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ARTEFACTS

Reports covering the period February to November 2018

EVENING LECTURES

SKBR: A Precolonial Tswana Town in the Suikerbosrand

(15 February 2018)

Professor Karim Sadr

SKBR was a large Tswana capital that flourished along the western foothills of the Suikerbosrand massif from about the 1500s. The massif forms a watershed between the Klip River and the Suikerbosrand River south of Johannesburg, and contains the highest peak in Gauteng Province.

Pre-colonial Tswana towns were dense agglomerations of homesteads covering several square kilometres. Dry-laid stone-walled structures demarcate livestock enclosures, courtyards and the perimeters of homesteads. They also mark the course of roadways that led livestock into enclosures, winding between gardens and infields, agricultural terraces and stone towers.

It is only from LiDAR imagery commissioned by Karim Sadr that the scale and architectural complexity of the SKBR settlement has become evident. It contains numerous stone-walled homesteads, with a central cattle enclosure, smaller courtyards, and a perimeter wall.

The oldest style of stone-walled structure in this area, called Type N, is widely dispersed across the massif. These structures have few central enclosures, and the perimeter wall is smoothly curvilinear, with only one entrance to the homestead. Radiocarbon dates indicate that Type N style was common in the fifteenth and sixteenth centuries.

The Type N style in this area was gradually replaced by the Klipriviersberg style. This type of homestead has a perimeter wall slightly scalloped along relatively smooth curvilinear sections. The interior is subdivided into segments by shorter or longer stretches of walling perpendicular to the perimeter. These demarcate the spaces of individual households in homesteads that date from the seventeenth century to the first half of the eighteenth.

The Molokwane or classic-phase homesteads have a deeply scalloped perimeter wall. Each scallop demarcated the back yard of an individual house, dated probably to six or seven decades around AD 1800. The population abandoned the uplands and congregated in dense clusters of homesteads in the western foothills of the massif, overlooking the highly fertile alluvial floodplain of the Klip River.

The Class 7 style, which possibly represents an occupation during the upheavals of the 1820s and 1830s, has a ‘post-classic’ style of architecture. The scallops in the perimeter wall were separated, and individual crescent-shaped backyard walls were distributed more or less haphazardly around the central enclosures.

Large ash heaps, probably men’s court middens, visible on LiDAR imagery as mounds, were visible to the public. All visitors to the homestead would have to climb the ash heap, the height of which would say much about the status of the residents.

The largest ash heaps are found in and around the southern clusters of homesteads. No other pre-colonial Tswana towns have ash heaps as large or as numerous as those at Suikerbosrand.

Exceptionally long cattle drives, made with parallel alignments of boulders, are found in the south-western part of the Suikerbosrand massif. They total just under 8 km in length. Terraces or lynchettes associated with wealthy and powerful families formed part of the royal fields. They can only be detected on LiDAR imagery thanks to slight undulations in the slope.

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Unusual stone towers are carefully constructed, with an exterior face of large dry-laid boulders. On the inside they are packed with smaller cobbles. Undamaged examples form slightly tapered cylinders with flat tops. In a 100-hectare focus area, heights range from 1.8 m to 2.5 m. Average basal diameter is about 5.5 m. A study of Molokwane and Class 7 architecture styles shows 52 towers distributed in nine homesteads, the largest homestead containing 10 towers and the smallest containing only one.

The ruins at the SKBR site were never documented in writing by European travelers and missionaries in the 19th century, and its oral history was unrecorded. In the early 1820s all the Tswana towns in the area north of the Vaal River collapsed during the conquests of Mzilikazi Khumalo, first ruler of what became known as the Ndebele kingdom.

Report by Hilary Geber

Africa Calling: a Cultural History of the Hermannsburg Mission and Its Descendants in South Africa

(15 March 2018)

Dr Udo Küsel

Hermannsburg is a mission station in the Natal Midlands, 23 km from Greytown. It is named after Hermannsburg in Germany which was the headquarters of the Hermannsburg Mission Society. This was founded by Lutheran pastor Ludwig ‘Louis’ Harms in 1849. He trained missionaries and had a ship built to take them all over the world.

The first journey of the Kandeze carrying 16 brethren took place to Ethiopia in 1854. They stopped in Cape Town for cargo to be taken to Durban. During their stop-off in Natal they met a group of Germans at New Germany. When they got to Mombasa the Imam refused them permission to pass through his territory. Another missionary, Johannes Rebmann, suggested that the party return to Natal to work among isiZulu-speaking people.

The brethren did this, and settled in New Germany. Here they met a Mr. Berends, a German from Hamburg who was in the service of the colonial administration. He sold them his farm 'Perseverance' of 6018 acres for £630. Here they established Hermannsburg, or Neu-Hermannsburg as they called it initially.

In November 1854 they started farming and building the kitchen and the smithy. The construction of the 'big house' was started and completed in September 1855. It had 25 rooms and a provisional church. This is now the museum. The rafters, beams and boards were cut from local trees. The missionaries made sun-dried mud bricks and cut grass for the roof with sickles.

In 1860 a small church was built, and in 1868 the foundation stone for a big sandstone church was laid by Heinrich Karl Hohls, the Superintendent of the Mission in South Africa from 1864 to 1883. The neo-Gothic style is typical of churches in north-western Germany, with a striking tower. Both churches held services in isiZulu and in German. In 1925 a separate Zulu church was built. There are two cemeteries. The newer one is next to the church and down the hill is the Alte Friedhof. Sarah Maria Kumalo, who died of dropsy in February 1856, was the first to be buried in the old cemetery.

The missionaries were later invited by the Transvaal Republic to work among local Tswana-speaking groups. They helped many of these groups to buy land.

Report by Hilary Geber

Exploring the Gestoptefontein-Driekuil Complex

(5 April 2018)

Jeremy Hollmann

Gestoptefontein (‘blocked-up spring’) is the name of a farm in the grasslands in North-West Province some two-and-a-half hours’ drive west of Johannesburg. It is the site of a number of outcrops of ‘wonderstone’, a soft rock like soapstone, which yields a fine powder. Markings on rocks at the site resemble engravings, and suggest that the locality was visited frequently for ritual purposes in the era before colonial settlement.

Today the land round about is used mainly for maize and cattle farming. Unfortunately for archaeologists, wonderstone is valued in modern industry.

Mining at the site has taken place for many years. Powder from the wonderstone is used today for making crucibles for manufacturing industrial diamonds. There is a small but constant export trade to Japan and the United States. Most of the engravings have been destroyed.

A German engineer named Hubner described the site as early as 1871. When Maria Wilman visited it in the 1930s, she described its archaeological value as ‘exceptional’, but no early records of the engravings exist. Jeremy Hollmann carried out a research project on the remaining engravings from 2006 to 2009. He found that the main motifs were of animals and people, body decoration, clothing, and ornaments.

Historically, the region has been associated with !Ora (or ‘Korana’) pastoralists. Hollmann suggests that the making of the engravings was part of women’s rituals, particularly the ‘coming out’ or ‘initiation’ of girls. The designs, he argues, have ritual power; making them was a celebration of women’s power. Women also used the powder obtained from the wonderstone to mark their bodies. In doing this, they were possibly likening themselves to the water snake which was linked to the outcrops and thus linking themselves to rain and fertility. The site was possibly used for other rituals as well.

Archaeologists today are keeping a watchful eye on the remaining engravings. They have little support from the South African Heritage Resources Agency, which is seen by business and industry as part of a junior government agency. The Department of Minerals and Energy, which permits mining activities at the Gestoptefontein site, is seen as a senior department that carries much more political clout. ***Report by John Wright***

Origins of the Ivory Trade in Southern Africa

(17 May 2018)

Professor Judith Sealy

Judy Sealy began her lecture by pointing to the contemporary trade in poached ivory and the likelihood that some of the proceeds of this illicit activity go to funding terrorist organisations. She went on to show us photographs of 19th- and 20th-century elephant tusks and their uses. One illustration was of a specimen so large it required four porters to carry it. Such tusks were exported to Europe, the Middle East and the Far East to make piano keys, ornaments, bangles, beads, fans and Chinese signature stamps. These activities mark the tail-end of a trade that goes back hundreds of years.

Professor Sealy's research team has found that material excavated from various archaeological sites suggests that ivory was being traded from southern Africa into Indian Ocean trade routes as far back as the 7th century. It has been well established that Mapungubwe, at the confluence of the Shashi and Limpopo rivers, enjoyed close trade links with the modern day Mozambican coast in the 12th and 13th centuries, but recently discovered evidence indicates that trade from the KwaZulu-Natal region dates back even earlier.

At KwaGandaganda in the Mngeni valley not far from Durban, broken bangles and 3.5kg of small ivory chippings were found, along with datable material which suggests that items made of ivory were produced at this site in the 7th century. Ivory from three different species of animal has been identified there – elephant, hippopotamus and warthog. Larger pieces can be identified by means of a microscope, but if all you have to work with are small chips and parings the technique of zoo-archaeology by mass spectrometry (ZooMS) has to be employed.

Another technique used compares the ratio of the isotopes of Carbon 12 and 13 and Nitrogen 14 and 15. This reflects the diet of any given elephant and thus its location by habitat type – whether savannah grassland, lush forest, or wooded river valleys.

In the KZN sites under investigation, all yielded elephant ivory in the form of chips or broken bangles or amulets. Yet contemporary KZN human burial sites have not so far yielded skeletons wearing ivory bangles. Does this mean that intensive manufacture of ivory ornaments was taking place with at least some of the premium products intended for the export trade?

Copper items were also used as trade goods for export, but what of imports? The earliest imported glass beads in southern Africa date back to the 7th

century AD. A glazed ceramic shard from Basra in the Persian Gulf dated to AD 800 has also been found. How extensive was this trade and how reciprocal was it within the Indian Ocean basin?

As so often in archaeology, we are trying to find the 'bigger picture' of a 1000-piece jigsaw puzzle with only 15 of the pieces on the table.

Report by W.J. Murray

A Feast From Nature – A book by Renata Coetzee

(19 July 2018)

Truida Prekel and Prof Himla Soodyall

Truida Prekel and Prof Himla Soodyall gave presentations on Renata Coetzee's book, *A Feast from Nature*. Renata started her career as a home economics teacher. She spent many years researching the food cultures of South African communities and published a number of informative books on traditional cooking. *A Feast from Nature* is a more academic endeavour, with potential appeal to agriculturalists, anthropologists, and archaeologists. Himla Soodyall contributed to the book by checking the science.

The book explores the indigenous diets of Khoi-San people, as it was Renata's desire to explore the parameters of a natural diet based on indigenous food. Himla explained that the genetic structures of *Homo sapiens* originated in Africa. By investigating the diets of Khoi-San people, whose ancestors emerged millennia ago in Africa, a healthier diet may result, if not for all of us, at least for those of us who have a large proportion of the genes of our African ancestors.

Renata explored the desert regions of South Africa and asked the elderly inhabitants that she found about the plants they used for cooking and in medicine. She recorded names of the plants, and their growing conditions, and researched their propagation, preservation and cooking. Renata was in her 70s when she did this research and without her work much of this indigenous knowledge would have been lost.

At Solms Delta estate in the Western Cape, Renata established a wild food garden. She commissioned the CSIR to investigate the nutritional content of some of the plants she grew. Examples of such plants include the aloe flower that some Khoi-San people use as a type of rice, arum lily bulbs, wild almonds (both of which need pre-treatment before they can be eaten), and the morama bean. The CSIR established that many of these plants were surprisingly nutritious.

Renata identified 128 indigenous plants that were used for food or medicine, and these are discussed in the book. Studies are now being undertaken at universities to establish whether these plants could be farmed commercially in marginal areas and whether genetic engineering could be used to enhance the yield or nutritional value of these plants. Renata's long-term contribution to nutrition may well be in establishing new food crops and medicines. This is turn may lead to poverty alleviation of communities based on marginal land.

Report by Louise Mackechnie

Bone Tools

(2 August 2018)

Dr Justin Bradfield

Justin began his lecture by emphasizing that although morphology is used to identify stone and bone tools from the remote past, tools of the same size and shape may have been used for different purposes. While still an undergraduate student, Justin questioned whether handaxes were really used to butcher meat, as he felt that the sharp edges all the way round these tools would probably have butchered the user as well. He wondered whether these tools and many others might have been incorrectly identified.

As a result he became keen use a new approach called 'use-trace analysis' to investigate how artefacts might have been manufactured and used. Justin explained that there are four ways that bone tools can develop use-traces, namely, through abrasion, fatigue, adhesion and chemical changes. These traces are the products of manufacture, use, and environmental factors. For example, a tool used to butcher meat would develop tell-tale traces as a result of prolonged use.

Although there are bone tools from other parts of Africa that date from 350,000 to 130,000 years ago, in South Africa the earliest bone tools so far found date to 77,000 years ago at Blombos cave on the southern Cape coast, and also at Sibudu in KwaZulu-Natal. At Blombos these tools were probably being used for making clothing, as they are perforating instruments.

An example of a highly polished bone tool is seen as evidence in support of the notion that people of the South African Middle Stone Age were able to express symbolic thought. Further evidence is found in the form of etched ochre from the same period. The bone tools found at Sibudu are arrow and spear heads. Bone arrows dating from 45,000 years ago have also been found in Botswana at the White Painting Rock Shelter. There is some evidence that poison was used on these arrow heads; however, this is in dispute. Although the evidence seems to suggest that the technology of tool-making may have spread from one area to another, Justin emphasized that technologies like manufacturing arrow heads could have developed simultaneously in different places.

The Later Stone Age in southern Africa exhibits a far wider range of bone tools. Archaeologists are not always certain about the precise uses to which they were put. Some may even have been used for decoration. Iron Age sites also yield bone tools with a wide range of potential uses. For example, bone hoes could only have been used for light digging, which implies that they were used for gardening rather than for field agriculture. Although Iron Age people had access to iron, they nonetheless also made arrow heads of bone. They may have been used for trading to hunter-gatherers. Social taboos may also have informed the choice of arrow used to hunt certain animals.

Making bone tools took longer than making stone tools. Certain embellishments on the tools were unique to specific regions. An example is seen in regional variation in the number of barbs on harpoons found in West Africa.

Report by Louise Mackechnie

Anatomy of a Mass Extinction

(13 September 2018)

Professor Roger Smith

Professor Smith explained that his research focuses on how mass extinctions occurred, how most existing life was killed, and how the survivors survived. The Permian mass extinction was the largest of the five mass extinctions that have occurred on our planet. It occurred about 250 million years ago when the world was made up of a single supercontinent known as Gondwana. At the time about 96% of all life went extinct.

Mass extinction events are defined to be those events where 40% or more of all species, both plant and animal, disappear in a relatively short period of time in geological years, namely from 10,000 to 500,000 years. The events are triggered by non-biological forces, are unpredictable and occur so rapidly that they hit all species simultaneously and the evolutionary clock is reset. Such events are known as non-Darwinian events and they allow new species to exploit the new conditions.

The main cause of the Permian mass extinctions were prolonged and massive volcanic eruptions that released carbon dioxide and methane into the atmosphere, causing global warming that occurred too quickly for existing life to adapt. The eruptions took place over a period of about 170,000 years. Some 65,000 billion tonnes of carbon dioxide was released, and about 5 million cubic kilometers of lava was also ejected. The knock-on effect of the global warming was the drying of the atmosphere and changes in weather patterns. Since the world was made up of a single continent, the central regions of this continent were particularly susceptible to climate change and drought. It is estimated that the average temperature increased by about 6ºC over a 10,000 year period.

Evidence for the mass extinction can be found in the fossil record, as different species are found at different levels. Evidence for climate change comes from the colour of the rocks and other geological features such as dust-filled cracks in dried mud and the narrowing of the river beds. Rivers changed from shallow meandering rivers in a permanently moist environment to ephemeral

rivers that flowed annually or less frequently. Fossils bear out the story of the great Gondwanan drought, as accumulations of fossil remains can be found around flood plains. These bodies were not scavenged. Some fossils have mummified skin, so animals probably died around dried-up water holes. The next monsoonal-type rains washed them to the edges of river channels where they were covered in sand and fossilised.

Professor Smith explained that before the extinction the Karoo region was populated with a mammal-like reptile that belonged to the group known as synapsids, described by some as dog-like reptiles. For 60 million years the synapsids were the dominant land vertebrate species on the earth. In this region of the Karoo they occupied the same ecological niches as their successors, the dinosaurs.

Although mass extinctions are devastating for the majority of species, certain species do survive and over time new species evolve. In this instance the species that survived probably managed to do so because of their ability to burrow and thereby retain their body heat. After the eruptions, clouds blocked the sun's rays and the earth's temperatures decreased. Professor Smith explained that there is no fossil evidence of creatures that transitioned between Permian and Triassic period but he is optimistic that he will find the "missing link" in one of the many burrows that he is currently excavating.

The Permian extinction occurred when Antarctica was joined to the Karoo. Professor Smith has been fortunate enough to be able to extend his fossil hunting to this frontier on three different occasions, the latest being at the beginning of 2018. He gave interesting insights into the difficulties of fossil hunting under these extreme conditions, and confirmed that the same species of synapsids occur in the same bands of rock.

Report by Louise Mackechnie

Forgotten Trails across the Midlands of KwaZulu-Natal

(4 October 2019)

Dr Annalie Kleinloog

Dr Kleinloog explained that her research started when she decided to investigate the history of Nottingham Road in the KwaZulu-Natal midlands, the area where she lives. A visit to the library at Michaelhouse School put a damper on her ambitions when she found that the history of the area was already well documented.

She became interested about the possible origins of several ridges alongside a field on her farm. An explanation given by her farm manager set her on a new course of investigation. He told her that the ridges were the remnants of the old Johannesburg road that had been used in previous years by ox wagons. When he was young, his induna had told him that his great-grandfather used to while away the hours counting the ox wagons as they drove past. Annalie decided that more investigation was necessary to establish whether these ridges were actually part of the old ox wagon trails and not silages pits or natural landmarks caused by flooding, erosion or other factors.

Initially Annalie tried to follow the ridges across the region, but found that they disappeared into forested areas or were covered over by newer roads. Where she had expected to find one road, she found several parallel and intermeshed tracks that wound their way over the landscape. She used several different sources to investigate the origins of the ridges. She examined diaries kept by local ox wagon drivers (known as transport riders) in earlier times, but found that they yielded little information about the area under study. Other sources included old maps, aerial photos from several sources, including photos taken during World War II by homing pigeons fitted with miniature cameras, survey maps, and Google Earth images. Although newer technologies like Lidar are available and yield spectacular results, they were beyond the scope of her study. Annalie's aim was to use the tools at hand to confirm her suspicions that the ridges were indeed formed by the passage of ox wagons.

Annalie's research revealed that starting with the modern idea of a road as a single pathway was unhelpful. Transport riders travelled in groups, so several tracks were made alongside one another. Rain may have turned well-worn paths into mud, so forcing transport riders to forge parallel paths. The goods they carried were often staples for the Transvaal province and timber for the mining industry. The wagons were robust and large, and could take loads of between 6 and 8 tonnes, pulled by a span of between 12 and 18 oxen. The transport riders remained in business until the 1890s, when a rinderpest epidemic killed many of the oxen. At the same time, railway transport was coming to the fore.

Annalie established three means of identifying ox wagon trails. First, she found that blue gum trees had been planted on the routes. These trees grow quickly; the served both as beacons for the route and as indicators of the presence of water. Secondly, large rocks had been cleared from the routes and sometimes engraved with figures denoting distances to nearby towns or with the names and dates of transport riders. Unfortunately none of these rocks have been preserved in museums. They are fast being removed as new roads are built and fields are tilled. Thirdly, the dimensions of the tracks are significant sources of evidence. Wagons came in specific sizes so this meant that the grooves made by the wheels were a specific distance apart.

Annalie has been able to apply these criteria to tracks outside her study area. She has confirmed the existence of wagon routes at several places, including one at Van Reenen's Pass on the route from Natal to the Transvaal.

Report by Louise Mackechnie

Getting over Dating Problems: Establishing a Chronology of Southern African Rock Art

(15 November 2018)

Dr David Pearce

The rock art of southern Africa is now well understood thanks to detailed evidence on the ethnography of nineteenth-century /Xam people available in the Bleek and Lloyd Collection and of twentieth-century hunter-gatherers in the Kalahari. In very broad terms, the art relates to the religious and social practices of hunter-gatherers in the past. But, as is well known, it is very difficult to date. Direct dating methods have so far not been very successful.

The major technique used so far in trying to date the paintings is the radiocarbon dating method. Recently a team to which Dr Pearce belongs has begun to use accelerator mass spectrometry (AMS) dating, with very promising results.

The team's research began in a painted shelter in the Maclear area in the Drakensberg Mountains of the Eastern Cape. Paintings in the site were copied by Walter Battiss in the 1950s, and photographed by Neil Lee and Bert Woodhouse in 1967. In the short space of time since then, the paintings have badly deteriorated. In 2008-9, David Pearce collected some 200 stone flakes with traces of paint on them from the floor of the shelter. Most of them were extremely fragile. He took 30 flakes with red and black paint on them to be dated by the AMS method in the Research Laboratory for Archaeology and the History of Art in the University of Oxford in the UK.
The received wisdom has been that black paint as used in the rock art in southern Africa was based on manganese. But it turned out that the black paint on the flakes collected by Dr Pearce was based on carbon. It was not from burnt wood, as has commonly been thought, but from a source still to be established – possibly from fats or resins.

Three flakes from the shelter were dated to the period 2120 to 1880 BP. The team then turned its attention to the question of how to date paintings on the walls of shelters, as distinct from flakes that had fallen to the floor. Its members worked at three sites – near Maclear, at Thune Dam in Botswana, and at Metolong Dam in Lesotho. To minimize damage to the paintings, they took initial samples half a millimetre by half a millimetre in size.

From these three areas, 43 new dates were obtained. In Botswana, they go back to about 5500 BP. In the Drakensberg, they fell into a timeframe from 3000 BP to about 1500 BP. Six of the dates came from the site originally investigated near Maclear. The nine dates from this site fall into three phases: 2800-2100 BP for paintings from the left-hand end of the shelter, 2400-1800 BP for paintings from the centre, and 2000-1500 BP for paintings from the right.

The team is now puzzling over a number of questions raised by these datings. Why is there variation in the dates across the site? Why did people keep coming back to the site to paint? Why were some of the figures done in black paint very similar to figures painted nearly 1000 year earlier?

In addition to producing new evidence on the dating of the paintings, the team made analyses of the pigments used. Their work has led to a better understanding of what goes on on the surfaces of the rock when paint is applied to them. Attention is shifting away from investigating the art as ethnography towards investigating the complex chemistry involved in the life of the paintings.

Report by John Wright

EXCURSIONS AND OUTINGS

Outing to Cullinan Diamond Mine

(25 February 2018)

At the start of the tour we were shown a video about the discovery of diamonds in the area and the development of the Cullinan mine. Then, donning blue 'hard hats', we set off behind William, our most able guide. As we entered the security enclosure we passed the Presbyterian Church, now interdenominational, built in 1908. The corner stone was laid by Thomas Cullinan.

In a simulated tunnel, William explained that water and electrical installations are colour-coded to overcome problems of semi-literacy. We were able to get a feel of what it would be like underground, where the temperature is about 5 degrees cooler than on the surface. William explained to us that the use of dynamite in mining has been replaced by another process which is less dangerous and much quieter.

Our next stop was at Shaft One where we were able to enter and photograph a cage. It holds 80 people and takes nine minutes to descend. The descent is at four and half metres per second and goes down to a level of 700 metres. The miners work in three eight-hour shifts and the mine is open twenty-four hours a day all the year round

Our next stop was at the hoist room. The machinery, made by Vickers Manchester, dated to 1955. From time to time the winding rope or cable stretches and has to be shortened. This type of cabling is also used for game fencing and rhino enclosures.

Next we went to the historical display room which exhibits posters of mining operations. Also of interest were posters which showed the volcanic movements and changes in the earth's crust that led to the formation of diamonds. William showed us the different types of rock and the different sorts of diamond that they yield. Diamonds cling onto blue rock or kimberlite and can only be cut by other diamonds unless they have a particular cleavage. In this case they can be separated by a sharp blow.

The blue-white diamond is the most expensive .The Cullinan diamond was found in 1905 at a depth of nine metres and weighted 3106 carats. It was bought by the Transvaal Government for 3106 pounds and presented to the British king, Edward the Seventh. It was cut and polished by Asscher of Amsterdam who received some of the lessor stones as payment.

The Star of Africa is in the Royal Sceptre and the Lesser Star of Africa is in the Imperial State Crown. Another famous stone is the Hope diamond which is believed to have brought bad luck to whoever owned it. It is now in a museum in Washington DC.

Archaeology Society member Graham Reeks explained how industrial diamonds are made and how they are used in industry as well as in space projects. At the Diamond and Jewellery shop we were able to gaze at the most beautiful jewellery. In the courtyard outside here is a statue to Thomas Cullinan.

The Big Hole at Cullinan has been formed by mining into a pipe believed to have formed one and half billion years ago. The hole is now a kilometre by half a kilometer in size. On the other side of the hole is the grey slag heap. In

time it will be re-worked and emeralds and rubies and lesser diamonds will be retrieved.

Cullinan is an attractive Victorian mining village, with many well-preserved buildings of historic interest. The old recreation centre has a display of paintings done by Italian prisoners of war who lived at Zonderwater nearby.

Report by Gerry Gallow

A Walking Tour of Central Pretoria

(27 May 2018)

With Trevor Evans

We gathered in the forecourt of the State Theatre, where our guide, Trevor Evans, a Pretoria architect, gave us a stimulating talk on the development of the buildings which lined what could loosely be described as a square. These buildings have much to tell us about the political climate at the times when they were erected.

Trevor began with the imposing structure of the State Theatre. He described the building style as 'Brutalist'. From the brochure which Trevor gave us, we could see the building's similarity to the National Theatre in London. The South African government of the time was eager to show that it could put up buildings as impressive as one in London.

With our backs to the State Theatre, we looked to our right at the Reserve Bank, a towering 'matchbox' of black glass which was designed to indicate transparency and a sharing of the economy. This 38-storey skyscraper was built by the apartheid government in 1986 as a gesture of defiance as it became more isolated against the world.

Directly opposite the theatre is the Gundelfingers Building which also borders on Sammy Marks Square. Paul Kruger, President of the South African Republic from 1883 to 1900, liked Dutch influences in architecture, and so this building, erected in 1890 of red bricks with turrets and gables, was vaguely related to the Flemish Arts and Crafts style.

Adjoining this building is the Sammy Marks Square where the style, still in red brick, is decidedly more Venetian in its design, and is complete with a tower built to enhance the Venetian flavor. Back at the State Theatre, we saw the Volkskas building, also a political statement but built in a post-modern style.

Moving away from the square, we came to the recently constructed Women's Living Heritage Monument. This building, unveiled by President Zuma in 2016, is a conference centre used for training and leadership courses. It is set back from the street and on one wall has a sort of Adobe style, with four large panels with a woman's head in each. On the other side of the road is the OK Building in the Art Deco style.

From Lillian Ngoyi Street, formerly Church Street, we turned down another small walking mall towards an unimpressive wrought-iron entrance. However, when we entered, we found a large and impressive mosque tucked away between the large buildings of the city. The Queen Street Mosque was built in 1927. Suitably 'scarfed' and with washed feet, we were able to enter the mosque, which can house about 200 hundred people. The floor is covered by a carpet in muted autumn colours, while the beautiful stained glass windows depict flowers as well as the crescent moon and stars. The building also has attractive pressed ceilings.

At the corner of Lilian Ngoyi Street and Church Square is the Tudor Chambers building. Built in 1893 for Jesse Heys by John Ellis, it is in the late Victorian Tudor Gothic Arts and Craft tradition, with some Art Nouveau inside. The lift is the oldest in Pretoria. The building once provided chambers for the legal fraternity; sadly, it is now unoccupied and rather neglected. Opposite it is the Old Netherlands Bank, built in 1897 by Willem de Zwaan in the style of Flemish Arts and Crafts and Art Nouveau. Church Square itself was disappointing. Undergoing a general renovation, it was really just a building site with the statue of 'Oom Paul' Kruger safely encased in barricades against the vandals of all sides of the political spectrum.

Unfortunately, the Café Riche, which is the kernel of the square, was closed for the weekend. Built in 1908, it was designed by Frans Soff. Its features include relief sculpture by Anton van Wouw. Next to the Café Riche is the

Old Netherlands Bank built by Willemse Zwaan in 1897 in the Flemish Arts and Crafts style with elements of Art Nouveau.

Next to the bank once stood the Capital Theatre, built in the style of the Colosseum in Johannesburg with a 'starry sky'. Now it is just a car park. Across the road stands the imposing Old Raadsaal, designed by Sytze Wierda in 1887, and commissioned by President Kruger as the governmental quarters for the South African Republic.

Going round the square from the Raadsaal we saw the Standard Bank which was built in neo-classical style and had magnificent golden doors. Further on was the Palace of Justice designed by Sytze Wierda in 1896 and completed after the South African War in neo-classical style with towers, domes and parapets and facebrick against sandstone. Moving round, we came the Post Office building, built in 1910, when post offices were extremely important buildings. The Old Reserve bank , designed by Gordon Leith in neo-classical style, is similar to the Union Buildings and contrasts heavily with the new Reserve Bank building.

We picnicked in the garden of Melrose House, which was built in 1886 for George Jesse Heys, a Pretoria businessman, as his family home. Its style is Victorian Colonial, and the interior houses furniture and appointments of the era. The house was requisitioned by Lord Roberts as the Headquarters of the British from 1899 and the Treaty of Vereeniging was signed there in 1902.

Report by Gerry Gallow

Outing to Historic Heidelberg

(9 September 2018)

With Bouwe Wiersma

European settlement at Heidelberg began when H.L. Ueckermann, who came from Germany in 1862, built a trading station at the junction of the route from the Transvaal to Natal and to the Orange Free State. He bought a portion of the farm Langlaagte and founded the village that became known as Heidelberg, after his German roots.

We were met at the old station by our enthusiastic guide, Bouwe Wiersma, an attorney who is determined to put the old town on the heritage map. He told us that during the first Boer War (1880-1881) Heidelberg had been the seat of the Transvaal provisional government. The old station, now beautifully restored, was where Smuts met Ghandi, and where Churchill spent a night en route to Pretoria for trial. Outside we explored – some of us nostalgically – an old train. Behind the train stood an old railway shed which Anton Rupert had used for many years as a transport museum. The museum is now in Franschhoek.

We drove past the Methodist Church where a beautiful stained glass window was imported to commemorate the Diamond Jubilee of Queen Victoria in 1897. Opposite the church stands the Standard Bank building, built in 1880, where Paul Kruger was believed to have stayed at one time. A little further down the road we stopped at a long stone tunnel built by the Boers to hide a spring - which still runs - from the British. Near this park was what was called 'The Guest House', with rooms featuring displays on historical figures like Kruger, Malan and Verwoerd. Another room features displays on recent visitors such as Nelson Mandela.

We drove past a Victorian guesthouse full of British memorabilia, and then to the Klipkerk, or stone church. It was a most impressive church built entirely of the golden stone of the area. We were told that Dr Malan had started school in the basement. Contrasting with the stately Klipkerk is the Anglican Church, built in 1882, which has stained glass windows dating from Queen Victoria's Jubilee. At the entrance are two oak trees planted to celebrate the coronation of King George and Queen Elizabeth.

We drove past the home of the poet A.G. Visser and his hospital: a little known fact is that he was a medical doctor. From here we journeyed to the Ou Tronk built in 1869 of the same attractive golden stone. It housed political prisoners and others. It is was here that a Boer soldier, Visser, was shot by firing squad for shooting a British officer after peace was declared in 1902. We drove past the Army Gymnasium, which was originally built as a teacher training college. The artist Pierneef lectured there at one time. Today the Gymnasium is used to train army officers and women soldiers.

At the end of the tour we returned to the station where a local farmer and history-cum-archaeology enthusiast, Ludwig Ankiewicz, gave us an informed talk on the region's history. ***Report by Gerry Gallow***

ANNUAL SYMPOSIUM 2018

Vanished Civilizations

25 August 2018

Why were people so foolish as to settle in villages and towns?

Professor David Lewis-Williams

Professor Lewis-Williams began by asking what causes major social and economic change? Do changes come from outside society through economic and environmental pressures, or from other societies? Or do changes come from within society, from factors such as the circulation of clever ideas?

He asked whether there is any archaeological evidence from south-west Asia that religious changes could have preceded economic changes, and whether they could in some way have contributed to economic change. He examined evidence from the sites of Göbekli Tepe, 9600 BCE, and Çatalhöyük, 7200 BCE, both in Turkey, to see what they could reveal.

Klaus Schmidt and Turkish archaeologists excavated both sites. At Göbekli Tepe, which is a mound on a limestone plateau, they found various 'crypts'. One was a square crypt with a seat between two pillars with steps, a short pillar and cupules. Another was a round 'crypt' with a stone doorway, cupules, a bench and a stone basin. Both 'crypts' were surrounded by built walls and in-fill. One pillar was decorated with chevrons, snakes and insects. Another pillar was decorated with birds, nets, a boar and a fox. The net pattern was formed by intertwined snakes. There is also a lion pillar and one with an aurochs head.

The T-shaped pillars at Göbekli Tepe may be anthropomorphic as they show a head, arm, and fingers. The pillars come from a limestone quarry, are 6 m long, and weigh about 50 tons. Do these stone 'beings', with their carved animals, divide benches and tower over rituals? Could these 'beings' have created social distinctions or created a link between upper and lower realms for this hunting and gathering group of people?
Çatalhöyük, built 2400 years later, is about 690 km away from Göbekli Tepe. It was a farming and settled town with a sedentary community of 3000-8000 people. In the houses there are porthole doorways between rooms. The rooms are decorated with vultures and with aurochs' or bulls' heads. There are burials under platforms and images of a Mother Goddess. The wall painting may depict a town or a volcano.

How, then, did religion lead to domestication and social change? People came together seasonally for religious reasons, and religious leaders commanded labour. Religion and social distinctions and politics resulted. Later people harvested wild grain. Subsequently, fallen grain was repeatedly harvested and so was domesticated, and villages were formed.

There is evidence from DNA studies showing that the origin of domesticated einkorn wheat was at Karacadag in the mountainous area around Çatalhöyük. Middle East villages are thought to be a byproduct of religious practices like those of the hunter gatherers at Göbekli Tepe. So the emergence of the practice of living in villages could have been a fatal accident.

Report by Hilary Geber

Symbolism from the landscape of Ancient Egypt

Professor Lyn Wadley

Prof Wadley explained that ancient Egypt was composed of two distinct parts. The Upper Nile included the delta, and was known as the land of the living. The Lower Nile included the desert, and was known as the land of the dead. These regions were united by King Na'rmer in about 3500 BC. At this

stage, gods from the Lower Nile, like Serpapod, with a serpent's head and a camel's body, began to be incorporated in images throughout Egypt.

Life in Egypt was seen as an uninterrupted cycle of light and darkness as day turned to night, and night to day. The sun was seldom obscured by clouds, and as a result it came to represent resurrection and eternity. The god of the sky (Nut) is symbolized in images as a woman stretching over the sky. The god of the earth (Geb) is shown as a woman lying prostrate on the ground. The earliest pyramids, which date from the 4th dynasty, were built in steps which assisted the deceased pharaohs in their upward journey to the heavens. The shape of the pyramids imitated the rays of the sun, and later pyramids were covered in plaster to reflect the sun's rays.

Since gold was an analogy for the sun and symbolised eternity and eternal youth, pharaohs were buried in gold coffins. Tut'ankhamun, a lesser known king, was buried in a coffin made from 110 kilograms of gold, and his ornate headdress was made from 10 kilograms of gold. The gold came from the Nubian Desert.

The gods in ancient Egypt were derived from the creatures that inhabited the landscape. The depiction of these gods in images and statues morphed over time from representations that involved the entire animal to symbolic representations of iconic aspects of the animal. For example, Hathor, the goddess of love and beauty, was based on a horned cow and is later symbolized by horns only.

Dung or scarab beetles play a significant role in Egyptian mythology, as the sun was thought to have been propelled across the sky by a dung beetle. These beetles were thought to play an important role in the regeneration of the sun. The sky, like the sun, symbolized eternal life, so the colour of the sky was evocative of eternal life. The gemstone turquoise was imbued with special meaning and held pride of place in many amulets. When Tut'ankhamun's mummy was unwrapped, a total of 143 amulets were found in the linen covering the body.

The images of many gods were based on features of birds. For example, Horus was based on the falcon, and was symbolized as an eye, Thoth was based on the ibis, and Nekhbet was based on the vulture. Other gods were based on creatures that roamed the earth, like the cobra whose task was to protect the tombs of the pharaohs, the crocodile god (Sobek) who was the god of disorder, the hippo or lion god (Tawaret) who was the protector of pregnant women, and the jackal god (Anubis) who was the god of mummification.

Other symbols in ancient Egypt images were based on useful man-made articles like the sandal that represented good luck. In ancient Egypt when wealthy men went on a journey they were followed by a foot washer who dispensed clean sandals along the route.

Many rituals and symbols were involved in the mummification process. For example, when a pharaoh was mummified, the heart was removed and placed in a container. In the afterlife this container was weighed against a feather which represented the goddess of truth, Ma'at. If a pharaoh had done many good deeds then his heart would weigh less than a feather, thus qualifying the pharaoh for admission to the afterlife. A composite monster consisting of lion, crocodile and hippo would devour any pharaoh who failed this assessment.

The annual rains that brought a layer of fertile topsoil to Upper Egypt also formed part of the annual rituals of Egyptian life. Priests residing alongside the Nile invented a 'nilometer' that consisted of a series of steps whose inundation could be used to predict the possibility of flooding. The scorpion king, who was the unifier of Upper and Lower Egypt, participated annually in agricultural rites that took place in October after the inundation of the fields. Crops were harvested in January and in ancient Egypt it was the right of widows and orphans to gather dropped crops.

Houses in Egypt for pharaohs and commoners were made of papyrus bundles. Images of these were used in Egyptian imagery to symbolize the houses of the living. The houses of the dead were built from stone. The stone columns used to support the roof were crowned with engravings representing the papyrus bundles of the living.

Report by Louise Mackechnie

Gender and Sexuality in the Art of Athens in the Fifth Century BCE

Michael Lambert

After the momentous archaeological discoveries in Crete, on the Greek mainland and in Asia Minor (now Turkey) in the late nineteenth and early twentieth centuries and the gradual and at times haphazard revelations of Troy, Mycenae, Knossos, Pylos, Olympia and Delphi (to name but a few), scholarly interpreters of classical antiquity had to revise their methodologies as rapidly as the finds were published.

No longer could research into the cultures of the ancient Mediterranean be based primarily on the extant textual sources, but art and artefacts, together with coins, inscriptions and the very spaces themselves, had to be taken into account in what developed into a multi-pronged study of the ancient cultures of Greece and Rome, then regarded as the very fount of Western civilization.

To illustrate the intellectual mayhem which these discoveries wreaked in the scholarly studies of Oxbridge, Berlin and Paris, I would like to focus very briefly on the work of Jane Ellen Harrison on interpreting ancient Greek religion. One of the early women graduates of the newly-founded Newnham College at Cambridge in the 1870s (well, she was not permitted to graduate officially until 1948 and by then she was dead), Harrison realised that an interpretation of Greek religion could no longer focus on Greek mythology transmitted almost exclusively by male-authored texts in genres such as epic and tragedy, but had to include art and archaeology. In her work, the primacy of the texts gave way to the primacy of ritual and the ritual spaces (the temples, the altars, the heroa) revealed almost weekly throughout her career.

Harrison's work is obviously shaped not only by her intellectual milieu, but by her geo-political milieu as well: she was, after all, a classicist working at the height of the British empire, where regular anthropological accounts of remote peoples in Britain's colonies, largely administered by the classically educated, clearly shifted the focus to ritual and comparativism in studies of Greek religion more in Britain than anywhere else.

I chose Harrison not only because she was a woman and a lesbian, but also because her work sets the scene as it were for scholarly methodologies in the 21st century. Harrison's hermeneutic was shaped by Darwin, Durkheim, and archaeological finds. So too in 2018 we cannot look at Greek art without the lens of Foucault on the history of discourses of sexuality, or Althusser on ideology, or Laura Mulvey on the male gaze, or French feminist theorists such as Kristeva, or even early thinkers about gender such as Simone de Beauvoir, and later ones such as Judith Butler. In short, we can no longer talk about classical art as if it occurred in a beautiful vacuum of aesthetic inspiration, divorced from the sex of the artist and the model, divorced from ideologies about sex, genders, and sexualities, which underpin texts, myths and the very arrangements of buildings and spaces in the classical city.

How the Greeks represent themselves to one another and to outsiders (who may well live amongst them as foreigners or slaves) is an aspect of the creation of Athenian identity;

There is no doubt, certainly from extant art, that this discovery of the female body in Greek art is reflected in, let us say, a diminished interest in the depiction of male same-sex relations which disappear almost entirely from vase painting, as does the heroic male nude linked explicitly to democracy and the rise of polis culture. New icons appear, such as Alexander the Great, whose iconography link him with great heroes and conquerors; the comedies of Menander, pastoral poetry and the Greek novel celebrate heterosexual passion, although there are still, of course, poems which celebrate the beauty of young men, though not in the intensely homoerotic ambiance of the fifth century, when women's bodies were the mutilated other. This is not to suggest for a moment that Praxiteles' shift of the gaze from clothed and veiled 'other' to monumental female nude is in any way emancipatory for women; patriarchy is far too devious for that. Women still had no political or economic rights in the Hellenistic period, and some Hellenistic sculptors remind us of the daily despair of women, drunk and enslaved, but men had few political rights either, under the autocratic rulers (sons of God) who succeeded to the empire of Alexander.

Report by John Wright

Commoners and Elite at Great Zimbabwe: 1971 to 1975 excavations

Professor Tom Huffman

Professor Tom Huffman told us about the salient features of an excavation done in the early 1970s at Great Zimbabwe when archaeological artifacts were uncovered in trenches being dug to upgrade the visitors' centre.

Great Zimbabwe is one of over 300 Zimbabwe culture sites that have stone-walled structures. It includes the remains of buildings that served as a palace and provided ritual seclusion for a sacred leader. In the 1970s, the concept of a secluded dwelling space had not yet come to fruition. It was assumed that outlying ruins were the households of elite families more or less separated from everybody else, and that the Great Zimbabwe enclosure was probably a vacant ceremonial centre.

Prof Huffman gained permission to excavate an area of 50 x 30 m when alterations to the tea garden at Great Zimbabwe took place. About 70 structures were identified in this area over the five-year period of the excavation. They dated to different eras and it was not possible to excavate them all as more recent structures had been built over older ones.

The archaeological finds included a bronze coin from Kilwa (Southern Tanzania) that was embedded in a wall of one dwelling. This enabled the dwelling to be dated, as the coin is embossed with the name of the Sultan who ruled Kilwa from 1300 to 1333 CE. Copper bangles were also discovered and were dated to the same time period. Links to Mapungubwe were established through the discovery of pottery with a high black sheen which is typical of Mapungubwe pottery.

Before the 1300s, Great Zimbabwe was used as a ritual site for rain making. Mapungubwe, which predates the settlement in Great Zimbabwe, appears to have established as a trading centre as it was more accessible to trade from the coast. As Great Zimbabwe developed, many of the cultural practices brought from Mapungubwe evolved. The layout of the huts changed from having a central fireplace, a male area on the right-hand side of the hut, and a female area on the left-hand side, to having a fireplace to the side of the hut and separate huts for males and females. The central cattle pen was moved outside the commoners' section as cattle ownership shifted from commoners to royals.

An ingot of tin from Great Zimbabwe has been chemically identified as coming from the ancient tin mines of the Rooiberg to the north-west of Pretoria. This area is home to an unusual plant called the Transvaal Red Balloon tree. The seeds of this tree are very big and are used as spacers on necklaces. It grows as an exotic near the Khami ruins near Bulawayo, which provides evidence for a trade route between these two regions.

An elite settlement called Nemanwa that was located just outside Great Zimbabwe was also excavated. This settlement was occupied only intermittently when subordinate leaders from neighbouring regions visited to pay their annual tribute to the king. As possible rivals to the king, they were not allowed to stay in the town. The style of huts suggests that some were reserved for male occupants only. Evidence from a nearby midden supports this theory. The midden yielded the cores of over 56 cow horns. In Shona society only men can eat cow horns. The discovery of specific walling and types of pottery at this site indicate that by 1320 or 1330 Great Zimbabwe was a city state.

For some time the abandonment of Great Zimbabwe in the late 1400s was attributed to climate change. Now, however, it seems that the atrophying of tribute was the most likely cause. At around 1450 a rival political group was establishing its own capital at Khami. The power of its leaders was based on trading gold to the coast. They developed trade routes that bypassed Great Zimbabwe. They ceased paying tribute to the rulers of Great Zimbabwe, and hence strangled its economy. The Khami people increased in strength and numbers. They ultimately migrated north to form the kingdom of Mwene Mutapa, while only a handful of people remained at Great Zimbabwe.

Report by Louise Mackechnie