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ARTEFACTS

Reports covering the period July 2014 to March 2015

EVENING LECTURES

An approach to contact rock art of the Eastern Cape: Rain-bulls and rain-snakes (31 July 2014)

Lourenço Pinto, doctoral student, Rock Art Research Institute, University of the Witwatersrand

The method of interpreting San rock art that has been dominant since the 1980s is based on the use of evidence from ethnographic studies of San individuals and groups made in the 19th and 20th centuries. Researchers who use this method look for pointers in the ethnography to try to establish the possible 'meanings' of recurring themes and motifs in the art. They tend to see 'San culture' in generalised terms as relatively homogeneous, with only minor variations from one region to another, and with little change over time. The method is, in other words, largely ahistorical in its approach.

Since the 1990s, numbers of students of San rock art have felt uncomfortable with this approach and have looked for evidence of regional variations in the art, as well as possible changes over time. They have been particularly concerned with assessing the effects that 2 000 years of 'interactions' between San hunter-gatherers, Khoekhoe pastoralists and Bantu-speaking farmers may have had on San culture, including the art. This approach is based on historical as well as on ethnographic analysis, but a major difficulty with this approach is that researchers tend to place the subjects into more or less fixed cultural boxes – 'the San', 'the Khoekhoen', 'the Bantu', 'the Nguni', 'the Sotho', 'the Xhosa', and so on. They focus on the 'flows' of 'elements' of culture between the boxes, without sufficiently taking into account that in the processes of interaction the boxes themselves have been liable to change. As a result, this method leads to the making of broad generalisations about cultural change without adequately identifying or explaining the specifics of change in San art at regional and local levels.

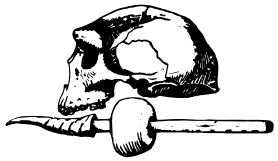
In his talk, Law Pinto adopted a third possible approach to interpreting the art, one which seeks to explain its meaning in terms of more specific geographical and historical factors relating to the making of local cultural 'hybridities'. His focus was on the rock paintings in a single site, RSA SCR1 near Cathcart in the Eastern Cape. It is a small site, situated very close to a waterfall and pool on a small stream. It contains several dozen painted figures, including a number of therianthropes, three 'slug-like' animals and two bovids that show features of both eland and cattle. In Law's view, these bovids are a strong indication that the culture of the San in the region was influenced over a long period by the presence of people with cattle. Archaeological evidence shows that pastoralists – probably ancestral to the historical Khoekhoen – were settling in the southern and western parts of what is now the Eastern Cape by the early AD era. Bantu-speaking farmers from further north established themselves in the more easterly parts a few centuries later. Numbers of scholars of rock art argue that the similarity in important respects of cattle to eland would have led them to become incorporated into San art as symbols of potency, as eland were.

If the presence of eland/cattle-like bovids at RSA SCR1 is a sign of local cultural interaction between hunter-gatherers and farmers in the past, so too, Law went on to argue, is the presence of the 'slug-like' figures, which he interprets as water-snakes. Water-animals, he told us, were important historically in the cosmologies of both the San and Xhosa, with 'control' of these animals having played a central role in rituals of rain-making and the prevention of harmful thunder-storms. Among the San, these rituals included the making of paintings of water-animals. The location of RSA SCR1 near a waterfall and pool, which is typically where rain-animals were thought to have lived, suggests that it was probably a rain-controlling site. The nature of the paintings may reflect the influence of both 'Xhosa' and 'San' beliefs.

As is well-known from the ethnographic literature, water-bulls also played an important part in rain-control rituals, and paintings of them are widely known. There is, however, an important distinction to be made, Law told us, between paintings of water-bulls and paintings of water-snakes. Water-bulls generally tend to be depicted in a broadly conventional style, with relatively little by way of variation. This is possibly because they belong to a late period in the art, when San communities over much of southern Africa were facing much the same kinds of pressure in their relations with their Bantu-speaking farming neighbours. By contrast, water-snakes are depicted in a wider variety of styles, which could mean that they were depicted over a longer period and in ways that reflected a variety of localised relationships with their neighbours.

This stimulating lecture challenged conventional thinking about southern African rock art on a number of fronts. It pointed to the potential of site-specific studies of the art for providing historical evidence on local and regional interactions between the San and other groups. The lecture drew on Law Pinto's research towards an MSc degree in Archaeology, which was awarded by Wits University in 2012. He is currently doing research towards a PhD on variations in time and space in the rock art of the Makgabeng Plateau in Limpopo Province.

Report by John Wright



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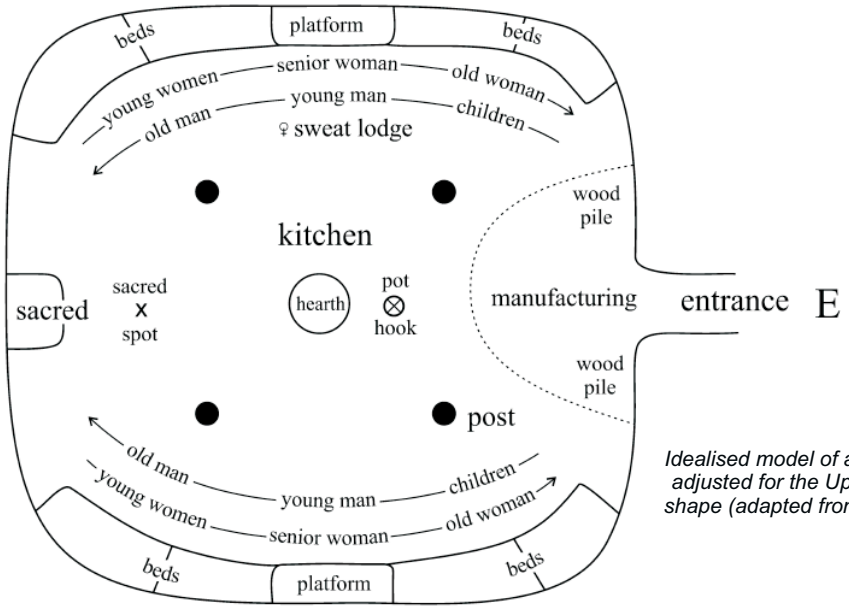
Art and archaeology in the North American plains: The Wallace site (4 September 2014)

Tom Huffman, emeritus professor in the School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand

Prof. Tom Huffman related that when the Anthropology Department at the University of Denver conducted an archaeological survey on the proposed Pueblo Reservoir on the Arkansas River in Colorado in the mid-1960s, he investigated a 13th century settlement that was most likely affiliated to the Upper Republican cluster of American Indians, the ancestors of the Pawnee, who, along with Arikara, Kitsai and Wichita, belonged to the Northern Caddoan linguistic stock. Even though the material culture of Northern Caddoan-speaking peoples was relatively simple, their intangible culture – their values, beliefs and ideals – was rich and complex.

The Wallace hamlet of rectangular lodges was situated on a bluff and the people most likely spoke Northern Caddoan. Because of this identity, Pawnee ethnography was used to interpret the organisation of space and spatial distribution of artefacts, including a rock art chamber below the bluff. Most structures yielded a fairly diverse range of artefacts, including small triangular and side-notched arrow points, an antler wrench and metapodial flesher, end scrapers, bone-hide abraders, bone awls, stone and clay tobacco pipes, globular cord-marked pottery, maize grinding stones and a fragmentary bison scapula that may have been used as a hoe. Carbonised maize and bison bone were also present, as well as white (chalk), yellow (limonite) and red (hematite) paint stones.

Northern Caddoan lodges were symbolically associated with women and the cosmos. Wooden posts provided back rests for people sitting in the kitchen surrounding the central hearth. This public eating zone divided the interior into private northern and southern sections. Women of different ages slept in separate compartments in an order that paralleled a woman's life, whereas men were arranged in the opposite cycle. In terms of work, the lodge was the principal manufacturing zone, from raw material to finished product. A senior woman organised domestic activities in each half, while men manufactured and repaired hunting and other equipment at the front. Senior women kept vegetables and meat in underground storage pits to provide for their half of the lodge, while grandmothers, as a mark of age, could keep their own store. In addition, important lodges could have a sweat lodge for women. Sweat lodges for men stood in the open, often near a stream.



Idealised model of a Pawnee lodge, adjusted for the Upper Republican shape (adapted from Weltfish 1965)

This spatial arrangement derived from a worldview that recognised the impact of cosmological forces on daily life. The arch of the roof paralleled the dome of the sky, while the easterly-facing entrance allowed the morning light to cross the central hearth, replicating the cosmic origins of humanity. In this beginning the Morning Star (god of light, fire, and war) mated with the Evening Star (goddess of night and fertility) to produce the first woman. This union was difficult, however, because four cosmic forces representing semi-cardinal directions, namely thunder, lightning, wind and clouds, protected the Evening Star. Later, the Sun (the Morning Star's helper) joined with the Moon (the Evening Star's helper) to create the first man. The four central posts of a lodge represented the semi-cardinal directions: they held up the roof as the deities held up the heavens. Moreover, individual priests were in charge of rituals associated with a sacred bundle dedicated to one of the starry deities. These bundles were the centre of a ritual system based on the life history of maize. As a rule, they contained a pipe, tobacco, sweet grass, paint and maize cobs plus, depending on the ritual, an assortment of feathers, stones, shells, arrow shafts, fire sticks, scalps and the skins of animals and birds with their heads attached so that they 'faced' a specific direction. Each bundle was owned by a chief and hung on the back west wall of the owner's lodge, above the altar. This altar, as well as other parts of the lodge, were embedded in creation myths sung in the Hako and Spring Renewal ceremonies that expressed the Northern Caddoan worldview.

Lodges differed in design, based on five interdependent principles that appear to have structured the organisation of space and the distribution of artefacts in a settlement (Principles 1 to 5):

- Cosmic forces created the structure and regularities of the universe. These lodges were the domain of priests and chiefs.
- The earth and its waters were untamed, irregular and unpredictable. These were the domain of doctors.
- Ritual places formed a framework for ceremonial activity inside and outside the lodge.
- A complex set of reciprocal relationships between people and the supernatural structured society.
- The domestic economy relied on tool kits that were manufactured and used in gender-related activities.

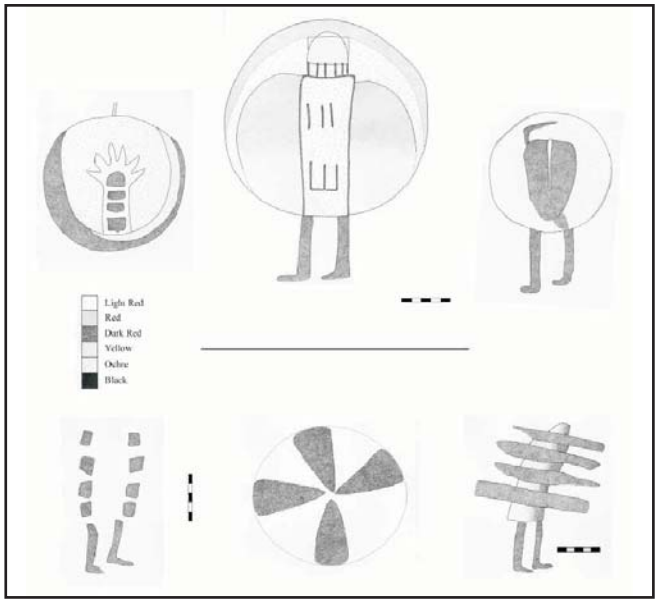
Below the hamlet on the bluff was situated a chamber that followed the spatial layout of a lodge with a double entrance: a West Unit containing shield-bearing warriors associated with dreams and visions that provided supernatural power for low-level warfare, and an East Unit where geometric images that most likely referred to the cosmological origins of humanity were emphasised. The art and artefacts of the chamber show that the ideology of the domestic economy emphasised bison hunting and maize farming, associated with doctors and priests respectively. The rock art images were painted on a 35 to 45 cm wide limestone strata on the south side of the

roofless chamber formed when part of the bluff collapsed in the distant past. A natural talus divides the chamber. Midden refuse in both units physically connects the rock art to the hamlet. The East Unit midden, for instance, contained burnt daub that must have come from lodges that had burnt down and was cleared before later lodges were built on top. It also contained paint stones, lithics, some bones, including those of two dogs, and fine cord-marked pottery, as well as over 100 virtually whole carbonised maize cobs, one of which has been dated to between 1160 and 1220. Various indicators make it clear that people must have walked down into the rock crevasse to deposit the refuse on both middens and that the middens were therefore the intentional product of ritual discard.

The contents of the two middens support the ritual interpretation. The West Unit midden yielded a few broken hammer and grindstones, many large bison and a few elk and deer bones, and nothing else. Tom believes doctors placed the bone here as part of private rituals associated with their animal mentors. As a locale for supernatural beings, bison remains could be shown (and returned) as an act of reverence and reciprocity (Principle 4), similar to the belief that the bones of the first beaver trapped should be returned to water after being completely eaten. If properly addressed, bison allowed themselves to be killed for the good of the people. Thus, by placing the bones against the cliff, doctors were 'giving back' important meat resources to the supernatural forces. It follows that the East Unit may have been associated with priests, which looked after cosmic forces and the associated bundle rituals. Most of these rituals were concerned with the fertility of the earth, people and maize. It is therefore significant that all maize was found here. This deposit also included ordinary household remains such as pottery, lithics, some bone and stone artefacts, and, importantly, an eagle-sized raptor talon. Throughout the Plains, various birds figured in ritual contexts and parts of hawks and eagles were constituents of Pawnee sacred bundles. Individual elements needed to be renewed from time to time and, because of their ritual importance, old bundle elements still required protection against dangerous powers after discard. Besides the talon, the midden incorporated seven oyster shells, which could also have figured in bundle rituals. In the Hako ceremonies, white shells signified purity and were the appropriate receptacle for preparing ritual paints. Shells also represented an early stage of creation, when water surrounded the earth. Therefore, the oyster shells and paint stones were probably also discarded elements of sacred bundles.

The contents of the two middens express the fundamental difference between priests and doctors, juxtaposing cosmic regularities in the East Unit (Principle I) with the unpredictable world of animals in the West Unit (Principle II). This fundamental division also informs the two sets of rock art. The images in the West Unit are shield-bearing warriors widely distributed across the Plains: the most diagnostic are circles with legs protruding underneath and an occasional head sticking out above. In general, the circular images represent bison-hide shields used by men in low-level warfare. From time to time small groups of men went on raiding parties to avenge the death of a relative, or obtain a scalp for religious and social purposes. Indeed, before the horse and American expansion west, offensive warfare was ritualised. Men made the shields from the thick hide on the back of a bison and then enhanced their protective power by painting images derived from dreams and visions, such as a sun symbol, images divided into quadrants and four stripes across a human figure (the number four was of the ritual significance). Thus, the overarching metaphor of the shields was supernatural protection: the potent shields protected the warrior as the warrior protected women, fields, and hamlet.

Shield-bearing warriors occur in a variety of settings: life-size images were probably made for public view, while others were ceremonial. The latter typically occurs in unusual geological formations, as it did in the Wallace complex, because it was intended to invoke supernatural forces. The act of painting itself was a ritual practice. It is noteworthy that at least nine of the shields were deliberately incised. Perhaps the painters themselves incised the images to access the supernatural forces that lay behind the rock face. Alternatively, the paint itself held power and doctors used it. Whatever the case, the imagery represents an attempt to transfer power from the supernatural to people. The rock art in the East Unit can be expected to focus on fertility and cosmic regularities in parallel with the content of the associated midden. First are the images: geometrics dominated and occurred only here. They are unusual even in the wider region, and therefore require a new framework for interpretation, one based on Caddoan cosmology. One must turn to the pivotal Spring Renewal or Thunder ceremony of the Pawnee that laid the foundation for all other priestly rituals. When the two stars known as the 'swimming ducks' first appeared in March, along with rolling thunder and the Pleiades in a certain position, it was time for the Thunder ceremony. This ritual explains the creation of the world by cosmic forces and the creation of humanity through the union of the Morning and Evening stars. Cosmic forces demonstrate this process on earth for humanity's benefit by the transition from winter through spring to summer. In winter, the earth has form but not life until lightning starts the process, as it did at the beginning of the world.



Shield-bearing warriors in West Unit. Redrawn from sketches by Malcolm Withers courtesy of Museum of Anthropology, Denver University.

A tri-parte image near the entrance to the East Unit appears to relate directly to this time. It combines three geometric forms on a dark background. The order of the colouring on each – white, dark and red – parallels the stripes on the tail feathers of wild turkeys, which signify an underlying theme in Pawnee culture: war and fertility. Moreover, the bird's natural behaviour is a homology for creation. Hens and toms congregate in winter, when the earth is symbolically dead, and then the toms separate to call the hens with loud booming sounds that carry a long distance. This drumming lasts for about one hour before dawn and for about one month centred on the spring equinox. This is precisely when Pawnee priests watched the skies and listened for the rolling thunder that heralded the Spring Renewal ceremony.

The correlations between the painted imagery that can be interpreted and the contents of the two different middens show that the chamber was organised like a lodge. The front of the East Unit contained production debris and bundle parts as well as painted images with cosmic creation themes: turkey feathers (planning creation) and the cosmic snake (a step in creation). In contrast, the West Unit contained war images similar to the emphasis on a west entrance to the lodge of war societies. The bone bed was the result of the activity of doctors and their reciprocal relationship

with their animal spirit mentors. Because the West Unit was the result of male activities, the East Unit may have had female connotations. Whatever was the case with gender, the rock art chamber expressed the fundamental principles of early Caddoan society, manifesting the ideological significance of bison and maize, doctors and priests, war and fertility.

Tom ended by stating that the artefact inventories on their own cannot address the indigenous worldviews that created the artefacts and other features. In the first instance these artefacts are the result of daily behaviour. For Northern Caddoan, and indeed all cultures, indigenous values, beliefs and ideals influenced and in some cases determined such behaviour: hunting bison, cultivating maize and constructing lodges were inseparable from ritual.

Reference: Caddoan archaeology on the high plains: a conceptual nexus of bison, lodges, maize and rock art, by Thomas N Huffman and Frank Lee Earley. *American Antiquity* 79(4), 2014: 655–678.

Report by Reinoud Boers

Making 'old Sotho custom', 1900–1935: New light on a forgotten ethnography (2 October 2014)

Professor Lize Kriel, Department of Visual Arts, University of Pretoria

Historical archaeologists in South Africa are increasingly turning to ethnographic sources of the 19th and early 20th centuries to help them interpret the material remains they uncover. Until recently they have paid relatively little attention to records made by German missionaries in the former Transvaal, partly because of the difficulties many of them face in working with the language and partly because the original records are often scattered between different repositories, both in South Africa and in Germany.

Prof. Kriel's talk in this field broke new ground for the Archaeological Society. It focussed on the rich collections of papers left by Carl Hoffmann of the Berlin Missionary Society (BMS), who worked among the northern Sotho-speaking peoples of the Transvaal from 1897 to 1943. For the past four years Lize Kriel, who trained as a historian at the University of Pretoria, has been involved in a project, headed by Dr Annekie Joubert of the Centre for African Studies at Humboldt University in Berlin, to digitise, index and make accessible Hoffmann's papers, which are held in various archives and libraries in Berlin and Pretoria.

To many people, this might sound like a dry and esoteric subject: in her presentation Prof. Kriel made it come alive through anecdotes about the personalities involved and the use of copious illustrations of people and places. She gave particular attention to the relations between Hoffmann and his African interlocutors, who played a crucial role in interpreting 'Sotho custom' to him.

Missionaries of the BMS, she told the audience, operated over much of the area from the Vaal River to what is now southern Zimbabwe from the last quarter of the 19th century until the mid-20th century. They were encouraged by Berlin to keep detailed records of events in the areas where they worked, and of the customs and practices of the people they were trying to convert. Hoffmann stood out as a particularly enthusiastic amateur ethnographer and a remarkably prolific writer, and also as an active photographer and illustrator. He spent some years on mission stations in southern Zimbabwe, near Pretoria and in Sekhukhuneland before settling at the Mphome-Kratzenstein station in the Woodbush area, where he remained for 30 years. He published mainly in German for Christian congregations in his home country and in Sepedi for his mission field respectively, but also wrote popular articles in English and Afrikaans.

Where are Hoffmann's writings to be found today? His ethnographic books are held in academic libraries, while his articles can be accessed in back numbers of journals with resounding titles like *Zeitschrift für Kolonialsprache*, *Zeitschrift für Eingeborenensprache* and *Afrika und Übersee*. His correspondence with the BMS, together with his photo albums, are held in the society's archives in Kreuzberg, Berlin, his private diaries (donated by his descendants) are in the Unisa archives, and his and his African interlocutors' correspondence with government officials is in the National Archives in Pretoria.

The project has brought together copies of all this material in a digital repository hosted by the Humboldt University and will be accessible to the public within the next year. In the meantime, the project is publishing an annotated edition of the ethnographic articles that Hoffmann wrote in Sepedi and in German between 1912 and 1962. The original Sotho texts, which were collected mainly in the Woodbush area, will now appear alongside new English translations. In their annotations the editors will make a critical appraisals of the texts, with a focus on the historical contexts in which they were recorded, and on biographies of the particular interlocutors who narrated them. In the eyes of the project members, the book should serve as a valuable addition to the growing body of source books that are giving new perspectives on the histories and cultures of African societies in South Africa.

Prof. Kriel's talk was followed by a lively question time. Her comment afterwards was, 'What an empathetic and interested group of people to address!'

Report by John Wright

Film: 'The Colour of the Ovahimba' (13 November 2014)

Dr Riaan Rifkin, Institute for Archaeology, History, Culture and Religion, University of Bergen, and Evolutionary Studies Institute, University of the Witwatersrand

Discoveries of red ochre in Middle Stone Age deposits over the last few years have generated a debate among archaeologists about ochre's possible uses in the distant past. Some think that people used ochre mainly for decorating their bodies, and perhaps their clothing and other artefacts for ritual purposes. Others believe that ochre was used primarily for utilitarian purposes, such as making mastic, curing animal skins and protecting the body against the sun. Still others argue that it is impossible to make a clear distinction between symbolic and utilitarian purposes, and that ochre may well have been used for both.

At the last of the Trans-Vaal Branch's talks for the year, Dr Rifkin presented a documentary film on a field trip made recently by a small group of scientists and museum personnel from France, Namibia and South Africa to conduct research into the use of red ochre among the Ovahimba people of northern Namibia. Himba women are known for using red ochre to colour their bodies and their clothing. The aim of the trip was to find out if ethnographic research of this kind can help to shed light on the practices of people in other parts of the world 100 000 years ago and more. Dr Rifkin, who received a doctorate from the Institute of Human Evolution at Wits in 2012, took part in the trip as one of the scientific advisers.

The film documents the visits the scientists made to several Himba villages near the Kunene river, which forms the border with Angola. It goes on to discuss the analysis of red ochre that was subsequently done in laboratories in Pretoria and Bordeaux. It reveals how groups of women travel for several days to the ochre sites, some of which are reached by boat across the Kunene, to dig out the ochre. Three or four days digging yields 30 kg of ochre, enough for one person's needs for two years. They transport the ochre back to their homes by donkey cart or on their heads. Some

of it they keep for their own use; the rest they sell to other women at a rate of two tins of ochre for one goat.

The film shows how the ochre is prepared for use as an unguent. First the rock is broken up into small pieces, then these are crushed into fine powder with special grindstones. The flat, heavy, lower grindstones are sourced near the villages, while the upper grindstones are carefully selected from rounded cobbles along the banks of the Kunene. To make the oil for the unguent, the women use milk from the village's cows. They separate out the cream, which is then boiled up to produce a clarified butter. This is stored and mixed with the ochre powder as needed to form a red grease. The women smear the grease on their skins. They see this as a way of decorating their bodies and to keep clean. They also use it to coat the braids, which are either synthetic or made from goat hair and fixed into their hair. This is done every two or three days, using 60 g of ochre paste at a time. Men also smear their bodies on some occasions. Both sexes see the red colour as important for signalling certain kinds of social positioning and for conveying messages to the ancestors. At a more mundane level, people often eat pieces of ochre, which serves as a healthy intestinal detoxicant. As the film shows, research has demonstrated that the ochre is also useful as an antiseptic, as protection against certain insects and as protection against the sun. Among the Ovahimba, ochre has both symbolic and utilitarian functions.

In making documentary films about Africa for mainly foreign viewers, producers and directors often find it difficult to avoid using *National Geographic*-type clichés of romantic sunsets, cavorting wild animals and exotic native dancers. Fortunately, there were not many bongo-bongo moments of this kind in the film and it succeeded in putting the scientific side upfront. It could perhaps have done more to portray the Ovahimba not as 'tribal traditionalists' but as people firmly linked to the modern world of towns, trade and wage labour, but overall it made for informative and entertaining viewing.

Dr Rifkin introduced the film with a brief talk on his own perspectives on the field trip and on the scientific research that continues to be done on the possible uses of ochre in the past. The lively questions that followed the film showed that many members of the audience would have been happy to hear a lot more from him.

Report by John Wright

The Frobenius expedition to Natal (5 February 2015)

Dr Justine Wintjes, School of Arts, University of the Witwatersrand

Dr Justine Wintjes is a specialist in the area where art and archaeology intersect. She has recently been awarded a three-year grant from the National Research Foundation (NRF) to work on the documentary and visual materials collected by the German ethnographic expedition to southern Africa led by Leo Frobenius from 1928 to 1930. Leo Frobenius was a German anthropologist and ethnographer who developed a passionate interest in Africa and completed 12 expeditions between 1904 and 1935. On these, he had encountered rock art in Algeria and Sudan, and he therefore dedicated his ninth expedition to exploring rock art in southern Africa. Leo Frobenius is said to have visited a shelter in the northern Drakensberg, which he called Cinyati but which later became known as the eBusingatha shelter. He published the results in 1931.

Justine focussed her talk on the eBusingatha shelter, which was easily accessible and over time was frequently visited by diverse travellers and local inhabitants, including celebrities such as Jan Smuts and Walter Battiss. It has been recorded by South African archaeologists since the 1940s, particularly by JC van Riet Lowe, who recorded six panels and described it as a 'classic prehistoric art gallery'. But the site's accessibility proved its downfall and resulted in vandalism to the extent that the paintings were under threat. Consequently, in 1947, officially sanctioned removals took place. Panels were cut from the rock face but now lie inadequately documented and in pieces in the archives. Subsequently, a major rock fall altered the configuration of the cave, making its former layout difficult to imagine.

And so for Justine began the painstaking work of going through the massive archive housed in Frankfurt, Germany, and written in German. Frobenius was only interested in the bigger picture and often details are not recorded and information is missing. Material was also lost as a result of bombing during the Second World War. The archive has now been moved to the Goethe University. But Panel A is still in situ at the eBusingatha shelter and Justine was able to confirm its position from two sets of photographs. It had been thought that the jumbled rock stemmed from the removal of the panels but the photographs revealed that the fallen rocks had been there for much longer and that paintings had been made on these. There are more photographs of the site and these are a valuable resource since the relationship between the panels was not recorded. The photos are of excellent quality and are undergoing digital restoration.

Frobenius was an iconic figure in his day but he was not working in a vacuum and followed in the footsteps of earlier research. He was accompanied by a team of artists and ethnographers who were often not named. Though energetic and revered in his time, he has more recently become a contradictory figure because many of his interpretations have been eclipsed by later research, with the result that his work is neglected and not fully recognised. However, the rock art copies are very well done and deserve more attention. They are frequently attributed to him but in South Africa he did not produce all the copies himself, or even visit all the sites he published. The larger part of this pictorial archive is housed at the Frobenius Institute, but a selection of secondary works was sold to the South Africa government in 1931, who bequeathed the collection to the South African Museum in Cape Town, where it is still kept today. Some of this material, including a 4 m long painting, was included in an exhibition curated by Pippa Skotnes and Petro Keene entitled 'Rock art made in translation: Framing images from and of the landscape', mounted at the Iziko South African Museum in 2010/11.

The Ain Safsaf rock art panel at El Rich/Aflou in Algeria. Two artists in the process of copying a large elephant group.
Photo by Karin Hissink.
Copyright: Frobenius Institute, Frankfurt am Main, Germany.

To cover more ground, the Frobenius expedition split up into smaller groups to document numerous rock painting and engraving sites. Justine wanted to understand what these excursions were like. Travel journals reveal that the Natal leg of the expedition was undertaken by three women on their own, while Frobenius himself travelled further north. The women were Maria Weyersberg, Elisabeth Mannsfeld and Agnes (Susanne) Schulz. Elisabeth Mannsfeld later married and settled in Southern Rhodesia and became well-known as Elizabeth Goodall. In early 1929 the intrepid trio caught a train from Johannesburg to Van Reenen via Ladysmith to see a shelter they must have heard about. But they were disappointed to find graffiti overlaying poor-quality paintings, so instead they documented aspects of local material culture. From Ladysmith they caught a railway bus to Bergville and travelled on to the Natal National Park Hotel (later the Royal Natal National Park Hotel, now in ruins). Here they stayed in rondavels and visited sites on horseback with a guide.

Their choice of sites would have depended on information from local people and accessibility. It was January and conditions could not have been easy. Documents reveal that on 28 January they visited Cinyati shelter and spent the following week recording the site. Several of the copies they made were published, including an elephant-headed therianthrope. However, more copies, field notebooks and photographic negatives lay unexplored in the Frankfurt archive. Since the configuration of the shelter has changed so dramatically since this time, the assemblage of recorded material is invaluable in the digital restoration of the site. The copies of the paintings were highly accurate for their time. The subject matter would have been mysterious to the artists and selectivity would have played a part in their recording. Nevertheless there was no attempt at interpretation and gaps were not filled in. By taking artists' copies to the site, a researcher is able to see more.

Although Frobenius has slipped into the pages of history, the material collected under his direction is enjoying a new lease of life. It is proving a valuable resource in recapturing what has been lost and is finally getting the attention it deserves. **Report by Pamela Küstner**

Concluding the Stone Age: The final stages of the Later Stone Age in the Greater Mapungubwe Landscape (5 March 2015)

Dr Tim Forssman, Department of Anthropology and Archaeology, Pretoria University

In a lively and entertaining presentation, Dr Tim Forssman gave us a new way of looking at the archaeological history of the broad region round Mapungubwe. In the public mind, this history is dominated by the story of 'big sites' associated with the expansion of Iron Age farmers, from Schroda to K2 to Mapungubwe itself. Tim Forssman showed us how the history of farming communities in the area was from the start interwoven with the history of Bushman groups associated with Later Stone Age (LSA) material cultures.

He explained that what he calls the 'Greater Mapungubwe Landscape' refers to the contiguous territories on both sides of the Limpopo River in northern Limpopo Province, south-western Zimbabwe and south-eastern Botswana. Iron Age research in this area began in the 1930s, while LSA research started much more recently. The first LSA excavation, published in 2000, was carried out by Simon Hall (now at the University of Cape Town) in the Little Muck shelter, south of the Limpopo. From 2005, Bronwen van Doornum (now with the KwaZulu-Natal Museum in Pietermaritzburg) excavated a number of other shelters, also south of the Limpopo, and worked out a sequence of five phases of LSA occupation of the region. These were the early pre-contact phase, dating from about 12 000 years ago, the later pre-contact phase, the early phase of contact with farmers after about AD 350, the Zhizo phase from about AD 900, and finally the Leopard's Kopje phase from 1000 to 1300, during which political domination of the region passed to ruling farmer elites, first at K2 and then at Mapungubwe Hill.

In the third, fourth and fifth phases the Bushman inhabitants of the area, whose presence is reflected in LSA material remains, were in varying degrees of contact with incoming farming peoples. Dr Forssman's own research has focussed on the LSA in these phases in the Northern Tuli Game Reserve in Botswana. He is the first archaeologist to have done a detailed survey of the distribution of LSA sites in this area, partly by vehicle but also by hard foot-slogging. He selected seven sites for excavation, deliberately choosing not only well-known 'big sites' in rock shelters, but also open-air sites. These are much more difficult to find even though they make up more than 80 per cent of the 186 LSA features recorded by him, and are important for giving a more varied picture of Bushman material culture than can be obtained from excavating at rock shelters alone.

Tim Forssman found that the arrival of farmers in the Mapungubwe region after about AD 150 had little impact on LSA material cultures, presumably because the farming population was small and thinly spread. From about AD 900 more intensive interaction between hunter-gatherers and farmers began to take place as new groups of farmers arrived and began to establish their political domination in what was becoming a zone of expanding international trade, with ivory and gold being exchanged for beads, metal goods and other exotic items. Dr Forssman's excavations revealed that LSA hunter-gatherers responded to these developments in a variety of ways, ranging from irregular contact to the provision of labour and ritual services. While some groups of LSA people might have moved away, others took up residence with farming communities and were eventually assimilated into them. The overall result was a sharp decline in a visible LSA material presence after about AD 1300.

In conclusion, Dr Forssman lifted out three issues. First, archaeologists (and the readers of their papers) should be wary of thinking of the LSA in any one region as a single, homogeneous culture. LSA settlement patterns and toolkits differed from one site to another, in part because of variations in interaction among hunter-gatherer groups, and between hunter-gatherers and farmers. Second, the demonstrable variety of LSA cultural patterns over a period of several thousand years should make researchers wary about the common practice of using analogies from ethnographies recorded in a single region – the Kalahari – in a brief period of the mid-20th century to interpret Bushman cultural remains from other times and places. And third, archaeological research on the LSA needs to move away from excavating at 'big, pretty sites' to investigating cultural patterns over wider regions. An hour after the end of the lecture, members of the society were still engaged in informal discussion with Dr Forssman, a tribute to his success in capturing the interest of his audience. **Report by John Wright**

Unfortunately, no reports are available for the following lectures and outings during the period covered by this issue of *Artefacts*:

- *Inside the Mapungubwe Archive,* by Sian Tiley, chief curator of University of Pretoria Museums (Trans-Vaal Branch Pretoria lecture of 14 August 2014)
- *Modern humans in southern Africa: the place of the Khoisan,* by Professor Alan Morris, Department of Applied Anatomy and Biological Anthropology, University of Cape Town (Lecture at the Annual Symposium of the Trans-Vaal Branch on 23 August 2014)

ANNUAL SYMPOSIUM

(23 August 2014)

From Creation to the Cradle of Humankind: A journey through the origins of our hominid ancestors

Introduction to hominin evolution: From *Sahelanthropus* (Toumai) to *Homo sapiens*

Professor Francis Thackeray, Evolutionary Studies Institute, University of the Witwatersrand

Prof. Francis Thackeray began his presentation with a slide depicting the diversification of primates in the last 60 million years. About 55 million years ago (mya) humans shared a common ancestor with bush babies, 20 mya ago with baboons, and eight mya with chimpanzees. He mentioned that to date 21 or more hominid species from the last seven million years have been discovered, and nine *Homo* species from the last 2,5 million years. With a sense of humour, Francis Thackeray suggested that the King James Revised Version of the Bible (revised by the king and his advisers 400 years ago) might possibly be ready for revision again. 'For example, the very first sentence in Genesis I might read as "In the beginning, 14 billion years ago", with great birds of the air (like *Archaeopteryx*) flying in more than 100 mya, and other beasts like the great whales of the sea (such as *Pakicetus*) swimming in more than 50 mya on an evolving earth.'

Francis discussed the complexity of taxonomy, mentioning the work that Charles Darwin did on barnacles. This had led him to recognise that when sample sizes increase, boundaries between species break down. In *On the Origin of Species*, Darwin emphasised the need to quantify the amount of difference between species. In 1871, in *The Descent of Humankind*, Darwin recognised that –

1. of all the living primates, it is the chimpanzee and gorilla that are most similar to humans;
2. chimpanzees and gorillas are distributed only in Africa;
3. therefore, the ancestors of chimpanzees and humans originated in Africa.

According to Thackeray, palaeontological evidence for this common ancestor has not yet been discovered, but believes that with more fossils being found we are now in a very exciting period. He then went on to detail the fossils that have been discovered in Africa, starting with *Sahelanthropus tchadensis* (Chad, from between six and seven mya) and *Orrorin tugenensis* (Kenya, about six mya). According to him, these are the closest we have yet come to finding the elusive common ancestor. The next genus was *Ardipithecus* from Ethiopia, which is represented by two species, *A. kadabba* (about 5,7 mya) and *A. ramidus* (around 4,5 mya), and may have been arboreal.

He then discussed the diversification of australopithecines, mentioning that at least 10 species are known in the genus *Australopithecus*, from *A. anamensis* (Kenya, 4,2 mya) and *A. afarensis* (represented by 'Lucy' in Ethiopia, 3,2 mya) through to *A. gahri* (Chad, 2,5 mya). He listed the australopithecines in South Africa, dated to the two to three mya period. Among these are the Taung child, *A. africanus* from 2,5 mya, discovered at Taung in 1924 and described by Raymond Dart in 1925, and 'Mrs Ples', *A. africanus* from at least 2,1 mya, discovered at Sterkfontein in 1947 by Robert Broom and John Robinson. The first fossils discovered by Broom in 1936 were initially called *Plesianthropus,* meaning 'almost human'. They were later recognised as *A. africanus*. Broom assumed that 'Mrs Ples' was female because of the small canine sockets. It is now thought that the fossil may be of a male as it has a very prominent glabella and may be of an adolescent as the third molar is still open. More recent discoveries had included 'Little Foot', *A. prometheus,* from Sterkfontein, older than two and possibly three million years, and 'Karabo', *A. sediba,* from Malapa at 1,97 million years.

There is another fossil found at Sterkfontein, Swartkrans and Kromdraai, namely *Paranthropus (Australopithecus) robustus*. The first specimen at Kromdraai was described in 1938 and is at least 1,95 million years old. At these sites there is also evidence of early *Homo.* At Kromdraai, stone and bone tools 1,8 million years or older have been found. Swartkrans yielded both *A. (Paranthropus) robustus* and early *Homo* (both at 1,7 million years), as well as tools and evidence for the controlled use of fire more than a million years ago.

Evidence of early *Homo* and robust australopithecines in East Africa was described more than 50 years ago by Richard Leakey, John Napier and Phillip Tobias. But these hominin specimens are currently being reassessed and the transition between *Australopithecus* and *Homo* is currently being debated worldwide in palaeoanthropology. Prof. Thackeray said that he and others have raised the question as to whether at least some specimens attributed to *H. habilis* may be considered to be australopithecines. The transition between *H. habilis* and *H. erectus* is also being debated, especially in the light of fossils from Dmanisi (Georgia) where five skulls older than 1,8 million years may reflect the kind of diversity found in contemporaneous hominin fossils from South Africa and East Africa.

So-called 'anatomically modern' *Homo sapiens* radiated out of Africa in the Late Pleistocene and are associated with relatively recent population movements into Europe, Asia, the Americas and Australia. Prof. Thackeray emphasised that the classification of human ancestors is especially challenging since there are not necessarily clear boundaries between species. Referring back to Darwin's comment in 1859 that there is a need to quantify the 'amount of variability' in a species, Francis Thackeray briefly discussed his statistical (probabilistic) definition of a species, associated with the so-called 'Thackeray constant' (T = -1,61), which has the potential of addressing questions concerning taxonomy.

Report by Anne Raeburn, with acknowledgement to Prof. Thackeray

The 'successful' hominids: Out of Africa 1

Professor Kathy Kuman, School of Geography, Archaeology & Environmental Studies, University of the Witwatersrand

Prof. Kathy Kuman focused her talk on migration from Africa into Europe and Asia, discussing regional development up to the time of *Homo sapiens*. She explored what defines a successful hominid. Success in leaving Africa was made possible by a series of glaciations that led to the dropping of sea levels, exposing land ridges that became land bridges

across which hominids were able to walk. The first populations to leave were closely related to *H. habilis* and made simple core tools. Individual *H. habilis* fossils have been found at Hadar in Ethiopia (2,34 million years ago - mya), in Kenya (1,9 mya) and Tanzania (1,8 mya), and at Swartkrans (2,0 mya).

Prof. Kuman then showed a map illustrating some of the earliest sites discovered outside Africa. At Dmanisi, Georgia, at the gate to Europe, Mode 1 tools dating to 1,85 mya have been found. There is evidence of repeated occupation over a period of 80 000 years. The area was probably warm with dry, temperate grasslands and few trees. It is thought that hominids entered Eurasia during a time of climatic change. *H. georgicus* is similar to *H. habilis*, being short in stature but with modern body proportions and characterised by variability in the shape of brow ridges and mandibles. This ancestral stock spread eastward into Asia. Members of families had strong bonds between them and cared for their aged. A man of 40 years would have lost his teeth and could not have survived without help from his family.

At Modjokerto in Indonesia, the oldest hominid found is dated at 1,8 mya. The infant skull has large brow ridges and a retreating forehead. Compared with African hominids of a similar age, the cranial traits are more primitive. One million-year-old, Mode 1 artefacts have been recovered from river bank deposits and Acheulean tools dating to 0,8 mya have been found.

China has hominid remains dating to 1,7 mya. Yuanmou in the south has the earliest core and flake tools but these were not found in context. There were no skulls, only incisors. A much better record has been found at Nihewan (1,7 mya), which is considered to be the Olduvai Gorge of China. Here there are 19 sites. The latitude is far north and this would have been a harsh place to live in the winter. Fossil pollen has shown that the vegetation changed greatly during that time. Seasonal occupation is proposed, with habitats along the lake shore and river. At Majuangou, stone tools dating from 1,7 to 1,0 mya have been found in four layers. Apart from simple cores and flakes, two fossils interpreted as *H. habilis* were unearthed. It appears that this species persisted over time in protected areas of China.

By 1,7 million years a more advanced hominid was living in Africa, which was absent in Asia. This was *H. ergaster*, who made early Acheulian tools, i.e. hand-axes and cleavers, and was present at Swartkrans. By 1 million years African hominids exist with both *H. ergaster* and *H. sapiens* traits.

H. erectus was a successful species. In Indonesia, these fossils span the period from 1,8 mya to 40 000–27 000 ya. Zhoukoudian in northern China is the country's most famous *H. erectus* site, with more than 40 fossils having been found. Some 40 m of sediment has revealed a small tool industry where bipolar flaking (hammer and anvil method) was employed. No hand-axes or cleavers have been found.

The question is asked whether there are any Acheulian hand-axes in China. There are three major potential hand-axe regions situated in sub-tropical monsoon, sub-tropical and warm temperate areas. On the whole, the climate is humid and the red clayey soil does not preserve bones well. Bone hand-axes and picks are often weighty and sink deep into the ground. The poor quality rock available may have led to 'tongue-shaped' distal-end hand-axes rather than the more traditional Acheulian ones. There is an absence of cleavers, but this can be explained by the lack of suitable rock. Considering the possible migratory routes, there may have been genetic mixing or a transfer of western technology into China.

Of the three Chinese hand-axe regions considered, the first is at the Bose Basin in southern China (0,8 mya), where tongue-shaped axes and heavy picks have been found but no cleavers. The items are large but often flawed. Because of the type of rock it would have been difficult to strike large flakes. In the Luanon basin in central China (0,8 mya – <0,5 mya), where the habitat was warm and temperate, there was good-quality quartzite and cleavers are numerous. The Danjiang Reservoir in central China (0,8 mya – 0,4 mya) had four terraces and crude proto-Acheulian hand-axes have been found.

It is thought that the lack of suitable raw materials for making stone tools was influential in the late development of the production of cleavers and hand-axes in China. A parallel factor might have been the relative isolation of China from the main migratory route out of Africa. There might have been some interbreeding between different groups, and there was probably a gradual expansion out of Africa from two million years ago, rather than there being just one migration.

Report by Pamela Küstner

Out of Africa: The sequel

Professor Gerrit Dusseldorp, Centre for Anthropological Research, University of Johannesburg

Dr Gerrit Dusseldorp stressed that ideas about the migration out of Africa by early hominids are constantly evolving. While early researchers suggested a single migration of *Homo erectus* out of Africa and the subsequent evolution of *Homo sapiens* in Africa and Asia, it is now thought that the migration probably happened in a haphazard way at different locations and over a long period. This accounts for the fact that archaic human fossils occur in places like Europe (Neanderthals) and Asia (Denisovans). Climate change is suggested as the initiator of these tides of migration. Cold spells caused oceans to freeze, sea levels to recede and land bridges to appear that archaic humans used to migrate.

Fossil evidence indicates that various archaic humans inhabited the earth at the same time. In Israel both *H. sapiens* and Neanderthal fossils have been identified. Rather than predating the *H. sapiens* fossils, as used to be thought, the Neanderthal fossils are younger, suggesting that they replaced the original *H. sapiens* population. Neanderthals migrated from the Middle East to Europe and inhabited Europe for about 40 000 years, indicating that they were a successful species. Their demise about 10 000 to 20 000 years ago is thought to be linked to an ice age event, exacerbated by a low population density.

Genetic studies have been helpful in tracing the origins of humans. Mitochondrial DNA suggests that humans have their origins in East Africa where 'mitochondrial Eve' lived about 150 000 to 200 000 years ago. However, chromosomal DNA suggests that 'chromosomal Adam' originated in West Africa. *H. sapiens* fossils exist that predate 'mitochondrial Eve'. This occurs because fossil evidence is very rare and these fossils do not represent the 'basal' population of humans.

Evidence such as the existence of art forms, and the sophistication of tools and weapons, has also been used by archaeologists to argue for the migration and development of humans, but tracing human development through this channel is problematic. Development is linked to the needs of the community at any given time and many factors play a part in developing the complexity of populations, ranging from population density to the availability of food. Vanishing complexity does not equal vanishing intellect. Social learning takes place more effectively in bigger groups; small groups can lose their skills or complexity. Consider the evidence found at Howieson's Poort where bows and arrows, a more sophisticated weapon, were replaced by simpler spears. Researchers suggest that the technology used to catch prey changed as the availability of prey changed. Climate change, population growth or overhunting may have been

responsible for the fact that duiker, which were hunted with bows and arrows, were replaced as food for humans by larger animals that were easier to hunt with spears.

It was probably dispersal rather than colonisation that was responsible for migration out of Africa. Genetics suggests that *H. sapiens* migrated along the edge of the Arabian Peninsula and then to Europe. The reason why they replaced others is possibly because they were smarter and had the ability to indulge in modern behaviour, such as making needles, sewing clothing and planning.

Report by Louise MacKechnie

The emergence of symbolic thought

Professor David Lewis-Williams, Professor Emeritus, Rock Art Research Institute, University of the Witwatersrand

Prof. Lewis-Williams maintains that today much archaeological interest centres on the origin of modern human behaviour, of which modern ways of thinking are obviously a key part. Clearly, early australopithecines did not have all the thought processes that present-day human beings have. But how did they differ from us and when did the changes take place? Immediately these questions put us in a definitional morass. What do we mean by words like 'modern', 'mind' and 'symbolic'? His talk identified some of the problems that archaeologists face and then compared two types of being who lived side by side in Western Europe: Neanderthals and *Homo sapiens*. His talk resulted in more questions than answers.

The emergence of symbolic thought is a characteristic of modern human behaviour. It includes abstract thinking; depth of planning and drawing on past experience; behavioural, economic and technological innovation; symbolic behaviour; and complex language that consistently uses past, present and future tenses. Modern humans are characterised by the presence of general as opposed to simple modular intelligence. Social intelligence is shown in social relations. Natural intelligence is shown in an awareness and use of the environment. Technical intelligence is shown in multi-stage artefact making. Linguistic intelligence is shown in language. General intelligence is a mix of social and natural intelligence and leads to such behaviour as the use of totems and a belief in therianthropic beings like the Minotaur.

David Lewis-Williams sees an egalitarian society like the San as a precursor to modern hierarchical society. He says that the shamans have a privileged position even in an egalitarian society. In modern, historical, stratified societies kingship entitles royalty and aristocracy to more privileges than the rest of society. Whether egalitarian social relationships form seeds of hierarchies is certainly debatable and gives rise to many questions. Where does modern human behaviour comes from? David maintains that seeds of such behaviour must lie in a pre-existing condition. For example, the symmetry of hand-axes may mirror the symmetry in natural phenomena like birds' nests.

The modern human ability to use symbols that are arbitrary and socially constructed may first appear at sites like Blombos Cave at about 77 000 BP, where incised ochre may show extra-somatic storage of knowledge similar to that of today's musical notation. Seventeen thousand years ago at Rouffignac Cave in France, Upper Palaeolithic cave bears left claw marks in the mud walls and humans 'copied' the marks in what may be a symbolic, if arbitrary, way. There is no way at present to know what these symbolic marks mean.

David Lewis-Williams asked how two species of *Homo* living side by side in Western Europe differed. *Homo sapiens* and Neanderthals lived for a long overlapping period between 45 000 and 35 000 BP, when Neanderthals became extinct. What the Neanderthals borrowed from humans were techniques for the making of stone tool blades and end-scrapers, and bone and antler tools. They probably used them for the same purposes as humans did. Neanderthals also made personal ornaments and buried their dead but may not have done so for the same reasons humans did. What Neanderthals did not borrow from humans were advanced hunting strategies, painting and engraving, and burials with elaborate grave goods.

The question that arises is why did Neanderthals not borrow everything? Differences in types of consciousness as described by Gerald Edelman may be the answer. The 'Wheel of Change' in modern human behaviour is driven by a combination of natural selection from random gene mutation, higher order consciousness, complex language, complex social relationships and technology. David called for inter-disciplinary research in the disciplines of archaeology, neuropsychology, ethnography, social theory and ethnology to try and find answers to his questions about how, when and why modern humans developed their mental abilities and complex behaviour.

Report by Hilary Geber

Telling tales of bones and glory

Professor Eric Worby, Humanities Graduate Centre, Wits University

Prof. Eric Worby described himself as a social anthropologist who 'examines and interprets social and cultural life in all its diversity in the recent past and unfolding present'. With this focus, it is not surprising that his lecture at an archaeological gathering focused on the relationship between the discoveries of hominid bones and the present day. Furthermore, as an American, he posited that he was able to put a 'cat among the pigeons', the pigeons for this purpose being the audience that comprised mainly white South Africans. He asked what it was that fascinates us about the changing stories of human origins. Such stories have been generated by the medium of myths by all human societies – the biblical stories of Genesis and Adam and Eve being good examples.

As a metaphor for this obsession he described in depth the discovery and the sensational promotion of *Australopithicus sediba*. He compared it to a 'Boys' Own' adventure story in which Lee Berger's young son finds the skeleton of another boy about his own age, which 'he reports joyously to his father', who happens to be a leading archaeologist. There was world-wide fascination with this discovery, which would not have been the case if the skeleton had been that of, say, a monkey. He contemplated on why there should be this sentimental pairing of a proto-human and a 21st century child. Was it because of a desire to share an identity between the discoverer and a two-million-year-old forebear? He asked himself where and how racial difference figured in the past, and posited that the racial controversies of the past contributed to the significant interest in South Africa.

Eric Worby suggested that the Victorian obsession with collecting fossils, which one author had described as 'imperial bric-a-brac', was fundamental to the views of the middle classes (in England) in the 19th century, who understood themselves to be at the forefront of historical development. In his opinion the Wits Origins Centre displays were a continuation of this narrative in that, despite the strenuous efforts to represent and enlist San individuals as experts on their own culture, one could not help but recall the deployment of Khoisan people in lurid exhibitionary practices in the 19th century and then their salvage in the 20th.

He returned again to the racial significance in the quest for a name for a new discovery. The

naming of an object in science gives a sense of ownership. Hence after a prestigious naming competition, *Sediba* was given the name 'Karaba'. Eric Worby proposed that the adoption of a name helps to answer a set of troubling questions of race and difference in post-apartheid South Africa. He concluded that the discovery of and association with *Sediba* gives a sense of redemption to those white liberal South Africans who 'find themselves without an obvious claim in South Africa as home'. To quote Prof. Worby: 'The redemption lies in the figure of a young white boy finding kinship with the mute bones of human ancestor bones that are far too old to be inflected by the mark of race and that are hence incapable of bearing testimony to a much more recent history of injustice and complicity with the privileges conferred by the legacy of colonialism and apartheid.'

Eric suggested that to discover why we have our interest in bones and human origins we should turn the lens on ourselves and ask how we allow science to merge into story telling in ways that help us to resolve deeply discomfiting realities about our political prejudices and longings.

Report by John McManus

EXCURSIONS AND OUTINGS

Excursion to ancient Mapungubwe (19 to 24 September 2014)

Led by Tom Huffman, emeritus professor in the School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand

Friday 19 September

Participants travelled independently to the Mapungubwe National Park at the juncture of the Limpopo and Shashe rivers, the first World Heritage Site to be declared in South Africa. After booking into the comfortable cottages at Leokwe Main Camp, we met in the early evening in the lapa next to the pool for a communal braai and an introductory talk by Prof. Tom Huffman.

Mapungubwe was the first town and the first indigenous state in southern Africa. The early state evolved through intense cultivation of the Limpopo floodplains and the surplus wealth generated through the Indian Ocean trade network. At its peak some 5 000 people lived in its capital and an equal number in the immediate neighbourhood. Archaeological surveys have recorded over 1 100 sites in this remarkable terrain, including agricultural villages, field camps, cattle posts and rainmaking hills.

Saturday 20 September

Our first day of exploration took us to Schroda for an introduction to the capital and initiation centre of the early Zhizo. On the way there, travelling along a 4x4 track, we came across two cattle posts, the first a 19th century European one and the second an older indigenous one at which there would have been a temporary home and grain bins to accommodate a few people and their animals. The rather dry area today would have been much wetter when the posts used to graze the cattle were in use. Their positions were indicated by quite obvious large bare patches among the winter grass despite the passing of many decades. Animals like to root around here because of the soft, dung-laden soil.

Schroda was in existence from AD 900 to 1000. It could have been the capital of the Zhizo, although this is not quite certain. The Zhizo became adept at trading ivory and gold with Indian Ocean traders from about 970, receiving glass beads in return. Elephant ivory was worked, as is evident from quantities of ivory flakes, off-cuts and half tusks found at Schroda. These people could originally have moved into the area for agricultural reasons or, more likely, the prospects of harvesting ivory. It is clear that the chief owned cattle and the rainfall would have been fairly good. However, Prof. Huffman commented that trading became a means to wealth for the Zhizo; for later inhabitants from 1200 to 1250 it became wealth itself.

Schroda is best known for some 200 clay figurines (deriving from about 800 pottery fragments) found in an excavation. They were placed on either side of a line of posts with little gaps between. On one side of the posts were found quite crudely made wild animals, while on the other side there were finely shaped figurines of domestic animals and people. Many researchers believe this to be the origin of the Domba, a premarital, nine to 12-month long initiation school for post-puberty boys and girls, including royals, from around 1150. The Domba later had reference to the Great Zimbabwe culture. Tom suggested that a couple of ritual, non-political specialists, possibly a task undertaken by the Leokwe, would run a school for the entire valley every few years. Here initiates would be reborn, becoming adults ready for marriage. Much of the Domba would have been about private matters and the didactic figurines would be used to demonstrate nature, the dangers of the bush, etc. All the figurines, which are stored at the National Cultural History Museum in Pretoria, were painted in black, red and white, while yellow was added later.

During the Domba smelting was carried out to explain birth. This was an elaborate lesson that took all day and is possibly the reason why a smelter was found just 50 m away from the place where the figurines were found. The Schroda smelter is the only furnace to be found in the Mapungubwe area, although cup smelters for copper, which was brought in from elsewhere, are found at various sites. The furnace may of course also have been used for smelting gold found in the Limpopo valley. In addition to the Schroda figurines, clay figurines representing female bodies with phallic heads instead of faces have been discovered in Mapungubwe. These are scattered throughout all southern African sites and time periods in Bantu-speaking patrilineal societies. Game boards with 32 pockets carved out on flat rock surfaces show that the game of marabaraba ('stealing cattle') was popular. The origin of this game is not known, but it could have come with the Indian Ocean trade.

The Zhizo became the Leokwe (AD 1000 to about 1150), whose culture was followed by Leopard's Kopje and then K2 (1030 to 1220). The Leokwe may not have had a capital in the sense of K2. On the way back to Leokwe camp we stopped at a rainmaking hill. This site at the top of a hill featured water hollows, cupules, pottery, a Leokwe midden and a Khami-like ruin dating to about 1450. Nearby stands a baobab, which had ritual significance.

Millet and sorghum in grinding hollows (Photo: Reinoud Boers)

Near Leokwe Camp, we looked at a Leokwe site found by Tom when

SANParks was about to start building the camp. A cattle kraal situated right next to a cliff indicates that the people here did not build according to the central cattle kraal principle as was done initially at K2. The kraal here could have been an overflow kraal for K2, which lies 2 km distant. The site revealed many burial sites, grain pits for long-term storage inside the cattle kraal (for protection by the ancestors), grain bins and small homestead kraals. Tom excavated the main kraal as well as a large midden nearby, which brought to light between 500 and 700 shell beads, but only two glass trade beads. If the role of these people was to look after some of K2's cattle, they were not receiving much for it. But they did make ivory goods, as indicated by a portion of an ivory tusk found underneath a grain bin. The site also revealed a copper crucible and a mould for producing garden-roller beads.

Report by Reinoud Boers

Sunday 21 September

The programme on the second day of our trip included visits to agricultural sites on Den Staat, a Leokwe hill rainmaking site at Little Muck and a rock shelter ritual site. Prof. Huffman reminded us that Mapungubwe was the first society that was structured by class distinction and sacred leadership in southern Africa, and that the driving force for this change was the intensive agriculture of the Limpopo floodplains and the surplus wealth deriving from the Indian Ocean trade network.

The Shashe-Limpopo area is dominated by Karoo sandstones interrupted by mafic intrusions. One of these intrusions underlies a large vlei next to the confluence of the two rivers. The Kolope River starts at Alldays and enters this vlei at the upper end. Backwater flooding of the Limpopo when the much larger Shashe comes down in flood, combined with the Kolope River delta, creates a rich agricultural area. As the water receded sorghum would have been planted in the floodplain and millet in the more sandy soil adjoining the area.

Leokwe Hill has various rainmaking sites on it. Before the 'sacred leadership' society came into being, the chief would instruct the rainmaker to begin his work. Most of the time the rainmaker would work at the back of his home in a 'rain kraal'. Here he would look at the state of the 'muti' in the rain pots and make any additions/changes considered necessary (e.g. might add a special fern). Cattle dung would then be brought from the kraal and the rainmaker would sprinkle 'muti' onto the fire, creating black smoke to 'call the clouds'. Only in times of a serious drought lasting three to five years would a rainmaker climb a special hill to 'pull the rain down'. Here the rainmaker had to perform all actions, so a temporary grain bin on a rock and a temporary kraal for the animal (e.g. black goat) to be slaughtered were built. At the end of his activities the rainmaker would burn the grain bin and the chief would command everyone to go through cleansing rituals. Someone would always be blamed for causing the drought, and this person would have to burn his own grain bin and build a new one on top of the remains. Excavations in Transitional-K2 period homesteads have uncovered several of these double grain bins. The rituals associated with the Leokwe hill continued until early 1200. From about 1250 it was the king or chief who did the rainmaking ritual as part of his 'sacred leadership'.

The rock shelter we visited is situated near Leokwe Hill and it seems apparent that puberty rituals for boys may have taken place here. Simon Hall's excavation of this rock shelter revealed a changing use: 1) at the lowest level there is evidence of hunter-gatherers only; 2) above this is evidence of a hunter-gatherer base camp and interaction with early Bantu-speaking peoples; 3) then comes intense hunter-gatherer and farmer interaction with Zhizo/Leokwe people living at Leokwe Hill; 4) at the next level the hunter-gatherers are no longer evident but there is ritual use by Leopard's Kopje Iron Age farmers. The rock art in the shelter is connected to the hunter-gatherers through ochre nodules in strata 2) and 3). In front of this rock shelter are numerous cupules, elongated grinding hollows and 14 pecked marabaraba boards, some of which are bigger than usual while others are long and curved, resembling the backs of crocodiles. These are probably linked to the farmers (stratum 4). Marabaraba is a game played exclusively by men and every young man was expected to be able to play the game by the time they were men and could take their place in court proceedings. The puberty ritual for boys usually took place when the chief's son was old enough for the ritual. The boys would be away for three to four months, staying in a lodge of some kind and learning various lessons, including what society expected of them as well-behaved men. At the end of the period the lodge and everything associated with their childhood would be burnt.

Report by Anne Raeburn

Rock shelter at Little Muck with a long history of occupation (photo: Reinoud Boers)

Monday 22 September

In the reassuring company of two armed rangers, we spent the day in the Venetia-Limpopo Nature Reserve, which adjoins the southern border of the Mapungubwe National Park. The reserve, 32 000 ha in extent, is owned by De Beers, which operates the Venetia mine, South Africa's largest diamond mine, in the eastern section. From several of the six archaeological sites we visited, we could see dust blowing off the mine's huge dumps in the far distance.

The first site, approached by a stone-lined pathway up the slope of Faure Hill, was a Khami-type settlement dating to about the mid-1500s and inhabited by Kalanga people. In the hierarchy of sites developed by Tom Huffman, it is a level-three site, which means that it was the residence of a regional chief. Because of his status as a religious leader, he lived in seclusion on the hilltop, while his 300 or so followers had their homesteads and agricultural lands on the flats below. The most conspicuous feature of the site is a low stone wall with, at one point, the courses laid in a chevron pattern. This apparently denoted a certain kind of snake and was significant in girls' initiation rituals. The site is also marked by the presence of vitrified cattle dung. Vitrification took place when cattle enclosures were burnt as part of the rituals of cleansing needed when cattle kept in them died of disease. A dozen or so similar level-three sites have been located in the Venetia and Mapungubwe reserves. Level-four settlements, which were three or four times bigger, would have been occupied by senior chiefs. The nearest of these is located 60 km to the southeast at Machemma on the Sand River, which (when it has water in it) flows northwards through the Soutpansberg and north-east towards Musina.

Getting to the second site involved a walk up a steep, stony path to the saddle of the Edmondsberg overlooking the dry course of the Kolope river in the middle distance. Here we saw the remains, consisting of burnt and hardened daga, of the foundations of what would have been 50 or 60 grain bins. Beyond the fact that these foundations would have consisted of a thick layer of daga laid on wooden poles, archaeologists have little idea of what the granaries would have looked like. The bins were apparently burnt for ritual reasons in times of serious drought, then

new ones were built on the same spot. Evidence from this and other sites in the region indicates that these burnings coincided with occurrences of the El Niño phenomenon, which is associated with the occurrence of droughts in southern Africa in modern times. The number of bins at this site suggests that it was once the location of a large homestead, probably belonging to a local headman. A radiocarbon determination obtained from a sample from one of the associated middens dates the site to about 1035, which puts it at the end of the Zhizo period. A by-product of the burning of the bins is that the burning and subsequent cooling fixed the magnetic signature of the daga in alignment with the earth's lines of magnetic force as they were at the time. Since the positions of the earth's magnetic poles shift over time, the daga's magnetic signature can be used to measure the magnetic declination that has occurred since the daga was burnt.

A few hundred metres beyond the saddle lay the third site we visited. This was a shallow overhang in a line of kranses overlooking the steep northern slope of the hill. On the back wall were several dozen painted figures, mostly very faded. The exception was a panel of four fat-tailed sheep apparently being herded by a human figure wearing a back apron, all beautifully done in red. (A photograph of this panel appears in Edward and Cathelijne Eastwood's book, *Capturing the Spoor: An exploration of Southern African rock art*, Cape Town: David Philip, 2006: 182. See also the discussion on p. 181.)

The fourth site was situated at the foot of the southern slope of the hill. Here we saw more vitrified dung together with pottery belonging to the Icon tradition. This is thought to have been made by the earliest Sotho-Tswana people who, archaeologists tell us, migrated from East Africa into southern Africa after about 1250. Numbers of similar sites have been found at other points at the foot of the hill, which is now thought to lie on what was once the boundary between the area occupied by Sotho-Tswana people to the south and Khami people to the north. The Khami state, which had its capital near modern Bulawayo, expanded over much of what is now south-western Zimbabwe and neighbouring regions after the break-up of the Great Zimbabwe state in the mid-1400s. It used to be thought that the territory dominated by Khami extended as far south as the Soutpansberg but research by Tom Huffman and others suggests that the state's southern borders were more to the north.

Fat-tailed sheep rock art panel on Venetia (photo: Reinoud Boers)

Our fifth site lay near the bed of one of the streams, now dry for most of the year, which meander across the bush-covered plain westwards into the Kolope river. Its location suggests that the former inhabitants were cultivating gardens in lands along the banks of the stream. The TK2 site was marked by the remains of more grain bins, which are thought to belong to a 'transitional Mapungubwe' period, dating to about 1200–1250. The grain bins were somewhat different in structure from the bins whose remains we saw earlier in the day.

The final visit was to what is thought to have been a cattle post on the edge of another escarpment nearby. Remains of pottery from a number of different traditions and periods have been found at other similar sites along the escarpment. Missing from the samples recovered by archaeologists is Khami-type pottery, which is taken as further evidence for the existence of a boundary in this region between the Khami and Sotho-Tswana cultural areas. We finished the day with a heightened appreciation of the work done by archaeologists who have learnt to read the broad cultural history of this region from traces that the untrained eye simply does not see. And we finished also with a heightened respect for the men and women who, 500 and 800 and 1 000 years ago, were able to squeeze out a living from farming in this harsh environment.

Report by John Wright with acknowledgement to Tom Huffman

Tuesday 23 September

Today we visited three capitals, K2, Mapungubwe and the site of the Kalanga/Birwa. In about AD 1000, Leopard Kopje people from the south moved into this basin and the Zhizo moved west to Botswana. The language spoken was a form of Shona, namely Kalanga. K2 was the Leopard Kopje capital and towards the beginning of the 13th century the population stood at about 1 500. The central cattle kraal pattern was adhered to. The chief lived on the western edge and his wives and families lived in separate houses. The main residential area belonged to the domain of the women and the cattle kraal was the domain of the men. The central kraal was initially important, but after 1100 the cattle were moved to kraals in outlying areas.

We did a lot of this at Venetia (photo: Piet Oosthuizen, De Beers)

Burial was important and people were buried in areas that were associated with their lives: wives behind their houses, children in front of houses and infants under the house. Men were buried in or near the kraal. When the cattle kraal was moved, a midden was situated there. The high midden contained alternate layers of ash and bone on top of two thick layers of dung, some of which has been vitrified. A separate mound of pottery sherds lies nearby. This society traded in ivory, copper, iron and glass beads, and K2 had an extensive network of trade connections. The wealth generated created inequalities and developed class structures, which resulted in changes in settlement patterns. Around 1220 people left K2 and settled at Mapungubwe Hill. Commoners lived at the base of the hill, where the commoners' court was established, the population being around 5 000. But the king and a few elite people moved to the top of Mapungubwe. This hill had previously been a rainmaking hill and by moving there the king acquired the powers characteristic of sacred leadership and became a rainmaker. There were four staircases up the hill, the principal one being where the present-day staircase is (the western ascent).

The first palace was built to the north-west of the hill near a rainmaking place. In about 1250 AD the palace was moved to the middle of the hill. A small house, the remnants of which are still evident, was built at the earlier site for a traditional doctor or diviner. There was a 'front' office for the king's chief messenger and homes for the royal entourage and musicians in front of the palace. Most of the kings wives lived in a separate area in the north-west. The sister of the king was responsible for looking after the fertility of the women. A cemetery was located between the

women's area and the palace. Excavation unearthed 23 graves. Three of the skeletons were found in a sitting position and it is in these graves that Mapungubwe's famous gold artefacts, including the golden rhino (of which there may have been three), were found. The burial area may have been surrounded by a fence to resemble a kraal; holes have been found for the placement of the uprights.

In the early 1300s there was a seven-year drought. The king as rainmaker had his power questioned, which resulted in a succession dispute. This led to the settlement being abandoned. The Mapungubwe inhabitants people migrated to the north-west and the south.

During this day we also visited a third capital, namely the site of the 19th century Kalanga/ Birwa, which we reached on a very nice walk, and visited the lovely lookout area where the Shashe River enters into the Limpopo. Some enjoyed sunset at the skywalk next to the Limpopo. The birdlife above and the animal life below the quite extensive walkway was fascinating.

Report by Keith MacMullen

Tom Huffman on one of the many occasions he gathered us around him to pass on information (photo: Reinoud Boers)

Visit to the Palaeoscience Centre, Evolutionary Studies Institute, University of the Witwatersrand (11 October 2014)

With Professor Bruce Rubidge, Director of the ESI

In the James Kitching room, Prof. Bruce Rubidge outlined for us how the room had been named for a fossil collector who, after World War II, had been particularly active in collecting fossils for the university in the Karoo and at Makapansgat. He went on to explain how, in 2013, the Institute for Human Evolution and the Bernard Price Institute at Wits were combined to create what is now the Evolutionary Studies Institute (ESI) for the palaeontological sciences.

He then showed us the fossil laboratory where fossils are extracted from their rock matrices. It is slow, painstaking work; often it can take up to a year to complete a vertebra. There is a staff of 46 in this laboratory. The training of a proficient technician can take up to ten years and there is a move afoot to create a formal training course leading to accreditation.

The fossil casting room was next. This is where casts are made of fossils, both for sale and for teaching purposes. The next room was for the study of palynology. This process involves a procedure in which rocks are dissolved to extract pollens. These are kept in an organic concentrate in small phials and are used to identify plants and trees. Studies of pollens show a correlation of rock layers round the world. We looked briefly at the plant herbarium, which is the biggest in the world. Then we came to the Karoo storage and work area. Here specimens of dinosaurs, mammals and reptiles are housed in display cabinets. The process of collection, identification and marking is an ongoing process and needs a very practiced eye. We saw an amazing nest of fragile dinosaur eggs, which had been found at Golden Gate by James Kitchener about 30 years ago.

The Phillip Tobias room is a very elegant and spacious room with beautiful wooden display cabinets housing a fascinating collection of primate and hominid fossils. The Taung skull and the recently found *Sediba* fossils are there. It is the biggest collection of fossils and hominids in the world, comprising both casts and originals. The collection previously housed at Wits Medical School also has a place here. The last room took us soaring into the new technological age. A micro-focus CT scanner linked to computers upstairs scans fossils and prints out the results on a 3D printer. The use of tomography, a method of radiography displaying details in a selected plane within the body, allows one to see a complete skeleton in a block of rock with astonishing clarity.

We were privileged to see this state-of-the-art, world-class institute, which is not readily accessible to the public, and to be guided by the enthusiastic and dedicated director himself.

Report by Gerry Gallow

Some of the archaeological sites of Olifantspoort (17 November 2014)

Led by Graham Reeks, archaeologist and Trans-Vaal Branch committee member

After a week of unpredictable and inclement weather, Sunday 17 November dawned bright and clear with blue skies and a gentle breeze. After driving west along the Magaliesberg, about 35 enthusiasts plodded up a steep and stony hill and came upon this archaeological wonderland – the home of the Kwena people of the Tswana group who inhabited the area from about 1400 to 1820. The surrounding hills and ridges show many more villages with smaller populations. Archaeologist Revel Mason has referred to it as the 'Olifantspoort megasite cluster'.

The Olifantspoort hill site has fascinated archaeologists and amateurs alike. Revel Mason used both aerial mapping and pedestrian surveys to survey the area in the early 1970s and chose some Middle Age and Later Iron Age sites for extensive excavation. He paid particular attention to the stone walling, which is of exceptional quality and height, and also unearthed the first Boekenhout 'sliding door', an example of which we were able to see and observe how it worked. Many artifacts, both ceramic and metal, as well as five skeletons were found here. Graham Reeks told us the skeletons had been a problem as the law requires the police to be informed and the descendants of the original inhabitants to be consulted. As the Kwena who had lived here were believed to have moved to Botswana, it seemed easier to leave the graves in peace.

The walling in this large settlement consists of dolerite rocks that often seem to be rhomboid in shape. The quality of the construction is amazing and careful building has enabled the walling to retain its shape over many centuries. At the top of the hill the walling is higher and even better built, which has led to the belief that this was the area of the chief. In the 'commoner' area we see

lobed outer walling containing single family units – a townhouse complex in today's world. Revel Mason, when he had cleared the site, was able to excavate 85 hut floors. He divided these into hut types, namely a single-cell round-walled hut with a door, a double-celled hut with an internal sliding door, and a triple-celled unit he called the 'summer house' unit, the local men's club, with a raised platform for the drinking pots!

The 600 m x 400 m site contained about 125 huts built into the perimeter bays surrounding the central cattle kraal. An interesting feature of the kraal is two parallel walls which connect the central kraal to the outer grazing areas. The artifacts uncovered included grindstones, potsherds, ostrich eggshell beads, bones, copper beads, stone and iron tools as well as a softer type of iron ore (specularite, ochreous hematite,'sibilo'), which was mined from ancient mines, perhaps at Boons. Revel's excavations of 15 middens confirmed the social structure of the chief and his relations living high up the hill. Here were found the remains of bovid bones, whereas in the proletarian areas lower down the hill there were mostly sheep and goat bones. The bones of wild game were also found in the middens, as well as evidence of sorghum and millet cultivation. Robbie Steel, an archaeologist who worked with Mason in the 1970s, found rock engravings that included images of hut settlement plans, goats and Tswana-type shields.

Graham led us to areas that many of us had not seen before slightly away from the main village area and on the opposite side of the large cattle kraal. The placement of foundation stones was interesting and suggested doorways and other features. Nature continues its restless encroachment on these ancient sites but among the tangle of trees and bushes there are tempting outcrops of rocks and stones that beckon for investigation. Plodding down the stony hillside I'm sure many people were pondering about this bygone settlement of orderly, socially structured people, their amazing skills and their survival in the hostile hills. A truly wonderful, energetic and thought-provoking day. **Report by Gerry Gallow, with acknowledgement to Graham Reeks**

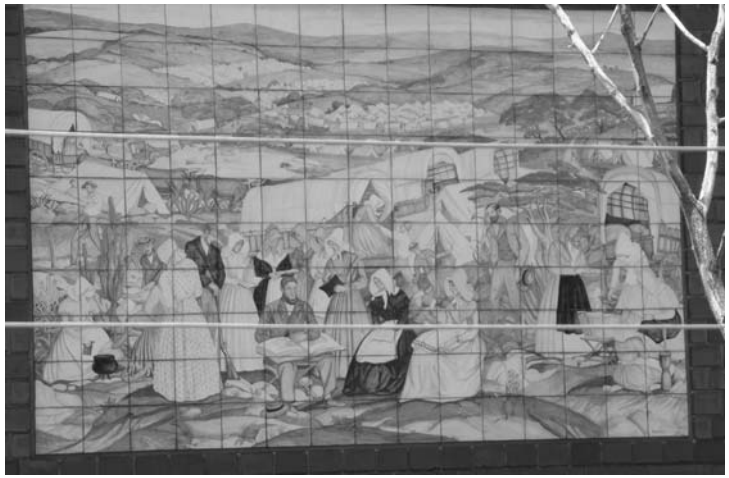
Sunlawns at Olifantsfontein (15 February 2015)

With Alex Duffy, Professor in Art History at the University of Pretoria until his retirement

Our tour began outside the now defunct post office in Irene. This beautiful old building is built in red brick with arch-topped windows. It has on the side a most colourful example of the tile panels of the Globe Pottery Company. Such tile or ceramic panels adorn many buildings in South Africa, e.g. at St John's College and the Durban City Hall. The panels depict events in history. As some government buildings are decommissioned, these irreplaceable pieces of our art history are considered 'colonial' and valueless, and are destroyed or abandoned.

Prof. Duffy gave us a most interesting outline of the history of various potteries during the period from the end of the 19th to the mid-20th century. Thomas Major Cullinan was a builder, born in 1862. In 1892, when he needed bricks for his construction work, he bought a clay pit in Benoni and founded the Rand Brick and Tile Company. It earned a reputation for producing the best bricks in the Transvaal. After the Anglo-Boer War he formed a consortium to look for diamond fields as well as for lime for the building industry. He bought three farms, one of which was Sunlawns in Olifantsfontein. This became the centre of the pottery industry.

Cullinan discovered good lime fields in Olifantsfontein and established the Transvaal Pottery Company nearby. He imported experienced craftsmen from England and the Ceramic Studio was born. It functioned under that name from 1925 to 1942 and then as the Linnware Studio until 1962. English Creamware was created but could not compete with the imported product from England. The mugs made by these potteries initially carried a Star of David underneath. The belief was that rich people, who were presumed to be Jewish, would buy them, but then the company discovered that poorer people, seeing this symbol, would not buy them, so they marked the mugs with a mealie cob instead! A group of orphans was used do tracings. Sherds and samples of these pieces of pottery are found on archaeological digs from time to time.



Tile panel on the Irene post office wall depicting a scene from the Great Trek

(photo: Barry Jacoby)

We then moved on to Sunlawns. Here stands the home that Roland Vivian Cullinan and his wife Marjorie built on the northern side of the farm, on the sunny slope. The architect was Vivian Sidney Rees-Poole (1883–1965). The house is now owned by Pamela Cullinan, who was our hostess. It was built as a 'grand house' in the Cape Dutch style, with bricks made at Olifantsfontein. On the gables are sculptured plaques of the ship *Dromedaris* made by Mary Stainbank; similar plaques are also to be found at Addington Hospital in Durban.

Inside the house, many ceramic pieces are on view. The house is a living monument to the days of local pottery manufacture, with beautiful tiles for the light switches and fanlights, around the basins and toilets, and on the walls. In the kitchen two 'tile' poems are worked into the tiled walls.

The grounds are extensive. The British garden designer, Gertrude Jekyll (1843–1932), had a strong influence on the layout. The walls, arches and terraces house many ceramic pieces. Large green-glazed pots, garden lights and a sundial were placed sensitively in the garden, and the lily pond is decorated with a fountain sculpture designed by Mary Stainbank and made by the Ceramic Studio. Roland Cullinan imported blue gums from Australia to provide wood for the kilns and he also planted pin oaks in 1930. There is a small thatched cottage on the south side which was used by Thomas Cullinan as a weekend retreat, but he continued to live in Parktown.

While our tour was concerned with the more artistic kinds of pottery, various kinds of ceramic piping were made for commercial use. These were eventually replaced by piping made from plastic and metal, as a result of which the ceramics industry of Olifantsfontein came to an end. Prof. Duffy is busy writing a book on the tiles of Sunlawns. **Report by Gerry Gallow**

The Trans-Vaal Branch website is found at www.archaeology.org.za