between both pairs of legs. The swollen stomach is significant.

even two groups of medicine men (or women).

The super-positioning of one lioness over the antelope on the same panel suggests deliberate intent to cancel out or supplant the goodness represented by the hoofed animals. The lionesses' swollen bellies are indicative of potency and spiritual power (Garlake 1995). Several of the lionesses have their spines deliberately outlined in a different colour, which could reflect the 'boiling energy' released during trance, which is said to travel along the spine before being expelled and used by the medicine man (Lewis-Williams 1981).

Fig. 5: An individual lioness with curved tail

The upside down animals as well as figures with distended bellies and gaping mouths are strongly suggestive of a spiritual meaning for the whole panel, possibly even trance, something that is not commonly depicted in Zimbabwe rock art (Garlake 1995; pace Lewis-Williams 1981 and passim). Upside down animals are usually taken to indicate a transition to the spiritual world, representing both the physical and spiritual 'death' that such a journey entails (Garlake 1995). The fact that lions – fearsome creatures of the night and spirit world – are painted upside down shows the close relationship between people and the animal world. The boundaries between each were permeable and freely crossed; animals and people could transform to meet their needs and desires.

Fig. 6: A large yellow lioness that has been defaced by graffiti and been damaged by water action

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LETTER TO THE EDITOR

From Leon Jacobson, Sasolburg: I thought you might like a very short note for *The Digging Stick* mentioning an important new book I have just been sent. It deals with the shipwreck of the *Bom Jesus* that took place in 1533 and that was discovered by workers in the diamond diggings near Oranjemund. Associated with it were stunning remains of shipboard life and trade goods, including copper, tin, lead, and gold and silver coins [see *The Digging Stick* 28(3), December 2011: 20-21].

It is written by Wolgang Knabe and Dieter Noli. Knabe is a specialist in the development of international maritime trade and Noli is an archaeologist from Cape Town. It is in German but fairly easy to read and is beautifully illustrated. It deals with the wreck that Noli originally excavated, the finds and their social and economic context in the growing trade between Europe, Africa and the Far East. I do not have a price for the book.

Knabe, W & Noli, D. 2012. *Die versunkenen Schaetze der* Bom Jesus. Berlin: Nicolai Verlag.

ARCHAEOLOGY IN AFRICA

Ardi's kind had a skull fit for a hominid

One of the most controversial proposed members of the human evolutionary family, considered an ancient ape by some sceptical scientists, is a real hominid, an analysis of a newly reconstructed skull base finds. By 4,4 million years ago, *Ardipithecus ramidus* already possessed a relatively short, broad skull base with a forward-placed opening for the spinal cord, an arrangement exclusive to ancient and modern hominids, William Kimbel of Arizona State University says. Although features of the skull's floor evolved substantially in Homo species leading to modern humans, Kimbel said, those changes appeared in piecemeal fashion starting at least a couple of million years earlier in hominids such as *Ardipithecus*.

A. ramidus is best known by the partial skeleton of an adult female, dubbed Ardi, found in Ethiopia and described in 2009. Elements of Ardi's build that relate to tree climbing, such as grasping feet and an elongated lower hipbone, have raised suspicions that she and her kind come from apes that evolved a rudimentary ability to walk upright without being hominids. However, Ardi's discoverers argue that she's a hominid whose species split time between slow, awkward walking and shuffling along tree branches while grabbing upper branches for support. The new skull reconstruction fits that view.

By examining 79 skull bases of chimps, gorillas, modern humans and ancient hominids, Kimbel's group identified relationships among anatomical landmarks that distinguish apes from people and hominids. The researchers estimated the total length of *A. ramidus*' skull bottom and found that it fell within a range characteristic of hominids, not apes. As in more recent members of the *Australopithecus* genus, such as the 3,2-million-year-old Lucy skeleton, *A. ramidus* displays a relatively short, humanlike skull base, Kimbel said. A new 3-D analysis of Ardi's previously reconstructed pelvis finds a mix of monkey, ape and hominid characteristics. Although not confirming a consistently upright gait, this version of Ardi's hips does not undermine her proposed hominid status.

Sciencenews, 15/04/13

Riddle of Nile kingdom's longevity solved

Researchers have solved the riddle of how one of Africa's great civilisations survived a catastrophic drought that wiped out other dynasties. Geomorphologists and dating specialists from the Aberystwyth, Manchester and Adelaide universities say that it was the River Nile that made life viable for the Kerma kingdom in what is now northern Sudan. Kerma was the first Bronze Age kingdom in Africa outside Egypt.

Their analysis of three ancient river channels, 20 km from the today's river course, shows that its floods were not too low or too high to sustain life between 2500 BC and 1500 BC when Kerma flourished. The researchers also showed that the thousand-year civilisation came to end when the Nile's flood levels dropped and a major channel system dried out, although an invasion by resurgent Egyptians was the final cause of Kerma's demise. Downstream in Egypt, a catastrophic 30-year drought around 2 200 BC, accompanied by low Nile floods, created chaos in the old kingdom for at least a century. Other civilisations in the near east and Mesopotamia were also severely hit by this drought.

Prof. Jamie Woodward from the University of Manchester commented that it was quite remarkable that the Kerma civilisation was able to flourish and produce amazing craftsmanship and wealth at a time when their Egyptian rivals to the north were struggling with environmental, social and political strife. The field work had solved the riddle. Using hundreds of deep irrigation pits dug by modern Sudanese farmers, the team was able to observe the geological history of the old channels. In places, these old channel belts are well preserved and are between 1 km and 3 km wide with Kerma sites on their margins.

Archaeological surveys of the floodplain in the Dongola Reach to the south of Kerma have discovered more than 450 sites spanning the Neolithic (pre-3500 BC) to the Medieval Christian period (AD 500-1500).

Geology, 29/04/13

WORLD ARCHAEOLOGY

Most ancient port found

A 4 500-year-old Egyptian harbour has emerged on the Red Sea coast. It predates by more than 1 000 years any other port structure known in the world, according to Pierre Tallet, Egyptologist at the University of Paris-Sorbonne. Built at the time of King Cheops, the port was found at Wadi el-Jarf, 175 km south of Suez. The site was first explored in 1823 by British pioneer Egyptologist Sir John Garner Wilkinson, who found a system of galleries cut into the bedrock a few kilometres from the coast and believed them to be catacombs. The place was then described by French pilots working in the Suez Gulf during the 1950s, but no one realised that it concealed the remains of an ancient harbour.

Tallet has been excavating the area since 2011, focusing on the most visible part of the site, the galleries described by Wilkinson. The excavation has revealed 30 of these galleries, measuring on average 25 m long by 4 m wide and 2,75 m high. Used to store dismantled boats after regular expeditions to transfer copper and stone from Sinai to the Nile valley, the galleries featured an elaborate closure system that made use of large and heavy limestone blocks inscribed with the name of Cheops. Inside the galleries several boat fragments, ropes and pottery dating to the early fourth dynasty were found. Three galleries contained storage jars that probably served as water containers on the boats.

Underwater exploration at the foot of the jetty revealed 25 pharaonic anchors, all dating from the fourth dynasty. Another 99 pharaonic anchors were found 200 m from the sea in the remains of an Old Kingdom building, some inscribed with hieroglyphic signs, probably the names of the boats. Most interestingly, the storage galleries also contained hundreds of papyrus fragments, of which ten were very well preserved. According to Tallet, these are the oldest papyri ever found. Many of the papyri describe how the central administration, under the reign of Cheops, sent food – mainly bread and beer – to the workers involved in the Egyptian expeditions departing from the port. But one papyrus is much more intriguing: it is the diary of Merrer, an official involved in the building of the Great Pyramid of Cheops. From four different sheets and many fragments the researchers were able to follow his daily activity for more than three months. 'He mainly reported about his many trips to the Turah limestone quarry to fetch blocks for the building of the pyramid,' Tallet said.

Discovery News, 12/04/13

Farming sprang up in multiple places

In the dry foothills of Iran's Zagros Mountains a new picture of mankind's first farmers is emerging from an archaeological dig that has turned up a jackpot of artefacts and plant grains. People who lived in the region began cultivating cereal grains as early as 11 700 years ago, according to the new analysis by the University of Tübingen, which adds Iran to the list of places in the Near East where the first inklings of farming emerged just after the end of the last Ice Age. Along with previous work in nearby regions, the new study suggests that farming began simultaneously over a widespread area.

The study of farming's origins have long focused on a region known as the Fertile Crescent, which encompasses the land around modern-day Syria, Israel, Jordan, Turkey and Iraq. When the last Ice Age ended, the Fertile Crescent's climate and terrain became ripe for crops to grow. Previous digs have turned up evidence of the very beginnings of cultivation in a handful of sites in the western part of that region.

In 2009 and 2010, archaeologists were finally able to excavate a site called Chogha Golan at the base of Iran's Zagros mountains on the eastern edge of the Fertile Crescent, much further east than previous searches for evidence of early farming. As they dug through 8,5 m of sediment dating back nearly 12 000 years, they unearthed an amazing array of artefacts, including clay figurines, animal bones, ornaments, mortars, grinding tools and signs of burials. The sequence of objects and materials showed that fairly large groups of people lived in the area between 12 000 and 9 800 years ago.

The new study focused on an extraordinarily rich bounty of botanical remains. In 717 collected samples, 21 000 plant remains were turned up. Over 2 000 years of prehistoric living, changes in the structure of plant remains brought to light progress from crude plant management to true domestication. In the earliest days of occupation at the site, people were planting wild varieties of barley, wheat, lentils, grass peas, etc. Over time, the part of the plants where the grains attach changed in ways that suggest people began breeding and domesticating the crops to be better for harvesting and processing.

Discovery News, 04/07/13

ARCHAEOLOGY IN BRIEF

700 000-year-old horse DNA sequenced. Some of the oldest DNA sequences come from mastodon and polar bear fossils about 50 000 and 110 000 years old, respectively. But the Natural History Museum of Denmark at the University of Copenhagen reports that samples from a 700 000-year-old horse leg bone have yielded the oldest full genome yet. The Pleistocene horse genome pieced together helped the scientists determine that the ancestor to the *Equus* lineage – the

group that gave rise to modern horses, zebras and donkeys – arose 4 to 4,5 million years ago. The bone the team analysed originated in the Yukon Territory of western Canada where permafrost kept the remains in cold storage for about 735 000 years. The researchers sequenced 12 billion DNA molecules of which 40 million were of horse origin, the rest being microbial DNA. *Nature/National Geographic, 26/06/13*

22 000-year-old stone tools in Brazil. Humans lived in north-east Brazil 22 000 year ago, according to a controversial study. An archaeological team led by Christelle Lahaye of Michel de Montaigne Bordeaux 3 University in France excavated a rock shelter in Brazil and found 113 stone tools. The sediments in which the tools were buried were dated thousands of years earlier than any known human colonisation of the Americas. For decades, archaeologists thought that the Clovis people were the first to enter the Americas 13 000 years ago, but since the 1980s evidence has accumulated for an earlier colonisation at least 15 000 years ago. Lahaye said the tools are made of a rock not present at the site.

Journal of Archaeological Science, 09/02/13

Ancient technology for metal coatings. Artists and craftsmen more than 2 000 years ago developed thin-film coating technology unrivalled even by today's standards for producing DVDs, solar cells, electronic devices, etc. Scientists have made good progress in understanding the chemistry of many ancient artistic and other artefacts. Big gaps in knowledge remain, however, about how early gilders applied such lustrous, impressively uniform films of gold or silver to intricate objects. A variety of techniques, including using mercury like a glue to apply thin films of metals to statues and other objects were employed. Sometimes, the technology was used to apply real gold and silver. It also was used fraudulently to make cheap metal statues that look like solid gold or silver. The findings confirm the high level of competence reached by the artists and craftsmen of these ancient periods who produced objects of an artistic quality that could not be bettered in ancient times and has not yet been reached in modern ones. *Eurekalert, July 2013*

China unearths over 100 new terracotta warriors. Another 110 life-size terracotta warriors have been unearthed near the Qin Emperor's mausoleum in Xi'an. Archaeologists also uncovered 12 pottery horses, parts of chariots, weapons, tools and a shield that was reportedly used by soldiers in the Qin Dynasty (221-206 BC) with red, green and white geometric patterns. The most significant aspect of this discovery is that the relics were well-preserved and colourfully painted. Qin Shihuang presided over the unification of China in 221 BC and is seen as the nation's first emperor. *AFP, 11/06/12*

The South African Archaeological Society

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

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

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The Society produces the following publications:

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

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