

ARTEFACTS

Reports covering the period February to June 2012

EVENING LECTURES

The silver mining industry of the Greater Pretoria Region

(2 February 2012)

Graham Reeks, MA in archaeology (UNISA) and vice-chairman of the Trans-Vaal Branch

The silver mining story begins around 1885 when prospectors roamed the countryside seeking precious mineral deposits, gold in particular, and virtually ends in 1999 with the closure of the Argent mine. By dint of intensive and extensive research over three years, Graham Reeks managed to uncover a fascinating collection of letters, maps and photographs, all of which give an insight to an industry about which little is known.

The first discoveries of silver were made in 1884/5 just outside Pretoria by Harry Struben and Alois Nellmapius. Each deposit was rich in base metals and contained silver. Needless to say, the deposits quickly came under the control of the Randlords, with one company, H Eckstein & Co. (later Rand Mines), gaining dominance in the 1890s. The industry would have three significant periods of activity, driven mainly by international silver and base metals prices. A total of 93 t of silver and many thousands of tons of associated lead, copper and zinc were produced. Once the use of silver for currency declined in the 1880s, its price fluctuated wildly. The USA's Sherman Act of 1890 gave support to the silver price, but was short-lived as the next government repealed the act in 1893, resulting in a severe recession.

Twenty-five silver mines were established in an area stretching in an arc from modern-day Krugersdorp via Pretoria to Delmas, described at the time as the 'Pretoria Silver Belt'. Graham concentrated on the seven main producers in his lecture.

Albert silver mine 1885-1892. This was the first mine, initiated by speculator and prospector Alois Nellmapius who formed a company with wealthy shareholders such as Isaac Lewis, Sammy Marks, Lewis Ford, Carl Jeppe and TW Beckett. Ore was shipped to Europe initially, but concentrating equipment was installed later with mixed results. High capital needs led to financial difficulties and in 1893 the mine closed after a possible scam involving the production of a false

silver bar to attract investors. The mine produced 2,28 t of silver.

Willows silver mine 1885-1893. This mine was started in 1885 by Struben, who discovered a good copper deposit when installing a waterwheel on his farm. The company formed to mine it was later controlled by the ubiquitous H Eckstein & Co. By 1890 its ore was being smelted locally. Correspondence shows that there was much controversy and intrigue between directors and the mine manager. The company was liquidated in 1894. Nothing remains of the mine as it disappeared under the Silverton suburb, Nellmapius. The mine produced 19 t of silver and 500 t of copper, making it the largest producer of silver in the 1890s.

Edendale lead mines 1890-1941. Consisting of two mines to the north of Mamelodi, Edendale started up in 1890 predominantly as a lead and zinc producer. Underground water resulted in high pumping costs, which deterred Eckstein from investing, but supply of water to the nearby Premier Diamond Mine provided a useful additional source of revenue for the mine. Over its life, the mine produced 5 000 t of lead, 100 t of zinc and 1,2 t of silver.

Argent mines 1988-1999. The four mines in this group, namely Transvaal Silver Mine (TSM), Boschpoort, Pretoria and Brakfontein silver mines, were located to the north of Delmas. Here too the Randlords, beginning with Barney Barnato, were involved. Barnato soon sold out to H Eckstein & Co. The original attraction was rich lead veins. By 1893 the falling international silver price, falling grades and deteriorating political conditions in the Zuid-Afrikaansche Republiek (ZAR) led to the closure of TSM, which had produced 6 000 t of lead and 17 t of silver. The surface buildings were all but destroyed during the Anglo-Boer War by British troops bivouacking there. A claim for damages amounting to £6 500 was rejected by the Military Administration in 1903. During a peak in the silver price in 1919 TSM was reopened by General Mining under the control of Sir George Albu, and was successful for seven years until the vein petered out. During this period 16 000 t of lead and 45 t of silver were produced. Brakfontein and Boschpoort fed their ore to the TSM plant. From 1949 until 1999 there was sporadic mining activity spurred by rising silver and lead prices. From 1950 to 1989, Goldfields owned Argent and produced 2 400 t of lead, 3 000 t of zinc concentrates and 8 t of silver.

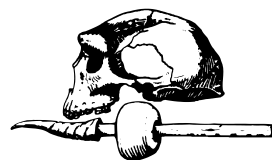
Graham's archaeological first focus was to locate the foundations of the mines using Google Earth. Field work was initially hampered by serious bush encroachment, a problem fortuitously cleared by a bush fire. Several buildings were identified and many interesting artefacts found, including glassware, pottery, nails and a 'poll-pick'.

Report by John McManus

Peleliu 1944: the archaeology of a South Pacific D-day (8 March 2012)

Neil Price, Professor of Archaeology, University of Aberdeen, Scotland

Peleliu is one of the islands forming the island nation of Palau in the South Pacific. It is a coral island of some 13 km². A ridge runs the length of the island, which is covered by



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almost impenetrable jungle. Peleliu was conquered by the Japanese in 1941 and formed part of the Japanese front line known as the 'Zone of Absolute Defence'. The Americans decided to invade Peleliu with a view to capturing the airstrip as part an imminent attack on the Philippines. In September 1944, after three days of heavy bombardment from the sea and by air, 18 000 marines landed on the sandy beaches. It was thought that the operation would take three to four days, but in the end it took three months and resulted in some of the most vicious and costly fighting of the entire Pacific campaign. By the end of the first day the Americans had taken the airfield, but progress thereafter was painstakingly slow.

The Japanese were ensconced in 600 very well prepared natural and man-made caves on what later became known as 'Bloody Nose Ridge'. The caves had concealed sloping entrances to deflect the effect of bombs and hand grenades. Some caves were only half a metre high and many were inter-leading. Well-concealed pillboxes had also been erected. The marines were supported by tanks, artillery, mortars and a large offshore flotilla of warships. Flame throwers, napalm and hand grenades were used to root out the enemy. Eventually, armour-plated bulldozers were used to seal the caves, or demolish them from above.

The Japanese army comprised 11 000 Japanese (of which 19 survived) and 3 000 slave labourers from Korea and Okinawa. At the end, many committed suicide. American casualties amounted to 70 per cent of its forces, the highest loss suffered by any American force. In 1947, another 35 survivors were found who had no idea that the war was over and even seven years later Korean slaves were found hiding in the jungle. The battle of Peleliu was in fact unnecessary as the Americans could have by-passed it on their way to Japan.

Currently some 700 Palauans live in Peleliu and the battle fields have been completely reclaimed by the jungle. The Palauans feel that there are many alien spirits on the island and are therefore not entirely comfortable living there. Tourists, in particular American and Japanese survivors from the battle or their offspring have recently begun visiting the island. Although this is bringing in much needed income to island, the provenance of the battle fields is reducing with visitors taking trophies. In addition, there remains an inordinate amount of unexploded ammunition, in particular landmines and hand grenades on the island. Tourists have been known to take live ammunition as souvenirs. The Japanese take home dust from the caves to put into their family graves.

In 2010 Prof. Neil Price and his team were called in to survey the battle remains and to suggest how they should be preserved. They worked in areas owned by the local chiefs and therefore cognisance had to be taken of local culture, rituals and beliefs. The work had to be undertaken in temperatures in excess of 40 °C and 95 per cent humidity. The team consisted of a bomb disposal unit, archaeologists and historians. The first job of the bomb disposal people was to clear a path, demarcated by poles, of landmines. In the caves, gas masks had to be worn for many bodies found there are still in the process of decomposing and there was the added danger of inhaling poisonous bat guano fumes. Conditions were further compounded by spider bites and infection. The appalling sights the team encountered, together with the extremely difficult working conditions in sometimes extremely small caves, took its toll on the team, which was carefully monitored for stress levels.

The contents of the caves were documented and photographed, and GPS coordinates were taken. Nothing was removed or disturbed. The use of iPads proved very successful in the high humidity. Flame throwers, which had penetrated 3 m into caves, had been used to force out the Japanese, or 50-gallon drums of napalm were rolled into the caves and ignited with hand grenades. Water bottles had exploded in the intense heat and many bodies and equipment were

burned beyond recognition. Huge numbers of empty sake bottles were found as Japanese soldiers were partly paid in sake. Also found were large numbers of respirators; both sides had to use gas masks to breathe as the smell of cordite, excrement and decomposing bodies had been appalling. The Japanese had used grenades made of glass containing poisonous gas activated with hydro-cyanic acid.

Little is known of the Peleliu battle in the USA, despite the horrific casualties, as no reporters accompanied the invasion since it was to be just a short action. Perhaps the one bright light is that Japanese school children make garlands of 1 000 origami cranes, cranes being the symbol of peace, to remember the battle. Prof. Price's lecture was fascinating but left one with an overwhelming feeling of pointless loss of life and the uselessness of war. **Report by Noni Vardy**

Standing at a chasm, or at the crossroads? Whither Zimbabwean archaeology in the 21st century? (17 May 2012)

Paul Hubbard, archaeologist and doctoral student at UNISA with focus on the archaeology of the Matabele State, is an associate researcher at the Natural History Museum in Bulawayo, works with the Mother Africa Trust and is a professional guide on Zimbabwe culture and history

Paul Hubbard, who qualified at the University of Zimbabwe and University College, London, gave a very personal lecture on Zimbabwean archaeology in its current socio-political milieu and the future of the discipline. To many, Zimbabwe is plagued by hyperinflation, political instability, hunger, suffering and death, corruption and land-grabbing. Hubbard, a born Zimbabwean, argues that these perceptions are inaccurate. His Zimbabwe is improving and is taking great strides towards transformation. The future of Zimbabwean archaeology and cultural heritage is optimistic.

A few years ago, Hubbard began the Zimbabwean bibliographic database. He managed to collect an astounding 4 762 entries. With this database, Hubbard could reflect on archaeological scholarship in Rhodesia and Zimbabwe from the mid-19th century to 2005. Based on this analysis, Hubbard argues that archaeological work in the country can be divided into a number of phases. The longest period was that of antiquarianism, stretching from the 1800s to the 1920s. This period saw collectors of curiosity pillaging the country's archaeological treasures for commercial and social gain. In this period little rigorous study was conducted. From 1921 to 1950, amateur archaeologists began studying the archaeology. This period saw Neville Jones, the father of archaeology in that country, come to prominence with *The Stone Age in Rhodesia* (1926).

From the 1950s to 1965, a professional phase in archaeology occurred in a time of socio-cultural unrest. Roger Summers was appointed director of the National Museum in 1947 and under his tutelage a generation of archaeologists were trained. The second professional phase from 1965 to 1980 saw expatriate researchers doing primary research on a large-scale, especially in terms of theory and practice. The archaeology at this time, when the Rhodesian civil war and the fight for independence was well underway, remained close to mainstream Processualism (New Archaeology) and science. The last phase of professional archaeologists from 1980 to 1985 saw a major transformation in the country with foreign funding pouring in, which made feasible new areas of research, new topics and strong teaching programmes. This was the golden era of indigenous Zimbabwean archaeology. Interestingly, throughout this time and even thereafter, the

number of fringe archaeological publications still advocating the racist ideas of the early 20th century about archaeological origins did not cease.

From 1980 to 1990 many trained archaeologists either left Zimbabwe or lost their skills. Hubbard recounts how he met one of his graduate students working in a restaurant as a waiter, years after finishing his degree. Hubbard's plea to graduated archaeologists is: 'Come home, we need you!'

For most Zimbabweans, archaeology is on the fringe of their daily lives; they are detached from it. Through the Mother Africa Trust, for which Hubbard manages environmental research and community projects, he is trying to make archaeology more relevant in their daily lives. He maintains that archaeology is socially constructed. 'What I feel is needed is not transformation in archaeology, but a revolution in the way we do business'. A vital question is, 'How do we make archaeology feed the people?' For the trust he has implemented an integrated approach to conducting community involvement with a network of schools in rural areas in the Matobos. By the end of the year the trust will reach over 1 000 children from 30 schools. According to Hubbard, archaeology is not detached from the communities in the Matobos, rather it is a living landscape with smaller ruins, rock art and rituals, which surround people all the time.

Report by Law Pinto

ANNUAL SCHOOL

Archaeology and History of the Landscape: The interaction of South Africa's people in the last 500 years

**For other Annual School 2011 reports see *Artefacts* 38(2),
December 2011**

Aspects of the Late Iron Age in KwaZulu-Natal

Gavin Whitelaw, archaeologist, KwaZulu-Natal Museum, Pietermaritzburg

Gavin Whitelaw's talk covered interactions between people in KwaZulu-Natal over the last 500 years. He explained how alternative sources often have to be used to gain information about this period because of a lack of written history. Archaeological evidence suggests that small groups of hunters and gatherers populated the KwaZulu-Natal area prior to 1300, but after this time there is evidence of agriculture and farming, and it is assumed that some climatic event was responsible for this change. Evidence of interactions after 1300 can be found by examining how technology and skills changed. One example is changes in patterns used on pottery, which suggests cultural exchanges. Another example is the spread of iron tools into grassland regions that do not have the resources to support iron processing. Support for the theory that climatic changes may have been responsible for these interactions has been obtained from dendrochronology. Analysis of a 600-year-old yellowwood tree shows that the 1300s were a

period of limited rainfall resulting from a widespread mini ice age.

Migration and interaction are often synonymous with conflict and evidence of this is found in the number of hilltop settlements, which are easier to defend, that date from this time. Indications of positive interactions can also be found: some Nguni sites show evidence of Khoisan rain-making rites and some Khoisan settlements show signs of Nguni divinations.

Historical documents from shipwreck survivors have also been used to provide information on the lifestyles and interactions of the indigenous peoples of KwaZulu-Natal. There are four documented accounts by survivors of Portuguese shipwrecks along the KwaZulu-Natal and Transkei coasts in the 1500s. The earliest accounts are of the *São João*, wrecked near Port Edward in 1552, and the *São Bento*, wrecked south of Port Edward in 1554. Although large numbers survived both shipwrecks, only a handful survived the arduous journey along the coast to Delagoa Bay, which was established by the Portuguese in 1542 as a hub for ivory trade. Although survivors' accounts mostly focus on their travails, they do include some information about the coastal people. Survivors of the *São Thomé*, wrecked near Richard's Bay in 1589, provided some detailed information about the coastal people as they walked along the coast to Delagoa Bay. A notable story from one shipwreck is that the indigenous people stripped the clothes off all the survivors. To maintain her modesty, the wife of a nobleman buried herself in the sand and is reputed to have died at that spot.

Survivors of the *Santo Alberto*, which ran aground near Mazzepa Bay in 1594, chose to walk inland to Delagoa Bay because one passenger, Nuno Velho Pereira, had knowledge of the travails of the three previous survivor groups. Pereira and his party of over 200 people took copper, beads, nails and chains, and calico from the wreck to trade with the local people for food and guides. Their records point out many landmarks: the sourveld grasslands, the Drakensberg and a 'small dessert' thought to be the Melmouth plateau. As they ventured further north their records indicate signs of social stress. They also detail the goods that were most highly valued. West of the Tugela River it was metal and to the east it was calico. This suggests that metal processing and a trade in metals were already well established. After 90 days, 182 survivors reached Delagoa Bay.

Artefacts from the various wrecks, particularly Indian red beads, are now being used to track interactions between people in KwaZulu-Natal. It is assumed that the beads were collected at wreck sites. The introduction of maize to Africa by the Portuguese in the 1600s brought about many changes as this crop had a high yield and allowed higher population densities. The ivory trade at Delagoa Bay also resulted in shift in wealth and power among indigenous peoples, and may have in some way been responsible for the rise in 1810 of the tribe from which Shaka emerged as king. Mr Whitelaw recommended the following authors on shipwreck survivors: GM Theal – various books, including *Records of South-eastern Africa* (10 volumes); CR Boxer – *The tragic history of the sea: 1589 to 1622*; and H Crampton – *The Sunburnt Queen*. His article in *Natalia* 27, 30-41 is also of interest.

Report by Louise Mackechnie

[Correction: The Annual School report on Professor Fred Morton's lecture, 'The nature of Tswana entities before and after the upheavals of the early 19th century' in *Artefacts* 38(2), December 2011, was written by **Law Pinto**]

Remember: www.archaeology.org.za for branch activity information and books for sale

The archaeology of Venda origins

Tom Huffman, Emeritus Professor, School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand

The Venda occupy an area in the north of South Africa, from the Soutpansberg to the Limpopo. Their lands are bracketed to the north by the Shona in Zimbabwe and to the south by the Sotho. Venda origins are evident in customs from social hierarchies preserved in their villages, where the royals lived in social isolation. Monoliths at the entrances of large settlements marked the way to the chief, and villages have Zimbabwe-style stone walls. Venda oral traditions use status names that are found in the languages of the Singo, Twamanba, Kwevko, Mbedzi, Lembethu and Ngona. The Singo came from Zimbabwe. The Dlodlo and Rozwi kings appear in Portuguese records in 1690, which note that Changamire Dombolakonachingwango conquered the country and Monomotopo before he died in 1696. It then took a year to choose a king, who had to be the son of a king and his mother a royal wife. Those sons who were not chosen left the kingdom. One of Changamire Dombo's sons went to Whangi Motupo and another went south to Toyando ('the trunk of the elephant'). The Singo are true Venda, according to John Blacking, as older traits are evident in their culture, but many others disagree with that interpretation. According to Huffman, the Venda culture was well established before the arrival of the Singo.

Archaeologists researching Venda sites have found that they differ in size. At the smallest sites (Level 1 and 2 villages) there was a homestead, the standard central cattle pattern and a small population of as few as 200 people headed by a family head or a ward headman. If the headman was a royal his village had prestige walling and a men's court on a rocky platform. The huts of the wives were situated behind that and the middens behind those. A Level 3 village with 250 people was ruled by a petty chief and had stone walling. If he was a sacred chief, the wall represented sacred seclusion. At Machedema, which is a Level 4 palace of a senior chief, there is a monolith and more than one audience chamber, messenger's huts and it had a traditional doctor. Two or three building phases indicate a dynasty, as rulers never occupied a previously occupied site for fear of pollution. Pottery found at the site dated from 1400 to 1600 is initially of Shona design, then Shona/Sotho design and then has Venda patterns. At Makahane in the Kruger National Park there is a site the same size as Machedema and its chief would have had the same political authority. They would have been equal and independent.

At Dzata there is a Level 5 palace. At three times the size of Machedema, it is the largest in Venda. It has a speakers' platform or court. Ritual behaviour is indicated by the fact that the chief was screened by a veil and that people never spoke to him directly. The messenger would repeat a supplicant's words to the chief and supplicants would clap their hands and call him ritual names, such as 'Great Elephant' or 'Great Eater of White Men'. The walls at Dzata are constructed of purple and blue stone obtained from a local quarry, not from Zimbabwe. Blue stone is a symbol of power and indicates that the Singo had conquered the country. Dutch documents of 1730 mention Dutch travellers trying to find this place near Phalaborwa.

The world view of the Venda is evident in the practice of sacred leadership and social class distinction in the Venda *muzindo*. The Venda language, derived from Shona and Sotho/Tswana, is a difficult language, its structure intended to make speakers exclusive. Venda oral histories indicate that many groups of people came from Zimbabwe. Jannie Loubser has established a cultural-historical sequence by excavating 20 sites ranging from the 14th to the 19th centuries. By means of detailed ceramic analyses, he found that Shona and Sotho/Tswana speakers merged

during the 15th century and formed the Venda language.

In 2011, 60 new sites were discovered at the edge of a wetland with cultivation away from the Limpopo. Huffman said that this raises the question about whether the Soutpansberg is the major or cultural boundary, and whether the sites are contemporary with Venda sites at 1400.

Report by Hilary Geber

The British in the Cape and Port Natal

Professor John Lambert, Emeritus Professor and Research Fellow, Department of History, University of South Africa

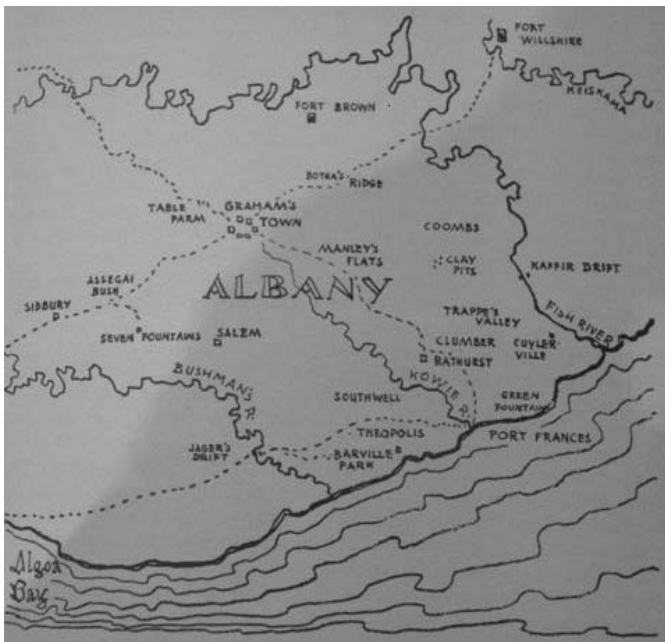
Professor John Lambert gave a well-informed lecture drawing on the research he is undertaking for a book on white English-speaking South Africans, their history and identity. He spoke about the relationship and interaction between the British and those groups with whom they came into contact from the establishment of British rule from 1795 and then from 1806 to the 1840s. These were the Dutch, Cape slaves, the Khoekhoen, the San and the Nguni. The lecture concentrated on the British settlers, examining them in three areas: **Cape Town** where they came into contact with an urbanised Dutch community and where attitudes to slaves and 'coloureds' tended to be based on humanitarian values; the **Eastern Cape frontier** where the settlers' attitudes to, and relationships with the Khoesan and Nguni were shaped by their labour, trade and security needs; and **Port Natal** where the British hunter-traders entered into a patron-client relationship with the Zulu king, Shaka kaSenzangakhona.

When the British arrived in southern Africa they met an unequal and racially divided colonial society. The slaves and Khoesan were beginning to resist the dominance of the whites and there was increasing conflict with black chiefdoms, particularly the Xhosa on the Cape frontier. Dutch society outside Cape Town was largely isolated from the outside world. The arrival of the British, particularly in 1806 after the short Batavian interval, radically changed this position, making the Cape more directly subject to metropolitan control and policies, and drawing the subcontinent into the Atlantic world and the changes taking place in it.

Cape society in 1795 consisted of 16 000 Dutch burghers, 18 000 slaves and about 17 000 Khoesan. By the terms of surrender of 1806, the British left most of the structures of government intact and the burghers were guaranteed their property and status, including slaves. They continued to monopolise government positions. However, the British government wished to bring about a political and legal transformation in the colony. In addition, they sought to introduce free market and wage-labour principles. In 1807 the slave trade was abolished and in the following years legislation was introduced aimed at improving the position of slaves. The burghers felt their position and identity threatened. Although no attempt was made before 1815 to introduce British settlers, there was a British presence made up of officials, soldiers and Royal Navy sailors. The officials and high-ranking army and naval officers had a major impact on Cape Town society; many were well-connected and they formed a social coterie around the governor, becoming in effect an elite that had little connection with the colony's inhabitants. They were joined by a handful of permanent British residents, mainly in Cape Town and its environs, who numbered 757 by 1820. These tended to be retired officials, merchants and retired soldiers or sailors, many of whom became small-scale craftsmen such as blacksmiths, cobblers and saddle-makers, and married burgher women. British, predominantly Scottish merchants, backed by metropolitan capital, posed a challenge to the burgher monopoly on internal trade and

retailing, and came to monopolise the colony's foreign trade. By the 1820s they were beginning to invest in land, especially in the Overberg. Some of the most prominent among them formed close links with their burgher counterparts, cementing the links through marriage, and becoming slave owners. By 1820, 13 per cent of British Capetonians were slave owners.

Few Britons settled on or near the Eastern Cape frontier, but in 1817 the Governor, Lord Charles Somerset, recommended introducing British settlers to this region. The administration had been faced with resistance and rebellion by both burghers and Khoekhoen, with a strong movement against free labour. Although the thrust of British policy was to stabilise the Eastern Cape through the reformation of labour relations, Somerset also wished to anglicise the 'degenerate' burghers. The final reason for his recommendation was unrest on the eastern frontier. Growing Xhosa pressure had led to the Xhosa wars of 1811 and 1819, resulting in the expulsion of the Xhosa from the Zuurveld and the lands west of the Keiskamma River. The threat of Xhosa retaliation convinced Somerset that the introduction of British settlers would provide a defensive cordon against the Xhosa, contain the Khoekhoen and establish a counterweight to the burghers. Domestic conditions in the UK fuelled concerns of domestic unrest and in July 1819 the British Government voted £50 000 for a settlement scheme, receiving 90 000 applications. About 4 500 men, women and children were selected. They ranged from 'illiterate labourers to sophisticated gentry', from men escaping poverty to gentlemen farmers leaving the depressed state of agriculture in Britain. The settlers were provided with 100 acre plots in the Zuurveld, which was renamed Albany. They were expected to establish an agricultural settlement in an area hitherto devoted to pastoral farming and remote from any large urban centre. Only half the settlers were agriculturalists.



*The Albany district on the Eastern Cape Frontier
(map by John Lambert)*

With cramped and unhealthy conditions on board ship, tensions arose even before they arrived in the Cape and some parties disintegrated even before they landed. Droughts and floods in the following years contributed to a failure by most settlers to make a living. By the end of 1822 most labourers and members of joint-stock parties had broken their contracts, with two-thirds, in particular the craftsmen and tradesmen, having either left the Cape or dispersed to the colony's towns. This enabled a number of individual settlers, mainly party leaders, to obtain large landholdings. By turning to less labour-intensive farming such as wool, some settlers prospered. The wool industry

expanded rapidly and by 1827 Merino and Saxony sheep were being imported. After Port Elizabeth became a free port in the early 1830s, sheep farming took off, encouraged by a rapidly escalating demand for raw wool in Britain and the easing of tariffs on colonial goods. Wool exports increased from 4 500 lbs in 1830 to 1,264 million lbs, valued at £58 704, in 1843. Grahamstown and Port Elizabeth became important centres and settler traders established a presence in towns such as Cradock, Colesberg, Uitenhage and Graaff-Reinet. They introduced free trade and industry into the colony's essentially pre-industrial agrarian economy, and opened southern Africa to UK markets.

Settlers were mainly ignorant of the fact that they were occupying territory that had been contested by burghers and Xhosa since the late 18th century. They were certainly not aware that the main purpose of their settlement was to defend and stabilise the frontier along the Fish River. They employed Khoekhoen as herdsmen and servants, and soon they shared a similar outlook to that of the burghers and were in favour of pass controls. Meanwhile, the Xhosa were determined to repossess their lands in Albany. To counter this, British officials placed one settler party on an established Xhosa crossing on the Fish River and another around a red-clay pit used by the Xhosa. There were frequent Xhosa attacks, and official inability to offer protection. Few settlers understood Xhosa grievances or appreciated the destitution, land hunger and anger they experienced as a result of conflicts before 1820. Many settlers saw the Xhosa as potential labour and trading partners rather than enemies and believed that Xhosa cattle raiding resulted from the prohibitions of both. The Sixth Frontier War erupted in December 1834 when up to 20 000 Xhosa launched a sudden attack on homesteads and villages. Settlers, burghers, Khoekhoen and non-Xhosa saw their possessions and homes destroyed. The war and its aftermath marked the starting point of a settler frontier tradition that had little in common with the liberal and humanitarian developments taking place in Britain and the Western Cape. Although relations between burghers and settlers were generally good, the dominance of British rule built up antagonism to such an extent that it led to the exodus of at least 4 000 burghers from the colony between 1836 and 1840 in the Great Trek. Some settlers that had married into burgher families joined the exodus.

The failure of their farming ventures in Albany led to a number of settlers becoming hunters and traders to the east of the colony. In 1824, a few hunter-traders accompanied by their Khoekhoen servants, established an outpost at Port Natal and opened a wagon trail to Grahamstown. With the permission of the Zulu king, they established themselves as local chiefs, took Zulu 'wives', established homesteads and attracted followers seeking refuge from Shaka's depredations. They numbered 40 by 1839 when Voortrekkers established the Republic of Natalia. Their children, either from African or Khoekhoen women, formed the nucleus of Natal's 'coloured' population.

By the end of the 1830s the British in the Cape had become part of a complex multiracial society, but one in which they maintained a distinct British identity. Merchants had become Cape Town's first middle class. Unlike in Britain at that time, involvement in trade and commerce was no barrier to social acceptability. In the Eastern Cape, with the departure of so many burgher families, the evolution of an Anglo-Afrikaner society came to an end and ensured that the region would be dominated by the English. There was to be a similar development in Natal, where the introduction of British rule in 1843 led to an exodus of Boer families to the interior. The introduction of the Byrne settlers in 1849/50 resulted in a predominantly British white population in which Boers were to be a distinctive minority, mainly focused on Northern Natal. The Byrne settlement also meant that the hunter/trader experience of intermarriage with Zulu women at Port

Natal became essentially an anomaly in southern Africa. The hierarchy and class system imported from the UK was replaced by an identity shaped in relation and in opposition to the people among whom the settlers began to live, namely burgher and indigenous peoples.

Report by Pamela Küstner

Concluding remarks: Annual School 2011

Dr Alex Schoeman, School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand

Dr Alex Schoeman summarised and commented on the day's proceedings in a very proficient manner. She said that the symposium had investigated the making of modern South Africa. Although it had concentrated on the last 500 years, this process had in fact been going on for at least 1 000 years and the archaeological depth should not be lost. A theme of hybridisation and difference had run through a number of presentations in the process of addressing the reshaping of the political and possibly even the cultural landscape to create the South Africa of today. An example was the possible cultural influence Portuguese shipwreck parties had on the indigenous population when travelling up the KwaZulu-Natal coast to Delagoa Bay. Sometimes major outcomes broke with the evolutionary trend, as indicated by Fred Morton in his paper. There was also an environmental impact as evident from historical developments in the Cape and KwaZulu-Natal.

The interaction of the peoples of the region led to a key shift in political development and raised the question of how South African's relate to the world as a whole. It impacted on the internal regulation of communities, on their homogeneity and heritage, and resulted in fluidity of the landscape. In the conflation of race and identity South Africa's organisational structure was established, with outcomes such as the colour bar and socio-economic effects. The day's lectures had highlighted the archaeologists' engagement with historians and vice versa, a co-operation that was essential when trying to establish past events. Dr Schoeman concluded with the remark that, in the end, archaeology is fundamentally political in nature.

Report by Reinoud Boers

EXCURSIONS AND OUTINGS

Exploring the hills of the Suikerbosrand around Balfour

(10 and 11 September 2011)

Led by Anna Batchelor Steyn, archaeologist and member of the Trans-Vaal Branch committee, and Alkis Doucakis, an amateur historian

Excursion participants and members of local families, in particular the Mosterts, met Anna Batchelor and Alkis Doucakis at Mondoro Guest Lodge near Balfour in Mpumalanga on Saturday morning. After welcome cup of coffee, cakes and biscuits, Alkis kicked off with

a brief summary of the prehistory and history of the Suikerbosrand, covering the following periods and events:

- The Late Iron Age (LSA) settlements: 1450-1550
- The Voortrekkers: 1835-1837
- Gold and coal mining: 1885-1900
- The Anglo-Boer War: 1899-1902
- Herbert Baker, architect of the Welgelegen Manor House in 1912 and of other homes in the Balfour area

The participants then went on to complete the following programme on Saturday and Sunday.

The Voortrekkers in the Spruytrus area

The Voortrekker leader Gert Maritz and members of his trek established a laager of 110 wagons in the Spruytrus/Blinkpoort area on the banks of the Suikerbosrand River in September 1837, and remained there until December. After the Battle of Vegkop, his trek joined that of Piet Retief, which was on the way to Natal. Alkis had first looked for traces of the laager along the railway line at Spruytrushalt, but could not find anything since the railway line had been rerouted in 1959. He also could not find any indication of the laager in aerial photos taken in 1960, but did find two ellipses on aerial photos taken of Portion 4 of the farm Bloempoot in 1945. The outer ring of the laager consisted of wagons with sandstone pushed in between the wheels. An inner laager protected the women, children, sick and elderly, who were left behind during the second punitive expedition against Mzilikazi. The Ndebele were defeated at the Battle of Vegkop on 19 October 1837.

During an excavation of the laager site, no Voortrekker artefacts were found other than part of a children's slate. However, an Iron Age stone-cutting tool was also found. The Voortrekkers hunted elephant and tusks were found in the Groenfontein pan. The road leading to the laager site was cut in 1938 for the centenary of the Great Trek. Travelling in 4x4 vehicles, we stopped at the following viewpoints:

Viewsite 1: We looked at the Maritz laager site and the Haarhof Dam beyond from the Poortjie Road.

Viewsite 2: On Johnny Steyn's farm Blinkpoort we saw the remains of the sandstone used to help protect the laager. It had been removed for the fields and dumped in a heap on a small rise. The laager site was documented by Rev. Noel Roberts, who interviewed parishioners on his 'huisbesoek' in the area. Although some historians have disputed the establishment of the laager, archives have confirmed Roberts' record of the site.

Viewsite 3: We walked through stone-walled structures of the central cattle kraal pattern to a narrow drywall stone house discovered by local farmer Ludwig Ankiewicz near the Haarhof



Heinrich Kammeyer explaining the architecture of an early Boer homestead

Dam. A large old apple tree in front of the house was in full blossom. The house had not been visited by archaeologists before. The walls were constructed of oukclip, but had no foundations. ArchSoc member and architect Heinrich Kammeyer said that the site would have been protected from the cold south and east winds, and that the glassless windows would have been covered by cotton blinds dipped in wax. Partitions in the house would have been made from reeds or skins. The thatched roof would later have been replaced by corrugated iron. The house is similar in structure to a stone house built in 1880 by General de Wet 50 km to the south. Next to the house we saw a stone terrace that was probably associated with LIA inhabitants.

The geology of the Suikerbosrand

We stopped for a picnic lunch on the bank of the Haarhof Dam and had a talk about the geology of the area by ArchSoc member Joe de Beer. The rocks in the area belong to the Witwatersrand Supergroup and are around 2,75 million years old. But the rocks in the immediate area are quartzite, a metamorphic rock that was originally a sedimentary rock (sandstone) that was highly altered or metamorphosed by earth forces. Overlying the Witwatersrand Supergroup are rocks of the Ventersdorp Supergroup consisting of andesitic lavas that are extrusive igneous rocks. The white inclusions are gas bubbles filled with a secondary material, called amygdales and the lava is called an amygdaloidal andesite. We saw some beautiful samples of this rock in the garden of Mondoro.

Stone-walled structures of the Suikerbosrand

Anna Batchelor and Heinrich Kammeyer talked about the nearby stone-walled structures of the Suikerbosrand before we went to explore them. They had been studied by Revil Mason, Tim Maggs, Tom Huffman and others. Huffman carried out a large-scale mapping project to ascertain the impact the proposed Balfour Dam on the structures. As a result, the dam was built beyond the area of the structures. The earliest structures date to 1450. Black farmers who migrated east and then south from west Africa first settled about 50 km south at Ntsuanatsatsi. A creation story has all people originating from there, and the reed dance and reed initiation masks derive from that area. The Suikerbosrand structures show a common pattern with a central cattle kraal and small kraals for calves alongside. The inside surface is lower inside than outside as the dung layer was subsequently removed for fuel. Extensive boundary walls enclosed the settlements. The inhabitants grew cucurbits, sorghum, five-finger millet, legumes and pumpkins in small vegetable gardens. Maize was grown after its introduction to Mozambique by the Portuguese around 1550. We explored several structures and looked for scallop patterns in the outer walls that would date the structures to the 1550 to 1820 period.

Five-arch railway bridge and Anglo-Boer War block house

Later in the afternoon we travelled to the five-arch railway bridge built by the British in 1900 after the original steel bridge across the river had been destroyed by the Boers. The original piers of the steel bridge can still be seen. Alkis asked Reinoud Boers to read a short passage from a book by Ian Uys on the



Trooping up the concrete stairs to the railway line to view the block house

Heidelbergers in the Anglo-Boer War. They attacked the British here in Suikersbospos on 21 July 1900. In the six-hour battle two wounded Boers were treated by a British doctor from Heidelberg, although they died later. Five British soldiers were wounded. We then climbed concrete stairs to the level of the railway line, crossed it and climbed the hill to the site of the block house. We studied the layout and could see the place where the British soldiers had camped in their tents. Nearby were two large concrete water tanks used to water the steam locomotives of the past.

Panel discussion on aspects of local geology, archaeology and history

At Mondoro in the evening there was a panel discussion between Anna, Ludwig Ankiewicz, Heinrich Kammeyer and Joe de Beer. Ludwig spoke about his long association with the Mostert family and the need for people of the area to find out about the history of the region. He told us that the Suikerbosrand was the site of the first stone structures on the Highveld because there was sufficient nutrition in the vegetation to pasture and graze cattle all year round. There are many water pans in the area and migrating antelope had loosened the soil. Much of the dust lifted by the winds has settled against the southern slopes of the 'knop', making it the best agricultural land in the area. The San people had occupied the area before black farmers settled there. The first clans in the area, the Fokeng, lived here from 1650 for about 200 years. They built kraals on the tops of the hills. Ankiewicz told us that on his farm there are kraals that have 1,2 m deep ash heaps stretching over 2 km. He had found a skull and three arrowheads in an ash heap, which he believes dated from 1821 or 1822. He also found the remains of ten other bodies buried in a foetal position in ash heaps next to the walls of huts, with their heads turned to Tsatse or Tafelkop to pay tribute to the ancestors at the cave there. He was fined for having the skeletons, so he reburied them. For our benefit, Ludwig displayed a range of artefacts he had found on his farm, including pots, carved bird bones, stone tools and various iron implements. He also has fossils of a winged creature predating the dinosaurs found by Gideon Groenewald on the banks of the Vaal River in the Warden area.

Ludwig then related some local stories. One was about a light-skinned chief at Leeuwkop/Pembe who was not accepted by the people and had to leave the region. Another was about a farmer called L P E Glad who had four daughters and a son. He arranged their marriage to the four sons and a daughter of another farmer. In 1906 or 1907 a farmer came across pips and skins of fruit from his orchard and discovered that it had been stripped by 21 Chinese labourers discharged from the mines. He found them in a cave, tied their waist thongs together and contacted the police. Marius Mostert's grandfather had them repatriated to China. There was some concern that they were cannibals.

The Iron Age settlers in the region had insufficient wood or coal to smelt iron, so they bartered for iron objects with people living to the north-west, such as at Klipriviersberg and Melville Koppies. Heinrich mentioned that there were many similarities in the Balfour area's settlement structures and especially the thatch-and-clay hut construction and hut decorations with those further south and in Lesotho. Kotie Mostert, Anna's sister, mentioned that she had started and archive of Mpumalanga history at the local school for the benefit of residents. Books such as those written by Revil Mason, Tom Huffman, David Hammond-Tooke and Tim Maggs provided a wealth of information about the Iron Age and San people of the area. Alkis talked about books on the local history of the region.

Report by Anna Batchelor Steyn and Hilary Geber

Stone walling in the Suikerbosrand

On the Sunday morning participants climbed aboard Mondoro's game viewing vehicles and were

taken to see stone walling high up in the nearby hills. Zebra, wildebeest, blesbok and ostrich scattered as we approached. Anna work-shopped the site with the aid of Tom Huffman's Handbook to the Iron Age. Features of the Central Cattle Pattern were pointed out and scallops were identified round the edge of the hut circles. The walling was thought to be partly of the Klipriviersberg style and partly the Type V style. This would indicate settlement after 1750 when the climate would have been warm and wet. People would have lived on the hilltops for protection, leaving the fertile valleys for agriculture. In the early 19th century the arrival of new settlers, drought and the destabilising effect of the Difaqane resulted in competition for land and could account for the abandonment of settlements.

Welgelegen Manor House

Participants enjoyed a scenic drive down to the valley on the way to Welgelegen Manor House. This large house, now a hotel, was built by Andries Mostert with a passion to keep his family history alive. Born in Paarl in 1868, his ambition was to buy back the much-loved Mostert estates at Rondebosch, including the beautiful Welgelegen farmstead, which had been lost through bankruptcy. Mostert worked in Kimberley and Barberton, accumulating enough money to bid for the old estate when it came up for sale. Unfortunately, he was beaten to it by Cecil John Rhodes. Disappointed but resourceful, Mostert bought land between Balfour and Nigel and commissioned Sir Herbert Baker to design him his own Welgelegen. Built in 1912 in Cape Dutch style, the house bears the trademark of the Arts and Crafts movement, which embodied a reaction against the machine age. The symmetry in the architecture and the placement of furnishings and decorations is inspired by nature and is notably visible in the nautilus shell and acanthus leaves.



Anna Batchelor explaining Klipriviersberg-type stone walling in the hills above Mondoro



The front entrance of the Mostert family's Welgelegen Manor House (photo Pamela Küstner)

In this home, Mostert raised three sons and four daughters, all of whom retained the Mostert name as part of their surname. He made a name for himself in many business arenas, from a directorship of The National Bank of South Africa to involvement in the founding of Iscor. The grounds of Welgelegen are extensive and contain a private mausoleum designed by Gerard Moerdyk. It is built of sandstone mined on the farm and contains seven bodies, all embalmed as specified in the founder's will. Today, the house is furnished in

period style and stands as an isolated edifice on the veld, a dream home left behind by progress. Grandsons of Andries Mostert joined us for a generous finger lunch and entertained us with stories about the family. Afterwards we returned home, just a short drive to the very different world of Johannesburg.

Report by Pamela Küstner

Liliesleaf Farm (9 February 2012)

Led by Jo Buitendach of Past Experiences, BA (Hons) in archaeology (Wits)

In 1961 Rivonia was a peri-urban area situated about 25 km to the north of Johannesburg, a township of small holdings, big trees and dirt roads. The 28 acre Liliesleaf Farm was considered by the ANC to provide it with the seclusion required to plot the overthrow of the apartheid government. The property was bought by Arthur Goldreich and financed in part by various overseas communist parties. Goldreich settled on Liliesleaf with his wife and two sons. He walked round in jodhpurs to lend some authenticity to the 'farm' scene. Attorney Nelson Mandela lived there as a gardener and cook, and wore the expected blue overalls. He adopted the name David Motsamayi, which he 'borrowed' from one of his clients. The homestead became the centre of Operation Mayibuye, as the ANC's plan to start an armed struggle was called. Goldberg, who was the 'techi' of the group, described the 'exhilarating atmosphere where we ate, slept, dreamt and worked at how to make a revolution' Much planning went into the purchase of the farm, a kombi, weapons, etc. and the training of operatives.

Apart from an attractive thatched cottage, Liliesleaf had several outbuildings that were used as 'servants' quarters, a garage and store rooms. The only evidence of farming was a chicken coup. When the ANC High Command had occupied Liliesleaf for about two years it became a little uneasy about the location, especially after Mandela had been arrested and imprisoned on charges of inciting workers to strike and leaving the country without a passport. Concerns centred on a possible police spy and the lax security at Liliesleaf. A smallholding, Travallyn, had already been bought near Krugersdorp and the plan was to relocate Umkhonto we Sizwe to that location. However, on the fateful afternoon of 11 July 1963, while seven members were planning round the dining room table, with papers and plans lying about, the police arrived in a dry cleaners van labelled 'Trade Steam Presses'. While the group hastily tried to shove documents out of sight, the police led by Sergeant John Kennedy, burst in and arrested the top echelon of the ANC. Arthur Goldreich arrived later, only to walk straight into the arms of the police. The hapless James Kantor, Arthur Goldreich's brother in law who was not a member of the group, was also arrested when he visited the next day to feed the chickens.



Liliesleaf cottage and outbuildings (photos: Alan Woodman)

In the course of time Liliesleaf became a private home and guest house, and was subsequently split up into smaller residential plots. It now occupies two residential sites. The original buildings were restored, the Liliesleaf Resource Centre and the Liberation Centre were added, and it was opened as a museum in June 2008. Our tour began as we walked along Liberation Path, which is lined with authentic struggle posters. Our excellent guide, Jo Buitendach, met us at the Liberation Centre where we were shown a film in the comfortable hall-cum-theatre. For the older participants it was step back in time, bringing back memories that we had probably chosen to forget. The film showed the highlights of Sharpeville, the 1976 riots and other historical events. We asked Jo how so much material was available and she said that the apartheid government had kept meticulous records of every thing and every event – most useful to historians and archivists!

Our next site was the viewing deck built over the tearoom to gain an overview of the surrounding area. The view was worth the rather hazardous unguarded steps, but it was hard to visualise a farm in this suburban setting. Questions were asked about the untended look of the garden and Jo explained that modern ecological practices were applied at the site, which entailed leaving areas untended to allow nature to regenerate. Next we visited what is called the Manor House. As buildings more than 60 years old cannot be altered, according to a ruling of the Historical Heritage Trust, the exterior of this 1930s house has remained unchanged, with the exception of the former thatch on the roof. It was restored by the architectural firm of Mashebane Rose. Jo drew our attention to a wall near the porch on which Mandela placed articles for target practice. With beautifully restored parquet floors, the house is a state-of-the-art museum with all sorts of technical gadgets on the ceilings. In the centre of the dining room stands a magic table, which at a touch of a button comes alive with all sorts of bits of history. Another button brings forth voices from the past. Other rooms have pictures of the walls that can be ‘heard’ telling their stories. A lot of the photos are by Alf Khumalo. The museum was a bit small for our large group to sample all the wonderful ‘come-alive’ things, but inspired us to come on another visit. Many displays illustrate the development of the movement, which accommodated the Communist Party, the ANC and many middle-class Jewish people. Outside the back door is an innocent-looking coalbunker that revealed a typewriter and some documents.

The outbuildings have undergone considerable restoration, with walling carefully chipped to show the original brick. Nicolas Wolpe, son of activist Harold Wolpe, together with archaeologists and other experts have been meticulous in their work. The garage and the other outbuildings housed stores and a freedom radio. Parked nearby is a large overland vehicle similar to the one used by the ANC to import their arsenal from overseas, hidden below the feet of unsuspecting overland travellers! At the back of the property is the Resource Centre, which continues the Liliesleaf tradition of intellectual discourse. Here the historical records and materials of the Struggle are kept. Jo explained that the current trend in museums, especially those that encompass an existing dwelling or site, is to build them in contrast rather than in matching design. So, while the Manor House and the outbuildings have been restored to the style of the time, the new buildings are modern in design. The pathways are designed to connect the Liberation Path with the Resource Centre to mark a journey of enlightenment from liberation to transformation. Archaeologists and others have dug and searched for the ‘Mandela pistol’, which people are convinced is buried at this site. Or it could be buried on another part of the original site. Perhaps it will be one of those enduring and enticing mysteries like the Kruger Millions or the Holy Grail!

Jo Buitendach enthralled us with her enthusiasm, research and knowledge. Most of our group indicated that they would want to revisit Liliesleaf and get a closer and more in depth look at this interesting and carefully designed museum.

Report by Gerry Gallow

Gold and geology around Barberton (30 March to 1 April 2012)

Led by archaeologist Marlies Liebenberg, councillor on the Mpumalanga Heritage Resources Authority and exco member of the Mpumalanga Historical Interest Group

Friday 30 March

Barberton is situated 350 km east of Pretoria in the picturesque surroundings of the De Kaap Valley and has a strong sense of history. It was established following the discovery of gold in 1884, when prospectors came from all over the world to pan the rich streams. ArchSoc members ready to soak up the old mining atmosphere were welcomed by Marlies Liebenberg who had planned a memorable weekend. With more information than she could part with, her enthusiasm about this well-maintained ‘Gem of the Lowveld’ was infectious.

On Friday afternoon Marlies immediately caught our imagination by taking us to see the murals in the old and rather derelict Impala Hotel. They were painted in the early 20th century by Genal, a wandering artist and ex-Foreign Legionnaire who walked the length of Africa. He paid his way by painting murals in public buildings, private houses, hotels and even churches, his tariff being 10 shillings a yard. The paintings showed a bushveld landscape teeming with game and made one think of transport riders, wagon routes and *Jock of the Bushveld*.

A short walk along Pilgrim Street took us to the Barberton Museum where the history of Barberton began to unfold for us. The area’s geological history goes back 3,5 billion years. The Barberton Greenstone Belt has the best preserved sequence of volcanic and sedimentary rocks on earth and there is a major drive for international UNESCO recognition. Marlies did the pre-historical research for a UNESCO Dossier for the Barberton Makhonjwa Mountainland World Heritage Site. We examined geological specimens and an exhibit of stone tools that contained text-book black chert material from Middle Stone Age sites on local farms. There were Swazi tools from 200 to 300 years ago, including fish traps, a chopping and a war axe, and stabbing and throwing assegais. In the ethnography section some members played a game of *Intjuba* on a board set out on a table. We saw the life of the digger symbolised in three sculptures by Bobby Lawrence: Hope, Despair and Success.

In June 1884 payable gold reef was discovered by Henry Barber and his cousin Fred. Just a month later, on 24 July, the Gold Commissioner David Walson declared a township naming it in their honour and broke a bottle of gin on the Barber Reef. A Diggers’ Committee was quickly formed and a stamp battery erected. The first crushing of 100 t of ore yielded five ounces of gold and soon the gold rush became a stampede. Early prospectors had vast practical experience and skill, using the most basic tool, the gold pan, blackened with smouldering grass to show up the fine gold. They systematically panned each stream working towards sites that turned out to be the



Marlies Liebenberg telling us about a fascinating aspect of Barberton (photo Anita Arnott)

richest gold deposits ever discovered. Around 300 gold outcrops were found in the first 10 years and despite the use of modern technology there have only been a few additional finds in more recent times. In 1912 the famous Peacock gold nugget, weighing 5,1 kg, came to light. The diggers were quickly followed by traders, hoteliers, barmaids, prostitutes, journalists, a stock exchange and service industries. Eventually the tents gave way to wood and iron buildings. A lively social life developed, with anything from Gilbert and Sullivan productions to Football Club Fancy Dress Balls. The discovery of gold on the Witwatersrand in 1886 caused the pendulum to swing away from Barberton, but the Sheba Mine started in 1885 is still in production and is reputed to be the oldest continually producing gold mine in the world. Many old photographs and a wealth of memorabilia conjure up the past at the Barberton Museum. You can almost hear the sound of the old picks and shovels.

The tour ended with a visit to the next-door Umjindi Jewellery Project. Manager Flicka Goslett received us and told us about the initiative. Her enthusiasm was catching. Launched by Vukani Ubuntu, service providers to the Umjindi Municipality in July 2002, the Umjindi is the largest community development project in Mpumalanga and the only such project to survive similar initiatives started around the same time in Pretoria and Virginia. It has to date trained 60 jewellery manufacture and design students from the disadvantaged community. A unique range of jewellery is manufactured exclusively from the oldest gold mined commercially on earth. The learners begin their training using copper and brass, and progress to silver and gold as they are prepared for trade tests to become certificated artisans. Master goldsmith Ewart van Engelenhoven has recently joined Umjindi. Glass cases were filled with tempting pieces of jewellery for sale and most of us said, 'We'll be back!' Flicka expressed her passion for her work by telling us about the help being given to individuals to realise their full potential, providing quality careers and artisanal knowledge, promoting South African art locally and internationally, and creating jobs.

Stimulated by all we had seen, it was time for a leisurely Heritage Walk through the town, led by Marlies. Above us ran the asbestos cableway, now idle, connecting the closed Bulembu chrysotile asbestos mine in Swaziland with Barberton. At 23,6 km long it was the longest industrial aerial cableway in the world. Its coco pans ferried asbestos to the railhead in Barberton and took back coal. As it was not strong enough to carry people stories about individuals catching a free ride and freezing to death along the way are urban legends. Our first stop was at a British blockhouse from the Anglo-Boer War. It was occupied by the Town Guard who had the role of protecting the gold at the stamp battery. The floods of Cyclone Demoina in 1984 changed the



The remains of South Africa's first stock exchange (photo Pamela Küstner)

contours of the nearby landscape and the blockhouse is now seriously undercut. Moving on, we came to the double storey Lewis and Marks Building, which was erected by Sammy Marks as the first multi-storey building in Barberton, an indication of his ever-present entrepreneurial spirit. Further down the road the Phoenix Hotel hinted at its fashionable past with Art Deco doors and staircase. The Barberton Club had been the gathering place for mining men. Abe Bailey, Alfred Beit and Percy Fitzpatrick were members and the original roadside hitching posts are still there. Next door, the De Kaap Gold Stock Exchange is a rather a sad sight. Built during Bar-

berton's fabulous boom years, it was the first stock exchange in South Africa. Today only the façade remains. Our walk ended at the peaceful Anglican Church. The pulpit is made of local quartz and the baptismal font of verdite, a dark green ornamental stone mined locally. In the evening we all gathered in streaming rain for a braai, fortunately under cover, at the Moth Club, where Moth members Clifford and Alan served drinks and looked after us with great enthusiasm.

Report by Pamela Küstner

Saturday 31 March

The Barberton Greenstone Belt has brought the town widespread fame in mining circles for producing the oldest geological gold in the world. Today the town still has four operating gold mines over 100 years old, namely Agnes, Fairview established in 1887 by the Kidson Reef Gold Mining Company, New Consort established in 1885 and Sheba. This sparkling morning we drove further up the valley to visit the 127-year-old Agnes mine for an underground morning through the Tiger Trap historical mine and gold panning. Here we met the knowledgeable Andrea Botha of Barberton Odyssey who told us about the mine's history. Agnes is one of four mines that have produced 70 per cent of Barberton's gold, with the remaining 30 per cent coming from 350 additional operations. The Agnes deposits were discovered in the Moodey's, Sheba and Saddleback faults by the Barberton pioneer, Auguste Robert, known as 'French Bob', on 3 June 1883. The mine was named after Jessie Agnes, the wife of the first owner, Jack Greaves. After some time he sold the mine for about £1 000. The pioneers hardly scratched the surface of the mine's full potential, interrupted as they were by the Boer War and the First World War. The sulphides in the Barberton greenstone ore provided the miners with great extraction difficulties. Later, Agnes built an adit that enabled mining to continue to the Woodbine shaft, which has a capacity of 14 000 t/m. In December 2008 the mine was bought for R16,2 million by a mining consortium that revived the mine and is producing 18 000 t of ore a month. The mine is now employs massive underground mechanised mining, with large-scale cut-and-fill being carried out in the 35 m to 40 m wide Galaxy reefs, an ore body containing 4,6 g/t gold along a strike length of 1 200 m.

After Andrea had seen to it that we were fitted out with gumboots, hard hats and lamps, we proceeded to the Tiger Trap mine and entered the narrow adit. Mining in greenstone ore was historically characterised by 'vein chasing through small holes'. We walked into the mine for quite a distance, with Andrea stopping to point out interesting aspects. Returning to the open air, we were introduced to Danny Brink of the SA Gold Panning Association who took us down to the stream nearby. Each participant was given a flat pan and Danny patiently tried to teach us how to rotate a pan containing some gravel, sand and mud from the riverbed in a smooth movement, sloping water and lighter non-gold bearing material over the side until there just a small tail of fine gravel remained in the pan. The tail is then inspected for gold. Two of us, Mapule Segale and



Happy ArchSoc members panning for gold (photo Anita Arnott)

Reinoud Boers, actually came up with tiny fragments of gold, but Mapule was certainly the most adept, finding seven pieces. Everyone had great fun and some got quite carried away, digging for material in what seemed to be especially promising areas to come up with gold.

The morning ended with a picnic at Agnes mine's braai area and then we drove back to Barberton to meet up with ecologist Tony Ferrar, a member of the Wildlife and Environment Society of SA, for a geo-tour up the Bulembu Road to Swaziland. At various stops, Tony showed us aspects of the 3,5 million-year-old geology of the area. At the first stop, while looking over the relatively pristine Barberton Mountainland, he told us that the Barberton Greenstone Belt consisted of igneous and sedimentary rocks dating from 3,2 to 2,7 billion years ago. Elsewhere in the world such old formations had eroded away, but between Barberton and Swaziland 'this chip of rock is still floating on the surface of the earth' as granite bubbles had floated up the Greenstone Belt and kept it up. He said that geologists had learned more from this area than anywhere else in the world. The whole landscape was originally covered by Transvaal sedimentary rock, which had eroded away. We looked at bands of schist formed where different rock types met under pressure. Talc and soapstone were formed in the same manner.

Our next stop was at an old mine site, one of many in the Sheba Fault zone. The owner, Tom Andrews, whose descendants still lived in Barberton, had made quite good. He had subsequently extended the road to start a timber industry where we later passed through a 20 km stretch of Sappi Forest, and had eventually completed the road all the way to Bulembu. We looked at 3,3 billion-year-old Moodeys sandstone consisting of finely eroded beach sand with visible indications of ancient neap and spring tides. Here Tony told us the interesting fact that the moon moves away from the earth at 5 cm/y – calculating back, Earth would have 18-day months at the time this formation was deposited. Subsequently, we reached a point from where we had a good view of Eureka City. As men converged on the tiny Barberton mining camp so came the illnesses – tsetse fly infections and malaria. In response to the epidemics in the valley, Eureka City was born on the ridge above, halfway between the Sheba and Fairview mines. In its heyday in 1886, Eureka City boasted three hotels, about a dozen canteens, a race track, music hall and some of the flashiest barmaids in the De Kaap Valley to cater for the 650 digger inhabitants. The town was soon even wilder and more lawless than Barberton. All that remains of it now are the ruins of the old Victoria Hotel and its neighbouring Sheba school, and its beautiful views.

The weather had been threatening all afternoon and our last stop before we broke off the tour in heavy mist was a banded-iron, ochre-rich formation. At 3,25 billion years old, this is the oldest rock on earth and the only rock in which signs of life can be seen. It contains biomass, a black organic material of biological origin. The first life on earth must have been created in this mix of organic and inorganic material. The formation was laid down in a shallow, hot (65 °C), sulphur-rich ocean. On this rock the first stromatolite formations are visible. We missed seeing dove-grey chert formed by lava ash falling into an ancient sea further up the road. The material



3,3 billion-year-old Moodeys Sandstone deposit on the Bulembu road (photo Anita Arnott)

making up the chert is graded by size and is excellent for the production of stone tools. The evening was spent at Pappas Kitchen where we lingered over a good meal and company.

During our discussions the question of who administered Swaziland in the late 1800s arose. Geoff West has subsequently researched this aspect and has established that Swaziland was under the joint protection of Great Britain and the Zuid-Afrikaansche Republiek (ZAR) from 1889 to 1895. ZAR stamps began to be used in the territory from the latter date and in 1895 the territory was incorporated into the ZAR. After the Anglo-Boer War Swaziland came under British authority and became a Protectorate in 1906. Strangely, South African stamps were used in Swaziland until 1933.

Report by Reinoud Boers

Sunday 1 April

After breakfast we set off to view two museum houses that revealed contrasting lifestyles. Bellhaven, built in 1904, is an example of a prefabricated house with corrugated iron outer walls and pressed iron panels in the interior. With its fine furniture and delicate china, piano and sewing cabinet, it depicts an upper class lifestyle. It was built by Mr Robert Nisbet who owned the Barberton Club. Given the Barberton climate, the woman's corset lying on the bed was an uncomfortable sight and the mattresses were made of coir. The huge, heavy cast iron stove made in Durban must have strained the muscles of those who delivered it. Although beautifully appointed, the house had no running water.

Walking along the tree-lined street we had extensive views over the Barberton valley before reaching Stopforth House, the home constructed by English immigrant James Stopforth, a baker and general dealer. This wood and iron house came in kit form from England, arriving by sea in Delagoa Bay and transported to Barberton by ox-wagon. It was occupied by the Stopforth family from 1886 until 1983 and is furnished with the original furniture and household articles used by them up to 1914. The last resident was the daughter Beulah, who had worked at Standard Bank and lived in the house into her old age. Most fascinating was the corrugated iron garden shed that had been the workshop of the two sons, one a qualified farrier and blacksmith, the other a cabinetmaker and builder. When they died, the family simply locked the door and when the museum took over they found a collection of almost 1 000 tools, which fascinated the male participants in particular. The garden was laid out in Victorian style and in its heyday provided plentiful fruit and vegetables for the family.

Our week-end concluded with a generous lunch at the Victorian Tea Garden in Market Square before we headed home over the scenic Nelshoogte and Skurweberg passes.

Report by Pamela Küstner



Murals at the derelict Impala Hotel (photo Pamela Küstner)

Swartkrans Hominid Site (29 April 2012)

Led by Dr Morris Sutton, site supervisor of the Swartkrans Palaeontological Research Project

The Swartkrans cave in the Cradle of Humankind is situated on a hill to the north of the Sterkfontein Caves. It is a rich archaeological site with some of the deposits dated to around two million years ago. Morris Sutton is continuing the work of Dr Bob Brain at this site. He recently completed his PhD at the University of the Witwatersrand with a thesis focusing on the results of new excavations at Swartkrans.

In his talk to us before we entered the site, while we were seated comfortably on stone benches beneath the trees on a perfect autumn day, Dr Sutton mentioned that there were about 16 excavation sites in the Cradle, but that not all the sites carried hominin fossils. The geology of the area had led to significant changes in the landscape over the last 2,5 million years. The dolomite that dominates the area is readily eroded by flowing water, resulting in cave formation. The caves not only sheltered hominins but also various predators such as ancient hyena and leopard that often preyed on hominins. Over the past two million years the world's climate had been dominated by a cycle of ice ages, which had changed the Cradle's environment from one of rich tropical forests to gallery and riverine forests followed by woodlands and then savannah grassland similar to that of today. The fossil deposits of both hominins and animals at Swartkrans were testimony to 'the kill or be killed' life of our predecessors. As erosion of the caves and surface deposits took place so the remains along with stone tools became buried and fossilised in the soils and conglomerates. It was only when miners seeking good deposits of lime in the early 1900s and the 1940s began blasting the calcium carbonate deposits out in the caves that the fossils were noticed by people such as Raymond Dart and Robert Bloom.

Broom 'crossed the road' from Sterkfontein to Swartkrans with funding from California in 1949. He was followed by John Robinson in 1953 and they discovered early hominins that coexisted with *Homo erectus* and *Homo habilis* at Sterkfontein. Robinson became renowned for his studies on Australopithecine teeth. They found a pelvis and vertebrae of a species previously unknown. But the 1950s was an arid decade in palaeontology since the work was considered 'creationist' and 'unbiblical', and was therefore discouraged. In 1965 Dr Brain was appointed chief palaeontologist at the Transvaal Museum and he revived the Swartkrans excavations. He spent every Thursday to Sunday at the site, bringing along his family and living in a caravan. He was able to spend seven years cleaning up the site of debris left by the miners, a luxurious time span that would not be possible today in our world of tight funding. Dr Brain is the one that must be credited for the layout of the site. Swartkrans was purchased by Wits University in 1967, but Dr Brain continued to work on the site and was convinced that the bones in the caves were from scavengers and predators that used the caves for breeding.

Dr Sutton showed us two skull casts, one with a large mandible and flat molars, which suggested that seeds, nuts and roots were ground. The other was an early hominin, the important new *Paranthropus robustus* fossil found in 1948. In a systematic study Dr Brain had refuted Dart's theory that smashed bones indicated that Australopithecines were killer apes and that violence was genetically imprinted. He concluded that our ape-like ancestors were more likely to be victims of carnivores. Studies of skull fossils had suggested that carnivores dragged their victims by the cranium. Brain was a leader in the science of taphonomy, the study pertaining to our hominin ancestors. Bones such as jaw bones were used as tools since they could be used both for cutting and as weapons. A study by Linda Blackwell at Swartkrans in 1998 also proved that

bones were used as digging tools at termite nests. Tooth morphology indicated the varied diet enjoyed by the early inhabitants of Swartkrans. The site is also believed to yield the first evidence of controlled fire, jokingly referred to as South Africa's first braaivleis. Studies showed that pieces of bone found at the site appeared to have been burnt deliberately. Dr Brain found the burnt remains in heaths where white stinkwood, which is common to this area, had been burnt. He believed that this kind of 'fire management' could also have been employed as protection from predators.

After the lecture Dr Sutton led the party down the rock-hewn path to the site below. Dr Brain had laid out the site with grids and walkways, and devoted much research to the natural overburden and underlying cave deposits, discovering that most of the deposits came from a block of breccia clinging to the cave's north wall. Dr Sutton gave us information on the use of modern dating techniques in parallel with test samples, and how such techniques have enabled scientists to refine the dates to greater accuracy. A brave climb down a 10 m ladder led to an area where Morris is excavating *Paranthropus robustus* tools and teeth.

References: Google, *The Story of Earth and Life* by Bruce Rubidge and Spike McCarthy, and *The Cradle of Mankind* by Lee Berger and Brett Hilton-Barber.

Report by Gerry Gallow

Exploring the Waterberg (25 to 27 May 2012)

With Professor Emeritus Lyn Wadley, Richard Wadley and Sam van Coller, owner of Lindani

This outing, capably arranged by Lilith Wynne, former long-standing Trans-Vaal Branch committee member and chairman, was led by Prof. Lyn Wadley, known in particular for her Middle Stone Age (MSA) work at Rose Cottage Cave in the Free State and Sibudu in KwaZulu-Natal. She focused on archaeological aspects, while her husband, Richard Wadley, described the geological and geographic features of the Waterberg. Accommodation and the sites were located on Sam and Peg van Coller's game farm, Lindani. Sam contributed greatly to the



View over part of Lindani from the 'Giraffe' site (photo Reinoud Boers)

weekend's activities by special preparing access roads and paths, and by providing background information.

Lyn, who has an MA (Archaeology) from the University of Cape Town (UCT) and a PhD (Archaeology) from Wits, is affiliated jointly with the Wit's School of Geography, Archaeology and Environmental Studies and its Institute for Human Evolution. In 2011 the National Research Foundation appointed her as an A-rated scientist. Richard Wadley has a BSC (Hons) in geology from UCT. He started out with Johannesburg Consolidated Investments (JCI) as an exploration geologist and graduated to management and various directorships, including the Richards Bay Coal Terminal, Tavistock Mines, Consolidated Murchison and Kumba Resources from which he retired to run his own mining consultancy in 2005.

Saturday 26 May

Participants settled into various comfortable Lindani lodges on Friday and met early Saturday morning for an overview and a briefing at the Van Coller home surrounded by Peg's beautiful flower and vegetable gardens. Lyn painted an historical perspective of the sites. The discovery of MSA tools on this plateau indicates an occupation by hunter-gatherers around 25 000 to 30 000 years ago. Interestingly, the material from which the tools were produced is not found locally. Subsequently, no occupation is apparent until 1 000 years ago when evidence of Iron Age (IA) occupation and hunter-gatherers has been found. Lyn speculated that the early hunter-gatherers, despite the fertility of the area, moved away for health reasons, probably because of the area's infestation by disease-carrying ticks, which are a major problem even today. There is evidence that the hunter-gatherers settled on lower ground near Ellisras, a warmer area. They apparently returned 1 000 years ago with the farmers/herders with whom they had a symbiotic relationship. Small sorghum and millet grinding stones and bowls found in the area are evidence of the occupation at this time. The herders shared some beliefs with the hunter-gatherers, in particular the practice of rainmaking. The herders used the hunter-gatherer shamans to perform ceremonies designed to persuade the ancestors to bring on rain. The hunter-gatherers drew rock art as a means of communication with the ancestors.

Richard then explained the formation of the Waterberg, which consists of weathered sandstones that are the remnants of rubble flows from a high mountain range pushed up some 1,8 billion years ago in the present-day Tzaneen area. Heavy rains would have eroded these mountains over millions of years, depositing the sand to a depth of 4 000 m in the Waterberg. The effect of heat and pressure eventually transformed these sands into sandstone. Later tectonic movements created the undulations seen today. The party then condensed into 4x4s and travelled through the well-stocked game farm to the well-hidden 'Giraffe' site, which has not been seen by members of the public before. Situated in a cliff offering a great view, we visited the confined space in relays for a discussion on the rock art images by Lyn. The following significant representations were seen at the site:

- A giraffe with a clearly delineated elongated neck. Lyn explained that the elongation was an expression of the feelings of the shaman who typically has the experience of his body being 'stretched' during a trance. It has been suggested that the giraffe marking pattern is symbolic of rain clouds, hence its use as a rainmaking device.
- A therianthrope representation of a hartebeest/man standing up on its back legs and with shortened front legs. Lyn said that such rainmaking-related therianthropes were common to the area.
- Figures with a 'buckled-over stance', which might represent the shaman in a trance when he

would frequently suffer stomach pains.

- A shaman with a bow and arrow and what appeared to be the horns of a giraffe, or perhaps those of a preying mantis.
- A hunter with a bow and arrow and prey struck with an arrow in the last throes of death, possibly a metaphor for the shaman himself. The trance can be interpreted as an experience of death.

Other paintings were seen at the site in varying states of preservation. These are all dated to about 1 000 years old and are thus contiguous with IA occupation. After the scramble down from the site, Richard with input from Morris Viljoen (Professor Emeritus at Wits) elaborated on the region's geological formation. He explained that the direction of the wavy lines in the sandstone indicated the direction of the water flow when the sand was deposited. Water had flowed towards the southwest, probably ending up in what is now Botswana. Fortunately for nature lovers, there are no exploitable mineral deposits in the Waterberg. Nor does the sandstone contain any fossils since these were laid down 1,6 to 2,0 billion years ago when the only life on Earth was marine-based stromatolytes pumping out oxygen. The dissipation of energy in the water flow was clearly indicated by the deposition of pebbles higher up the system and fine sand further down. The sandstone contained scattered globules of iron ore and at these places iron-making sites were typically found. A picnic lunch by the scenic Skebenga dam concluded the morning's activities.

Report by Hilary Gerber



*Giraffe with elongated neck at Lindani's 'Giraffe' site
(photo Reinoud Boers)*



*Richard Wadley on the ledge explaining a geological aspect to the group below
(photo Reinoud Boers)*

In the afternoon we visited a rocky outcrop screened by trees and bush hosting five sites. Potsherds, bits of bone and other artefacts are found at the base of massive rocks. This location may have been lived in or may have been an initiation site. The first site is a large, complex panel with super-positioned art. The oldest of these are geometric finger-painted forms typically made by herders on their way to today's Free State with their sheep and goats. The faded forms are painted in black and represent spoor, probably of zebra, an animal important to San women

initiation ceremonies. Initiated women have zebra stripes tattooed on their thighs. Over these are fine line paintings, such as a female kudu in the mating position, submissive with straight backs, necks low and chins out. San women are equated with meat and men hunt the women. Above the kudu is a line of hunters with weapons. The arrows appear broken because the white paint of the shafts is fugitive. There is also a hartebeest therianthrope, an upside down figure and two very small figures. Finger dots on the painting were made by herders. Zigzags in the painting may indicate lightning or the num coming out of the body of a shaman. There may be an image of eland horns below the kudu. The 'frame' of the panel is manganese staining seeping out of the rock. It is possible that the white seepage inside the black frame was used as a canvas.



'Framed' painting with geometric finger-painted herder art overlain by fine-line San paintings (above)



Two of the Late White men in the 'Waterberg' posture (right)
(Photos Reinoud Boers)

The second panel is a faded Late White painting of four men in profile facing to the left in the 'Waterberg' posture. They have erect penises and are holding long narrow staffs. One staff is extended toward the penis. There are three hartebeest therianthropes with long back legs and short forelegs/arms. This panel also features a rare red outline of a cow with four finger-painted figures near it. Opposite, across a narrow passage, is a line of six polished cupules that would have been used to make medicinal plants and snuff offerings to the ancestors. The next site is a farmer site featuring a white painting with some finger-painting figures, very faded. On the outcrop there is a trans-dance site with a painting of a woman clapping her hands with her fingers widely spread. A male shaman painting is also found.

Subsequently we drove to another, very treed part of the farm to look for herds of TB-free buffalo being bred by one of the Van Coller sons, Alan. Our quest was unfortunately in vain, but the day ended with a very enjoyable braai at Motseng lodge, where the Van Collers had provided everything required.

Report by John McManus

Sunday 27 May

This sparkling morning we congregated at Bush Camp. Lyn talked about and identified the trees round the camp, which include Moepel, Maytenus, Pappae, Combretum, Phetocarpus, Ficus and many more. Richard next discussed termitaria. At Lindani the termitaria have long funnels to

control the internal temperature of the termite mound, which does not vary much more than 1 °C at any one time. About one third of the termitaria are above ground and two thirds underground. The queen is fed on fungus grown by the worker termites on internal shelves. The termites plant the fungi and defecate on it to feed it. Termite eggs are harvested and eaten as a source of protein by local people. An odd fact mentioned was that it is not unknown for the deceased, particularly those who were deformed, to be buried in the side of termite mounds. During the early gold rush, Rhodesian miner Bill West discovered gold in termite mounds when collecting water from a termitarium. From then he sampled termitaria to establish the composition of geological layers underground, thus foregoing the need dig sample holes.

We proceeded to a rainmaking site. Many walked through the surlveld of the 'Hidden Valley' while others drove to a point from where we descended along a cliff on a path that had been a pioneer route through the Waterberg. En route we visited a small rock art site featuring two stick figures. The rainmaking site is particularly impressive, situated in a deep crevice halfway up a high cliff. At the end of the crevice, ahead of a narrow cave, we found an 'altar' consisting of several stones. The site is thought to have been used by both hunter-gatherers and by IA peoples. When displaced by the pastoralists, Bushmen shamans continued to act as their rainmakers. Eland pottery, some of it 1 000 years old, was found at the site. The pots were first fired and then engraved, a herringbone design being common. Later pots were decorated before firing. A ridge on one side of the incising is visible with the latter method of decoration. In the main, the pots were made by women using the coil method.

Richard Wadley then gave us greater detail about the geological history of the Waterberg, which was had been formed some 1,8 billion years ago by the collision of the Congo and Kaapvaal-Zimbabwe Cratons. From our viewpoint high in the Waterberg we were able to see the flat-topped hills of the area. This unusual formation was the result of many rivers eroding the valleys, which left the hard crust, known as the African Surface, a leftover from the original Gondwanaland. Rivers largely flowed towards the southwest, occasionally forming small lakes. A feature of the Waterberg is red sandstone containing conglomerate layers. The so-called Red Beds were formed when oxygen in the atmosphere combined with iron in the sandstone to form iron oxide. Prior to this the oxygen produced by the stromatolytes was absorbed by the iron and manganese in the oceans.

After a stop at the lookout point, the highest point in the area, from where Hangklip and Entabeni could be seen in the distance, we returned to Bush Camp for a picnic lunch. Most participants stayed over until Monday morning to enjoy the bush atmosphere, the game and the birds.

Report by Noni Vardy



Lyn Wadley talking about 1 000-year-old Eland pottery at a San rainmaking site in a deep crevice (photo Reinoud Boers)

