ELEPHANTHROPESTHES OF THE CEDERBERG

When elephants were people

Andrew Paterson

Paintings of elephant-headed people in the Cederberg are rare and only two such sites, out of a total of some 300 sites depicting over 800 elephant paintings, have been found to date. Two other sites with elephant-headed people have been found in the Drakensberg (Fig. 1). The unusual, elephant-headed constructs leave one wondering: why would the San artist paint such enigmatic images?

Paintings of animal-headed people have been recorded throughout San ethnography, right from the earliest meeting in Lesotho between Joseph Orpen and a Bushman called Qing in 1873. Qing revealed the mystery of the San mythology to Orpen when they visited paintings in the rock shelters of the Drakensberg. Orpen was shown a painting in a shelter called Melikane that consisted of dancing San figures with antelope heads bending forward. A copy of these dancing antelope-headed people was later made by Patricia Vinnicombe in 1959. Bleek & Lloyd (1870–79) recorded stories about people of the early race, during the time when 'elephants were people' (Fig. 2).

Marshall Thomas (1958) quotes the !Kung Bushmen as saying that the gemsbok people were not ordinary gemsbok but beings in gemsbok form. In 1976, Marshall (1999) recorded that according to !Kung lore, there are people who look exactly like gemsbok but can talk like people. They have gemsbok heads on people’s bodies. They originated the San artform

Andrew Paterson has for over a decade been studying the San rock art of the Cederberg with Prof. John Parkington of the University of Cape Town and the eCRAG rock art group of the South African Archaeological Society under the leadership of Prof. Janette Deacon. andypat@iafrica.com.
of making ostrich eggshell beads. Biesele (1978) stated that in virtually all San storytelling ‘animals were originally people’ and only became animals later. They are found in the San ‘stories of the old people’, n=oahsi o ndusimasi, or ‘stories of the beginning’, n=oahsi o kxaicemasi. Keeney (2015) quoted Ju’hoan elders as saying that the original ancestors were people with human bodies and animal heads, and that the oldest ancestor of the elephant dance was an elephant.

Definitions
South African archaeologists, led by Lewis-Williams and Dowson (1989), began to refer to depictions of human beings with animal features as ‘therianthropes’. The most prominent form of therianthrope, found primarily in the rock art of the Drakensberg, is the eland-headed figure. The Wikipedia definition of a therianthrope is: ‘The word therianthrope is derived from the Greek word therion (Θηριον, meaning "beast") and anthrōpos (ανθρωπος, meaning “human”), and refers to beings that are partly human and partly animal. It has often been used to describe mythological creatures and deities.’ For the sake of clarity, in this article I have chosen to call the elephant-headed people in the Cederberg rock art ‘elephanthrope’, since the term therianthrope is usually associated with antelope-headed people.

The San perspective of elephanthropes
The current South African archaeological view on the origin of the Cederberg elephanthrope images is based on shamanistic theory:

- The third and deepest stage of trance experience is the most complex. One of the features of deep trance is the blending of different visual hallucinations. Often these are human and animal forms (Lewis-Williams 1989).
- Some of the most interesting paintings of elephants are in the Western Cape [at Monte Cristo]. They are surrounded by zigzags and crenellated lines. Associated with these elephants are therianthropes with elephant heads and trunks. The surrounding lines are almost certainly entoptic forms, and the elephants are part of the shaman’s vision (Lewis-Williams 1989).
- We suggest that the series of paintings [at Monte Cristo] reflect trance vision and that for the San medicine man the elephant played a symbolic role parallel to that of the eland. The combinations of elephants with zigzag lines and other shapes suggests a stage of San trance performance in which the elephant, a culturally controlled and highly emotive symbol of trance power, was superimposed upon physiologically controlled hallucinatory forms (Maggs & Sealy 1983).
- One explanation of the significance of the wavy lines around the elephants [at Monte Cristo] is that they represent the aura seen around visions during trance. Whatever the motivation of the artist, the lines reinforce the non-reality of the paintings. They place the painting firmly in the realm of visions that are merged patterns of light, sometimes called entoptics seen during trance (Deacon 1994).

The San perspective, however, does not appear to support this shamanistic view and identifies far more closely with the concept of animal-headed people being mythological creatures, as in the dictionary definition above. Megan Biesele (1978) worked with the Ju’hoansi for over 40 years, learning to speak their language fluently. According to her, the central theme in Ju’hoan folklore and mythology is the ‘balance of power between women and men’, with the ‘beautiful elephant girl’ called G!kon!/’amdima playing a prominent role in a number of these myths:

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There are a number of medicine songs. The limitations:

- I had a kabi (a visitation or sacred vision from the Sky God/God the Creator or ancestors – Keeney & Keeney, 2015) in which the oldest ancestor of the elephant dance came to me. He was an elephant – Ju’hoan elder N!ani G!aq’o (Keeney 2015, 163).
- I have seen the original ancestors, the people with human bodies and animal heads. My grandfather first told me about those people. They still exist. They exist between us at the border of first and second creation. As all strong healers know, it’s not physically being the other animal. It’s becoming the feeling of the other animal – Ju’hoan elder G!aq’o Kaqcee (Keeney 2015, 152).
- Later I learned the giraffe dance and most recently the elephant dance. All dances awaken my njom and bring me close to God – Ju’hoan elder |Kunta Boo (Keeney 2015, 201).

Elephantropes in San mythology

There are at least five mythological stories featuring the beautiful elephantrophe girl heroine. According to Biesele (1993), elephantrophe mythology goes right back to the San women’s water creation stories about birth and the creation the first meat:

- Father elephant called everyone together. Let this camp split up forever. Let us all live separately. We are no longer related. And so, they all split up, went their separate ways and became the animals they are today.
- G!kon//'amdima’s (the elephant girl’s) heart left her upper back through her n//ao spot and became a steenbok, and that was the first meat.

In the mythological stories, the mythical function of the elephantrophe is primarily to guide the San in matters of correct social and ethical behaviour and to warn them of the dire consequences of not doing so:

- Their stories reveal concerns and relationships which may further illuminate what we already know about Ju’hoan society. A partial list of themes includes problems of marriage and sex, the food quest, sharing, family relationships, the division of labour, birth and death, murder, blood vengeance and the creation of the present world order (Biesele 1993).
- I have previously analysed the behaviour of the elephants at Monte Cristo in an article in *The Digging Stick* (Paterson 2007). I concluded from the evidence presented in that article that the wavy and zigzag lines surrounding the 30 elephants were a natural and realistic rendition by the artist of the elephants’ social structure and communication systems as found anywhere in Africa today. The world-renowned elephant behaviouralists Dr Joyce Poole and Dr Caitlin O’Connell Rodwell were contacted by email at the time and they agreed with my interpretation.

Elephantropes are also found in the Bleek & Lloyd (1878) mythological stories. According to the Lucy Lloyd’s *lxam* notebooks, |han=$kass’o told a story of a grandfather called Igwa !nuntu, who was a person of the Early Race. He neglected his grandfather duties one day while looking after his granddaughter. He fell asleep inside a hole and left the child above the ground digging for food. While he was asleep the child was taken away by the mother elephant.

Analysis from the San perspective

To make my argument that the elephantrophe is a mythological animal, rather than a non-real idiosyncratic hallucinatory aspect of a Shaman’s vision, I have chosen to analyse the Monte Cristo rock art site from the San mythological perspective. In my methodology I have used what I refer to as the behavioural analysis approach to rock art. It combines the ethology of elephant and San behaviour from a biological perspective with the ethnography of the San, including their culture, customs, initiation rituals and creative activities such as myth-making, storytelling, singing, dancing and painting. My analysis has been done within the context of a natural realism approach, which I believe is inherent in San rock art.

The behaviour of elephants has been regarded as one layer of information, the behaviour of San figures and elephantropes as second layer, and the ethnographic spirituality of the San as a third layer. The three layers were then merged to identify the behavioural interaction between the different layers and to arrive at a possible understanding of what the San artist had in mind when arranging the subject matter in this specific way on the rock face (Fig. 3).

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This leads to the conclusion that there is a completely different, plausible and alternative explanation of the wavy lines to that proposed by the shamanistic theory.

In this second article about the Monte Cristo site I have looked at another three aspects, highlighted in red in Fig. 3. The left-hand arrangement shown in Fig. 4 appears to include two sub-adult male elephants to the right of the main family unit in the family sound lines. These two elephants can be construed as being an illustration of young elephant males in the process of ‘transcending the gap’ between their matriarchal family unit and a separate male bonding group, before moving up the male hierarchy towards breeding status. This is a critical part of the male elephant’s life cycle and the San artist could have intended to portray the similar process undergone by young San males becoming men through their critical male initiation ceremony called tshoma.

The central arrangement at Monte Cristo can also be seen as an integral part of the male elephant’s life cycle. This arrangement, shown in Fig. 5, can be seen as the artist’s illustration of a male and female elephant in consort, which is typical of the elephant’s breeding period of about five days. The males make specific musth calls and the females make specific oestrus calls during this time (Poole 1997). Again, these sounds have been illustrated with the lines surrounding and connecting the two elephants. This aspect of the painting could be construed as being related to the San’s male initiation ritual and to correct San male behaviour during procreation. The mating period of the elephants is also closely tied to annual rain seasons and the movements of antelope during these cycles, which fits perfectly into the San’s concept of n!ao. This is related to rain, childbirth and hunting as described by Biesele (1993).

Finally, the lower arrangement at Monte Cristo (Fig. 6) seems to pull the interpretation of the whole site together. The painting appears to illustrate a San n/om-kxaosi, or owner of the elephant dance, leading a group of dancing elephant-headed men/ancestors/elephanthropes. All the figures in the dance appear to be connected by the ‘feeling of the elephant’ during the must or breeding period.

In summary then, the three painting arrangements at Monte Cristo all appear to be related to the life cycle of male elephants and their role in elephant procreation. By including dancing male elephanthropes and San males, each in an obvious, highly charged sexual state, suggests that the artist is making a direct connection between the male elephant’s life cycle and sexual activity, and the San male. The Monte Cristo site can therefore be seen as a San male initiation ritual site, with the subject matter possibly male behaviour toward females during procreation, all within the greater context of the elephant and San social structures. The paintings can be considered as containing and condensing specific knowledge that the San n/om kxaosi, or mentors during the tshoma initiation ceremony, intended to perpetuate and communicate to future generations of male initiates.

**Conclusion**

My conclusion in this article is probably best summarised by that which the San themselves have
told anthropologists, who have studied their culture and spirituality over the past 60 years. The sense is that the elephanthrope is definitely a mythical being and is a unique symbolic link that transcends all aspects of San creativity. This mythical being promotes a creative cycle of storytelling, painting, singing, dancing and transcendence in a timeless set of ritual behavioural patterns linked to San male and female initiation ceremonies. The physical performance of these rituals reinforces and confirms the original myths and their moral messages in the minds of the San. This process sets up a positive feedback loop that is central to the San’s unique cultural heritage. The truth of the myth is only ‘revealed’ if it is put into practice ritually or ethically (Armstrong 2005).

Elephanthropes have the power to mediate and transcend human limitations and to strengthen the bridges between the worlds of San spirituality (Biesele 1993). The San’s access to their first-creation elephanthrope ancestors, mentioned in the myths, is acquired through the elephant song and dance called !xo djxani, led by the ‘owner of the feeling’ of the elephant, namely the !xo njom kxao. The ability to attain transcendence through dance is most often learnt and passed down from the grandparents or parents of the respective njom kxao. In other words, the San receive this knowledge directly from their Creator God and immediate ancestors (Keeney 2015).

The Elephanthropes and elephants in San rock paintings all contain njom, the vibrant life force that animates all living beings and connects the San to the elephants. The San believe this force comes directly from God the Creator and is the source of all inspired energy. Released through song, dance and paintings, this life-giving force culminates in the intense ecstatic shaking called thara that overwhelms San participants at the liminal threshold of transcendence between the first and second creation worlds. These are the San’s two worlds of myth and reality (Keeney 2015).

Elephanthropes and elephants are also linked to the symbolic dramas of the San folktales as portrayed n’ao, which is a life force described as linking men’s and women’s great ‘procreative powers’ of childbirth and hunting to the vitally important polarities of the weather. Weather and ideas about its control are of life-and-death concern to San hunter-gathers (Biesele 1993). The force of n’ao transcends the boundaries of the confrontational unity that exists between man and woman.

Humans have been myth-makers since the time of Neanderthal man more than 30 000 years ago. Myths are universal and timeless stories that shape the San’s lives; they explore their desires, fears and longings, and provide narratives that remind them of what it means to be human (Armstrong 2005). The San are bound up in a series of symbolic or mythical representations; they lie suspended in webs of significance spun only by themselves that serve to generate and maintain their meaning of life (Geertz 1973). The elephanthrope helps the San n/om-kxao to transcend culture, gender and species in favour of being a transient and changing participant who finds life inside the acts of recursive creative change and in the expression of the ‘circulation of creation’ (Keeney 2015). Biesele (1983) put it as follows: ‘The symbolic work of both painters and storytellers should be regarded as thoroughly practical in effect

What these artisans do is best seen as a form of action upon the conditions necessary for the reproduction of their societies. The success of hunting-gathering societies in human evolutionary history suggests we should explore their communication mechanisms.’ The elephanthrope is considered to be one example of the San’s timeless communication mechanism in which the elephant plays a significant role.
Excavation of Little Foot skeleton reveals history over the ages

The 14-year-long excavation and six-year cleaning and reconstruction process of the *Australopithecus* skeleton known as Little Foot from the Sterkfontein Caves has revealed much about the individual, what happened to her after death and how the skeleton was preserved. The history of work on the 3.67 million-year-old fossil has been described for the first time by Prof. Ron Clarke in the *Journal of Human Evolution*.

In 1994 and 1997, Clarke identified 12 foot and lower-leg bones of an *Australopithecus* individual misidentified as animal fossils in boxes stored at Sterkfontein and the University of Witwatersrand. Clarke and his assistants, Stephen Motsumi and Nkwane Molefe, then located the very spot where the bones had been blasted out by lime miners many decades ago in a deep, dark part of the Sterkfontein Caves. The team found contacts with two broken-through shin bones in a concrete-like cave infill and started the excavation process. The removal of the overburden with hammer and chisel was followed by the painstaking process of locating and exposing the bones with an airscribe (a thick vibrating needle). What they have excavated turned out to be a virtually complete *Australopithecus* skeleton, a first for a South African in situ excavation.

The excavation process has revealed that after falling into a deep cave, the *Australopithecus* was mumified during dry conditions. This was followed by a slight displacement of some skeletal parts through slippage on the rock-strewn talus slope in the cave, the crushing and breaking of some bones through rockfall and pressure, calcification after a change to wet conditions, and a partial collapse of the cave infill. This left voids that were later filled with stalagmitic flowstone that encased breaks through the femurs.

Early attempts at dating the skeleton relied on the stalagmitic flowstone that encased the fossil. However, it became apparent that these were later flowstone infills of voids created by the collapse. In 2015, cosmogenic isochron dates using 26Al and 10Be were published in *Nature*, showing that the age of the actual breccia containing the skeleton dates back ca 3.67 million years. This is consistent with the original age estimates of around 3.5 million years that were proposed based on the low stratigraphic position of the deposit within the cave.‘  

The Barberton Mountains a World Heritage Site

The Barberton Mountain Land, or the Barberton Greenstone Belt, in Mpumalanga was inscribed on UNESCO’s World Heritage Site list in July 2018 in recognition of the region containing some of the most widely accepted fossil evidence for Archaean life dating back 3.5 billion years. It also contains the best-preserved, oldest and most diverse sequence of volcanic and sedimentary rocks on earth. The well-researched outcrops provide a globally unique source of information about the earliest measurable conditions at the earth’s surface.

The mountains have become known as ‘the history of our planet cast in stone’ as there are very few places where rocks of the Archaean period are visible. Most other sites are far removed and hard to reach. There are hundreds of geosites of interest in the Barberton Makhonjwa Mountains, which, when their information is combined, tell a richly consistent story of when and where life began.  

Website, July 2018

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The maritime history of Simon's Town in the Western Cape began when the Dutch East India Company in 1741 required that their trading vessels should stop in False Bay from May to August for revictualling, repairs and health reasons to avoid Table Bay's onshore winter storms. Simon's Town was developed for this purpose and as a consequence it is rich not only in historical stone and brick buildings but also in engineered structures.

Visitors approaching from the north may notice a sequence of steel pylons ascending the steep mountain slopes above the town and wonder: ‘What were they for?’ A visit to a site featuring antiquated machinery might not immediately set intellectual curiosity buzzing but in October 2016, 26 members of the Western Cape Branch of the SA Archaeological Society ventured into the field of industrial archaeology and discovered the answer: the pylons supported the aerial ropeway that came into being as a result of the construction, in the early 20th century, of a new Royal Naval Hospital and laundry, as well as a sanatorium for convalescent sick and injured seamen on the plateau above the town. Today, the laundry building is unused and is closed to the public. Permission to visit the laundry was given by Commander Leon Steyn, Officer-in-Charge of the SA Naval Museum in Simon’s Town.

The first substantial British hospital was built from 1810 to 1812 in anticipation of the establishment of Simon's Bay as a year-round Naval Base in 1814. The hospital apparently kept at the forefront of modern medical care: in 1872 an amputation of a leg and a thigh, and another of an arm at the shoulder were conducted according to the revolutionary principles of antiseptic surgery announced five years earlier by Dr Joseph Lister. However, by the 1890's the hospital had become inadequate in the light of new standards for hospital buildings and facilities. Construction of new hospital began in 1899 on the slopes of Mount Pleasant, now referred to as Cable Hill, on land above Cornwall Street and approximately in line with the Residency and the Law Courts, now the Naval Museum.

In contrast to previous Dutch and British hospitals, which were close to the shore, the new location was on high ground and the terrain was steep. Construction material was conveyed by ox-wagon or pack donkeys or man-handled up the slope; in 1902 it took two hundred men to haul up the boilers for installation. It was realised that the problem of transporting various items from the Naval Yard to the hospital, laundry and sanatorium urgently needed to be addressed. In 1904 the aerial ropeway came into operation, at which time the hospital and laundry were already open. However, the sanatorium had yet to be finished and the convenience of the ropeway speeded up its completion in 1905.

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Laundry layout

The fully equipped laundry still exists but is no longer operational. It was a typical Victorian steam laundry in which boilers were used to power washing machines, and a steriliser, heat water for washing, heat a drying room and power a mechanical ironer. The building is rectangular and a 1902 Plan (Fig. 1) shows that it included out-patient's rooms, a dental surgery, a cash office and a connecting passage. It must have been a noisy place as the mangling, drying (Fig. 2) and pressing of laundry proceeded in the drying room on the other side of a dividing wall. A horizontal washing machine (Fig. 3) for normal laundry is still in place in a separate room. Laundry requiring disinfection in the autoclave was handled separately in the next room (Fig. 4). The engine and boiler rooms (Fig. 5) towards the north end of the building were separated from the washing area and had a separate entrance. Likewise, at the north end, a dividing wall separated the incinerator (called a destructor in Victorian times) from the boilers, and engine, and had separate entrances. The heat from the boilers escaped through a pipe in the dividing wall into the chimney stack, which itself is a fine example of good brick work.

The supplier of the machinery was W Williamson & Company Ltd of Holborn and Hackney, London, established in 1850 as 'Laundry Engineers and Machine Manufacturers' and winner of medals at the Health Exhibitions of 1862 and 1884. They supplied two boilers (244 cm dia. x 366 cm high and weighing 4–5 t each); a single-cylinder vertical steam engine of 12 hp; a lineshafting measuring 30.5 m rotating at 120 rpm; its cast-iron support brackets; two washing machines (91 cm dia. x 107 cm long); a hydro-extractor (an early form of spin-drying); and a drying closet comprising drying horses with steam heater and fan. Other manufacturers contracted by Williamson were AG Mumford of Colchester for Banjo boiler feedwater injection pumps; Manlove Alliott & Co. of Nottingham for the incinerator and the autoclave; Cherry Tree Machine Co. of Blackburn for a hydro-extractor, steam ironer and washing machine; Hoffman-Vorclone of Syracuse, USA, for a second hydro-extractor; and Hubert Davies & Co. of Johannesburg for electric motors. Additional machinery sourced elsewhere by Williamson included a belt-driven extractor fan, a rinser, a wringer, a mangle, two soap boilers, a pitch-pine steeping trough, four pitch-pine hand-washing troughs, a starching trough, an ironing stove, pipe-work, valves and tables.

Williamson & Co. was at Milborne Street in Hackney, a residential area of narrow, short interleading streets and had a separate entrance. Likewise, at the north end, a dividing wall separated the incinerator (called a destructor in Victorian times) from the boilers, and engine, and had separate entrances. The heat from the boilers escaped through a pipe in the dividing wall into the chimney stack, which itself is a fine example of good brick work.

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Williamson & Co. was at Milborne Street in Hackney, a residential area of narrow, short interleading streets
and a long way from railway, canal and river transport terminals. The congestion of the Milborne Street area as shown on an Ordnance Survey map of 1893 leads to the conclusion that the Williamson facilities were probably little more than a drawing office, a procurement department, a warehouse for small parts and possibly a small machine shop. There is no sign of a large manufacturing plant on the map and such a plant would probably not have been economic as the demand for steam laundries would have been sporadic. Williamson was more likely to have been an early example of outsourcing: it carried out the design and managed its own patents, and outsourced or subcontracted the actual manufacturing of boilers, steam engines, etc. to specialist engineering companies.

The whole consignment for Simon’s Town was transported to the West India docks in London and was loaded aboard the SS Swazi on 22 August 1901. Meanwhile, in Cape Town, detailed drawings were supplied to guide the local building contractor, A Hopkins. Presumably, the above equipment as ordered was duly installed and brought into operation. However, machinery in the laundry was changed or updated from time to time to reflect the number of hospital beds that were available or in use during a particular period. During both World Wars, but particularly WW2, additional beds were provided to meet the anticipated demand and the laundry machinery had to be augmented accordingly. For example, the driveshaft from the steam engine was supplied with a set of driving wheels to power the various machines via the drive belts. The original driving wheels were single-piece castings, which would have been assembled onto the driveshaft when the laundry was constructed. When additional machines were installed, split driving wheels had to be used; these were in two sections for bolting together onto the driveshaft. The original hydro-extractor appears to have been repositioned and the belt drive from the driveshaft was abandoned in favour of an electric motor, which probably increased its speed and therefore its efficiency in drying the washed items. The laundry as it stands probably reflects the final arrangement brought about by WW2, although certain items (such as the steeping troughs) have been removed. It appears that three hydro-extractors were adequate for WW2 peak usage.

A hospital and especially its laundry uses large volumes of water. To meet this demand, two large steel storage tanks with a combined capacity of 112,000 gallons were located on the cliff above the hospital. They were fed by springs on the mountainside that delivered very pure water. The Royal Navy (RN) retained a mason as part of the dockyard staff and his job involved visiting the numerous springs to keep them clear of any silt or restrictions. This practice ceased after the RN departed in 1957 and the tanks were demolished and sold as scrap. The foundations can still be seen.

On our visit, the incinerator could not be viewed as it was sealed off because of repeated vandalism. But it is a most interesting piece of equipment. A hopper at the top of the ‘feed end’ received the waste that dropped down into the coal-fired furnace. There was a second furnace further along that could be brought into use, if necessary, to ensure complete combustion of ‘difficult’ wastes. After the second furnace there is a crude ‘butterfly valve’ that was used to regulate the airflow through the incinerator. This was essential as the tall chimney evidently created a very strong updraught when the south-easterly gales were blowing. The condition of the valve internals shows that the heat generated within the incinerator must have been substantial. The exhaust from the incinerator entered the stack at its base. The exhausts from the two vertical steam boilers entered the stack further up, and they were similarly controlled by individual butterfly valves.

![Image: Incinerator](image.png)

**Fig. 4: Autoclave for the disinfection of linen using formalin.** It is built into the dividing wall between the room where soiled linen was loaded and the room where the disinfected linen was extracted and taken to be washed, dried and ironed. The linen was held in a deep, metal-framed wire-mesh basket with a high handle with a cross-bar and hooks from which it could be suspended. The basket slid in and out of the autoclave on four wheels that ran on a track inside the machine. Note the heavy doors and the handles to prevent leaking.

**History of the hospital facilities**

The hospital and its laundry were officially opened in October 1904 by HRH Princess Christian of Schleswig-Holstein, third daughter of Queen Victoria.
Her presence, and the extent and quality of the facilities and services the hospital provided to the British Empire, attest to Whitehall’s awareness of the need for proper attention to the health of RN personnel and other maritime visitors at this strategic naval base. The laundry had a ‘European’ matron and five Malay ironers. Probably two ‘native’ men operated the boilers, engine and disinfection facilities. The autoclave used formalin to disinfect bed linen. Formalin combined with fastidious hand washing with carbolic soap under the strict eye of the matron ensured that the Methicillin-resistant bacteria *Staphylococcus aureus* and *Clostridium difficile* did not occur. In 1957, when the RN withdrew from Simon’s Town, it handed control of the dockyards and associated facilities to the SA Navy, which decided it had no use for the hospital or the laundry. Patients were referred to the local clinic at Queen’s Battery or to the Wynberg Military Hospital. The hospital wards were converted into living accommodation for senior SA Navy officers.

The Victorian kitchen was a superb example of its kind; sadly, its equipment was stripped and the place was used as storage area for the musical instruments of the SA Navy Band. The nurses’ home was abandoned, vandalised and demolished, and the land is now part of the Simon’s Kloof Estate. The sanatorium buildings were used as a Signal School after 1957 and today are occasionally used for training and lecture purposes, mainly by other branches of the SA National Defence Force. In the Klauer Valley, the high-powered radio transmitting/receiving station, which had its aerial array displayed on very high masts so that the signal reached vessels in most parts of the southern hemisphere, was abandoned, demolished and sold off after the British left. The only attraction of the area today is the adjacent grave of the dog, Able Seaman Just Nuisance, the Great Dane.

**The ropeway**

And what of the ever-visible ropeway (Fig.6)? It started in the West Dockyard alongside the Old Sail Loft and Clock Tower. The original wood pylons were replaced by steel structures in 1913. It required only one driver in the engine house to run operations and he held his post for the entire time the ropeway was in use. Another stalwart was in charge of the cable car; when it passed through the pylons he turned a handle that rang a bell in the engine room where a clock-like dial showed the driver where the cable car was. According to a site plan, pylons 4 and 5 were on the hospital property, with the first landing stage in between them in line with the medical stores building. Pylon 5 was adjacent to the laundry but was not a landing stage – it supported the cable. The laundry was in line with the three wards and their operating theatres and probably laundry could be easily carted or carried to and fro from the wards or transported down to the landing stage below. The second landing stage was also in the hospital precinct on high ground supported by a retaining wall but not near to any buildings, perhaps in anticipation of extensions.
to the hospital. The final landing stage was at the sanatorium.

Over time, the ropeway carried thousands of patients, naval ratings, navy and civilian recreational groups as well as tons of food and stores. Unfortunately, an inherent flaw in bureaucratic administration from afar brought this very useful operation to an unnecessary end. A few times a month, on a Friday, the commander sent a signal to all ships and naval departments that the ropeway would be closed to passengers for a day. A cargo car was then fitted to transport heavy stores such as coal to the hospital, laundry and sanatorium. The signal was also sent to the Lords Commissioners at Whitehall, London. There, around 1926 when a big ‘economy drive’ was on, a zealous public servant noticed these closures and deduced that these interruptions to the service made the ropeway an uneconomical operation. He recommended that the Lords Commissioners shut down the ropeway, which they unquestioningly and promptly did. In fact, the ropeway had operated efficiently and without any major breakdowns or accidents since its introduction. By March 1927, regular use of the ropeway seems to have stopped; there is a record that it was used on one Monday, possibly for the last time, to transport men to fight a bush fire that had broken out at Klawer Valley. The ropeway was dismantled only in 1934. Its cable was used at Green Point Common to launch the large sewerage pipeline that had to be towed into place and sunk out at sea. The outlet was just beyond the Mouillé Point lighthouse. During WW2, and on many occasions thereafter, the loss of the facility was deeply regretted by all.

ARCHSOC AND ASAPA NOTICES

Annual General Meeting

Notice is hereby given in terms of section 8(a)(i) and (ii) of the Constitution that the Annual General Meeting of the Society will be hosted by the Western Cape Branch on Tuesday 14 May 2019 at 18:30 at the SA Astronomical Observatory auditorium in Observatory, Cape Town.

Members should submit items for the agenda in writing to the Secretary, PO Box 15700, Vlaeberg 8018, or at archsoc@iziko.org.za, before 1 March 2019. Proposals must state in specific terms the resolution to be put to the meeting and the reasons therefor.

Janette Deacon, Honorary Secretary, 5 January 2019

Subscription rates 2019

Membership subscription rates for the SA Archaeological Society for 2019 are as follows:

**South Africa**

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Subscription rates may be paid by EFT or by credit card (please supply the necessary details).

The 2019 ASAPA Conference

The 2019 ASAPA Biennial Conference will take place at the new Sol Plaatje University in Kimberley from 3 to 5 July 2019. It is to be hosted jointly by the university and Kimberley’s McGregor Museum.

The theme of the conference will be ‘I am because we are: indigenous heritage in African archaeology’, referencing Ubuntu philosophy to local perspectives and emphasising the necessary engagement of archaeology with its range of constituencies, particularly communities in which archaeological research is being conducted. There is an urgency in this regard as archaeological heritage competes increasingly with mining and development in the context of striving for economic betterment. Legislation exists, but the challenge for archaeology is to demonstrate the sustainable benefits of heritage for local people vs the ultimately finite ones from mining. These and many other issues will no doubt arise at the conference.

ArchSoc members are welcome to attend the conference at ASAPA member rates. Post-conference excursions to various sites in the Northern Cape will be hosted by the conference organising committee. These may be of interest to the ArchSoc members as well. To put down your name for the conference or obtain further information, contact David Morris (asapa2019@asapa.co.za) or the Conference Coordinator, Glaudin Kruger on kruger@krugerassociate.com. Tel: +27 28 316 2905 or +27 72 320 7015. Website: www.asapa2019.com.

Remember to consult the ArchSoc national website at www.archaeologicalsa.co.za for regular news.
Sandeman (1880:157) mentions in his travelogue that there was a ‘huge native village’ set aside from the Botshabelo Mission Station located about 10 km north of Middelburg in today’s Mpumalanga province. The area became known as the Motse, meaning ‘village’ in Sotho. The research I carried out here focused primarily on a collection of homesteads set apart from the main mission complex.

The Botshabelo institutional mission station was founded in 1865 by the missionaries Alexander Merensky and Carl Heinrich Grützer from the Berlin Mission Society (BMS). This type of mission station was founded for religious, educational and social purposes, as was common in the 18th and 19th centuries. Such organisations had rigid beliefs and considered the enforcement of restrictions a means to an end. Missionaries were not only instructed to introduce their Christian teachings and traditions to the indigenous population but also to acquire a thorough knowledge of the local language and its grammar, and of the people’s histories (Kirkaldy 2005).

The first BMS missionaries arrived in the Orange Free State as early as 1834 but they only began their activities in the then Transvaal in 1857. It is here that they had their greatest successes, of which Botshabelo was their greatest. When the missionaries expanded their activities into the Transvaal, they entered a complex social and political landscape. Many communities were being dispersed within the interior of the country owing to the instability caused by the difaquane, and this together with the arrival of the Great Trek, the formation of the Boer Republics and the subsequent appearance of the British all led to a period of substantial turmoil (Delius 1984).

Botshabelo was established on the farm Boschoek (now known as Toevlugt), which is ideally situated in a valley with fertile soil, plenty of grazing and ample water from the Klein Olifants River that runs through the property. Merensky arrived at the farm with a group of dispossessed people from Sekhukhune’s Bapedi polity and joined a small group of Bakopa who had already settled there. The missionaries decided to call their new mission station Botshabelo, which means ‘place of refuge’ in Sotho (Fig. 1).

The main objectives of my research were to try and refine the understanding of the chronology of the settlement area and the architectural changes that occurred in the Motse over time. Through the excavation and analysis of the archaeological cultural material from two house structures, the domestic economy and consumption patterns of the households were also to be explored.

The people who lived in the Motse were by all accounts ordinary people living normal everyday lives, using everyday material objects. These objects were central to my study of these households. Even though Botshabelo and the Motse date from 1865, the material culture excavated and analysed is...
predominantly from the 20th century. There is a little-known field in archaeology called the archaeology of the contemporary past that can be applied to the study of the more recent past. It is relevant to sites dating from after the World War I to the present. The material culture excavated at the houses of the Motse falls in to this archaeological category (Harrison 2011).

**Botshabelo and the Motse in space and time**

At its establishment, the Botshabelo mission only had a small church and temporary living quarters together with a fort that was built to provide protection. Fort Merensky, historically known as Fort Wilhelm, was built on top of a hill to the east of the mission station. Merensky, in his autobiography published in 1899, mentions that after construction of the rudimentary church and mission house, some of the people that had settled on the farm decided to move further away and started to build houses close together on the flat open grass plain south of the mission station. The Motse was positioned between a rocky outcrop in the south and a swampy area near the Keerom River in the north. This area was ideal for settlement as it had rock for building, clay and water from the adjacent river, and grass for thatching. It was approached by a small track leading off the main mission access road. The Klein Olifants River lies to the north-west of the village and became very important for agriculture and farming (Fig 2).

Currently, there are 32 individual homestead enclosures evident in the village with some house structures, two water wells and the remains of two forts, which were built at the time the settlement was established. The homesteads represent only a fraction of the original village and are all in various stages of collapse. The settlement was largely destroyed in the 1970s when Botshabelo and the Motse were demarcated as a ‘Black Spot’ in terms of the Groups Areas Act. The people of the Motse were forcibly removed and several houses were bulldozed. Some of the houses were saved when Peter Klaus and Hans Gastrow, who were both living at the mission station at the time, ran across to the Motse and painted white marks on staff homes to indicate that they should be left alone during the forced removals (Le Roux & Fisher 1991). In the early 1980s the last residents of the Motse were moved to new houses elsewhere on the property.

As the intention of my research was to try and understand the chronology and the architectural changes in the Motse, much of this was done by consulting and examining various documentary (e.g. visitors’ accounts and missionary documents), and pictorial (photographs and engravings) and cartographic sources. Such sources often contain important information that offers insight into how an area has changed over time. Of great value to this research project was the Hoffmann Collection, a digital collection on the history and ethnographic work of Carl Hoffmann, who was once stationed at Botshabelo (http://hoffmanncollection.hu-berlin.de).

The missionaries’, travellers’ and visitors’ accounts written during the first few years of Botshabelo’s existence provide a glimpse into the organisation and functioning of an institution of this nature at its establishment. As part of the chronological

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**Fig. 2: Satellite image of the Motse (Google Earth Pro, retrieved 2017)**

**Fig. 3: ‘View of local villages with rondavels in Botshabelo’ by D Wangemann, nd, HCCK Resource ID 928 (reproduced under CC by 4.0 International License)**
reconstruction of the Motse, early maps drawn by Alexander Merensky were studied in conjunction with sketches by Hermann Theodor Wangemann dating from between 1865 and 1882. The accounts by travellers such as EF Sandeman and General Wolseley, who both visited Botshabelo in 1880, indicate that they were very impressed by the way Merensky had organised and managed the mission station. These colonial authors were somewhat selective in what they chose to recount and convey regarding the mission station, and limited information was given in particular on the village of the Motse, which seems to be mentioned only in passing. However, by studying these sources, we know that the original houses of Motse were pole-and-reed dwellings or grass-domed huts that evolved over time into stone, brick and plaster structures with thatched or zinc roofs.

Missionaries measured their successes by the noticeable changes seen, in particular as regards the architecture and settlement patterns of the villages surrounding their missions. The Motse settlement changed noticeably from its first dwellings at the time of establishment to the ones that more closely approached Merensky’s world-view. It progressively developed into a mission settlement that had homesteads and houses grouped not too far from the mission core, and a church, a school and other buildings to support the residents of the area.

By examining these sources it is clear that the architectural transition of the Motse was a gradual one and not always simple. Sometimes various architectural forms were combined in one home-

The archaeology of the Motse

After a survey, two intact houses, one in the west of the village and one in the east, were chosen for excavation and comparison. These were dubbed Motse 11.7 and Motse 11.25 respectively. Motse 11.7 consisted of two stone structures, one of them attached to the back of the main house, a small garden, an outside bread oven and two kraals. The buildings are in various stages of collapse and nothing of the thatch roof remains. A midden about 3 m long by 2 m wide in the shape of a small hill is found between a small round structure, most probably a kraal, and a heap of collapsed rocks, part of another kraal (Fig. 4).

Motse 11.25 comprises four rectangular buildings and one round structure to the south of the homestead. The main house has three rooms, which were most probably living rooms, and a kitchen. A square structure adjacent to the main house suggests the home was enlarged at some stage. The midden associated with this homestead was found west of the main house and was fairly flat, occupying an area of some 10 m². The homestead is enclosed by a low stone wall and the structures are very well organised (Fig. 5).

My excavations, though limited in scale, yielded useful cultural material that provided valuable information. Analysis of the objects found at the
two households focused primarily on the glass and ceramic assemblages, as these could be the best indicators for the chronology of the deposits, as well as providing information on consumption patterns. Households leave behind a record of their past consumer behaviour that reflects the social-economic class and gender of the occupants, and also gives an indication of how the households interacted with the wider community. The cultural material found at the houses under discussion consisted of building materials, such as brick, plaster, concrete, nails and screws, as well as household items including plastic, metal tins and containers, glass and ceramics. Organic food products, such as butchered soup bones and chicken bones were excavated together with the remains of food packaging, including rice packets (Fig. 6), margarine and yoghurt wrappings, and hygiene products such as toothpaste tubes from the 1950s and skin lightening cream tubes.

The cultural material excavated at Motse 11.7 was very modest and utilitarian in nature. With regard to glass artefacts, a large portion comprised alcohol and beer bottles, but sauce, oil, milk, preserve bottles and jars also featured. The contents of the latter would all have been used in cooking, which could have been done in the clay oven at the back of the house. Concerning ceramics, these comprised an almost equal quantity of decorated and undecorated as well as traditional items, such as local pottery and an upper grinding stone. Glass and plastic beads were also found, as well as scholarly items. Analysis of the material culture of this household points to the inhabitants being very social and interacting with the wider community.

In contrast, Motse 11.25 produced little or no alcohol bottle fragments. Remnants of tableware and more decorated than undecorated ceramics were found. Items such as silk stockings, a heel from a yellow high-heeled shoe, wool, a sewing needle, modern kitchen plastics, glass and plastic beads, and skin lightening cream tubes dating from the 1930s were also excavated. The array of artefacts indicate that this household consisted primarily of women. Household income can influence the type of ceramics discovered at a home, as can products such as face creams, other toiletries and skin lightening creams since such products were expensive to purchase.

An analysis of the two assemblages appears to indicate a slight chronological difference, with Motse 11.7 containing some older artefacts than Motse 11.25. The cultural material of both households probably dates from the late 19th/early 20th century to the recent past. The material also shows that both sets of residents were attentive to their homes and to themselves. The consumption patterns indicate that the household members were probably working, either at the school at Botshabelo, in nearby Middelburg or further afield in larger cities such as Johannesburg, or on the mines. Even though the two households were part of the same mission station landscape, it is clear that they responded to their individual social circumstances and organised themselves differently (Hendon 1996).

Conclusion

By studying these households, information on the residents’ status, production and consumption can be examined, together with larger themes such as gender, identity and ethnicity (Pluckhahn 2010). At the turn of the century, when industrially manufactured goods such as food and household items became more readily available and more affordable, the consumption of such goods began to escalate, especially among lower income classes as in the Motse. Soon a mass market began to emerge. Individuals were making consumer choices based on their own experiences, desires and opportunities, and in due course the residents of the Motse began forming their own identities. Residents became part of an emerging South African consumer class and were also trying to find their position in a country undergoing political change.
As the historical and political situation changed in South Africa, mission stations such as Botshabelo transformed their function from religious to largely educational institutions. During the first half of the 20th century, mission schools became increasingly important. It is in this atmosphere that the residents of rural villages such as the Motse, came into contact with new ideas and customs through, for example the printed media. By relating to advertisements in magazines and newspapers they created an emerging African consumer market.

All that was previously known of the Motse was from missionary reports, journals and travellers’ accounts that are very limited in their information. Archaeological research into households at the Motse has provided a greater understanding of the relevant consumption patterns and household relationships in the contemporary past. By drawing on the various historical sources and combining this with a careful archaeological investigation, the forgotten story of the Motse can begin to be told.

Acknowledgements
I would sincerely like to thank Dr Natalie Swanepoel who supervised my dissertation research, and whose guidance and patience were immeasurable. My thanks also to the students at the UNISA Field Schools of 2013 and 2014, who literally did all the heavy lifting. This research was funded by the National Research Foundation (NRF) and the University of South Africa (UNISA).

References
As an amateur coin collector, I recently obtained a Greek ‘didrachme’. The inscription indicates that it was minted in Neapolis (modern Naples in Italy). Coins of this type depict a female head on the obverse side (in some cases Parthenope), while the reverse shows a man-headed bull (Achelous) in association with the image of Nike, symbol of victory (Fig. 1). I treasure my Greek coin for its historical rather than for its monetary value. My interest relates not only to its approximate date but also to the origin of the imagery of a man-headed bull.

Coins are often catalogued with dates that are associated with an estimated range, such as ‘300–280 BC’. In the case of Neapolitan ‘man-headed bull’ coins associated with Nike, I recognise that they may have been minted within a certain period of time. I have attempted to estimate when such coins were initially minted by looking at the earlier of the two estimates in the case of 50 coins listed in several catalogues. The average age for such coins is 310 ± 37 years BC.

Achelous
The man-headed bull in Greek coins of the kind shown in Fig. 1 is associated with Achelous (Ἀχελώιος), a deity connected with rivers or the sea. This deity was the father of Parthenope. The association with rivers or the sea was probably an adoption of earlier beliefs. The name Achelous is probably pre-Greek in origin. The form ελώιος may stem from an Akkadian word illu, meaning watercourse, or ilu, referring to a deity (Molinari and Siski, 2016).

Man-headed bulls occur in Lamassu statues in Assyria, at places such as Nimrud. These structures (of the kind on display today at the British Museum, the Metropolitan Museum in New York and the University of Chicago Oriental Institute) are colossal. Some may date to around 800 BC. An example from Khorsabad (Fig. 2) shows a bull seen from the side walking with the human face turned at 90 degrees from the bovine body.

Conclusion
A hypothesis in this exploratory study is that the imagery on this Greek coin may be related indirectly, if not directly, to earlier iconography associated with the Assyrian Lamassu statues described. Alternatively, the observed similarities may be entirely coincidental.

In passing it can be mentioned that Lamassu structures were seen by Alexander the Great after 330 BC when he minted coins to commemorate victories in Persia. Alexander is himself commemorated in a famous mosaic at Pompei in the area of Naples. This Roman mosaic is based on the Greek artwork of an early 3rd century BC painter, Philoxenus of Eretria.

Acknowledgements
I am grateful to Amelia Dowler, Curator of Greek and Roman Provincial Coins in the Department of Coins and Medals at the British Museum for kindly commenting on earlier exploratory manuscripts.

Reference

Fig. 1: Greek coin from Neapolis with an anonymous female head (left) and a man-headed bull crowned by the winged goddess Nike (note the laurel wreath) to commemorate victory. http://www.coinarchives.com/a/results.php?search=Campania+and+Neapolis.

Fig. 2: An Assyrian Lamassu statue, showing a bull with a human head turned towards the viewer. From Khorsabad. http://www.joanannlansberry.com/fotoart/assyrian/lamassu.html.
Hundreds of thousands of years ago, around 100 km west of present-day Marrakesh, a group of people lived in a cave overlooking a then lush Moroccan landscape. They rested there, building fires to keep themselves warm. They hunted there, sharpening stone tools to bring down animals. And they died there, leaving their bones behind in the dirt. At the time, there would have been nothing particularly notable about these cave-dwellers but in their death they have become singularly important. That cave is now called Jebel Irhoud and the bones of its former occupants recently unearthed by an international team of scientists could be the earliest fossilised remains of *Homo sapiens* ever found. Until now, that honour belonged to two Ethiopian fossils that are 160,000 and 195,000 years old respectively. The Jebel Irhoud bones and the stone tools that were found with them are far older – around 315,000 years old, with a range of 280,000 to 350,000 years.

It is not just when these people died that matters, but where. Their presence in north Africa complicates what was once a tidy picture of humanity arising in the east of the continent. ‘What people, including myself, used to think was that there was a cradle of human-kind in East Africa about 200,000 years ago and all modern humans descend from that population,’ says Philipp Gunz from the Max Planck Institute for Evolutionary Anthropology. ‘The new finds indicate that *Homo sapiens* is much older and had already spread across all of Africa by 300,000 years ago.’

Jebel Irhoud rose to prominence in 1961 when miners turned the site into a quarry. They were looking for barite minerals but to their surprise they found a fossilised skull. Soon they disinterred more bones: another skull, a child’s jaw and fragments of arm bones and hips. From the start, these specimens were controversial. Their exact location was never recorded, which makes it very hard to work out their age. Scientists initially thought that they were the 40,000-year-old remains of Neanderthals. In 2004, Jean-Jacques Hublin from the Max Planck Institute led a team to the site in a search for more fossils. And after a few seasons of digging, they found a partial skull, fragments of facial bones, a nearly complete adult jawbone and other bits and pieces from at least five individuals.

These people had very similar faces to ours, albeit with slightly more prominent brows. But the backs of their heads were very different, being longer and closer to extinct hominids like *Homo erectus*. Their brains, though already as large as ours, must also have been shaped differently. It seems that the size of the human brain had already been finalised 300,000 years ago, but its structure, and perhaps its abilities, were fine-tuned over the subsequent millennia of evolution.

At Jebel Irhoud, the team also found several stone tools, small pieces of flint with sharp edges. Some of these had clearly been heated, but not deliberately. More likely, ‘you can imagine that people were dropping stones on the ground and later starting fires on top of them,’ explains Shannon McPherron, an expert on stone tools. The team exploited this incidental heating to date the tools. Over time, flint gradually builds up a small charge as it reacts to natural sources of radiation around it. That charge dissipates whenever it is heated, before growing again. This technique, known as thermoluminescence, enabled McPherron’s team to work out that the tools were from 280,000 and 350,000 years old. The team checked those dates by determining the ages of the fossils. From readings of the site itself they got a date of 286,000 years. The new dates radically change the position of the Jebel Irhoud residents in the family tree of our species. According to Gunz, we now know that they are close to the root of the *Homo sapiens* lineage.

The new specimens cast fossils from other parts of Africa in a new light. For example, the so-called Florisbad skull, which was discovered in South Africa in 1932, is around 260,000 years old. ‘People had a hard time accepting this as a member of *Homo sapiens*, but I think our work brings the Florisbad skull back into the discussion,’ says Gunz. If the skull really did belong to a member of our species, it means that around 300,000 years ago humans had already ‘migrated across the African landscape and were evolving at a continental scale,’ says Gunz. Alternatively, humans may have already spread throughout the continent and regional innovators developed Middle Stone Age tools independently.

### Danish king Bluetooth’s treasure found

A trove found on Germany’s Rugen island in the Baltic may have belonged to the Danish king Harald Gormsson, better known as Harry Bluetooth who brought Christianity to Denmark. He reigned from around AD 958 to 986 over what is now Denmark, northern Germany, southern Sweden and parts of Norway. The find includes braided necklaces, pearls, brooches, a Thor’s hammer, rings and up to 600 chipped coins. The oldest coin is a Damascus dirham dating to 714, while the most recent is a penny dating to 983. Bluetooth fled to Pomerania after a rebellion led by his son Sven Gabelbart. He died in 987. Today’s wireless Bluetooth technology is named after him.

*Agence France-Presse, 16/04/2018*
World's most-spoken languages from ancient Iran?

Hundreds of languages, from English to Hindustani, are all derived from a single ancestral tongue. Now DNA from ancient bones suggests that the people who spoke this ancient language lived somewhere south of the Caucasus mountains.

Languages evolve and diversify. Today, about three billion people speak an Indo-European language, all of which are descended from a single common ancestor. This hypothetical ancient language, Proto-Indo-European (PIE), was spoken somewhere in Eurasia between about 5 500 and 9 000 years ago. There are two leading ideas in this regard: the PIE homeland was either on the western Eurasian steppe north of the Caucasus mountains, or to the south of those mountains, perhaps in the Fertile Crescent. Indo-European languages were ultimately spoken in both regions. This suggests that the ancient inhabitants of the Caucasus mountains, which lie directly between the two proposed homelands, might hold crucial clues.

To investigate, Wolfgang Haak at the Max Planck Institute for the Science of Human History in Jena examined DNA from 45 ancient humans who lived in the Caucasus region between about 32 000 and 6 500 years ago. The ancient DNA suggested that genes – and people – were flowing through the Caucasus mountains 6 500 years ago. According to him, the flow appears to have been largely one-way, from south to north. The people living in the northern region of the Caucasus at that time had genes similar to those previously detected in prehistoric farmers who lived in the north-east Fertile Crescent, in western Iran. What is more, this ‘Iranian farmer’ genetic signature also spread onto the Eurasian steppe. If DNA spread north through the Caucasus mountains and onto the Eurasian steppe 6 500 years ago, it is possible that languages did too.

A PIE homeland south of the Caucasus mountains makes sense, says linguist Paul Heggarty from the Max Planck Institute. He points to studies published since 2015 that suggested the prehistoric people inhabiting the Eurasian steppe had genetic links to ancient farming populations in the Fertile Crescent. ‘But it is much clearer now that the direction of the spread is going from south to north.’ This is largely because earlier DNA studies have indicated that lots of people moved west from the steppe into Europe about 4 800 years ago. This migration may have carried Indo-European languages into parts of Europe at this time.

The problem with this idea is that the timings do not match as linguists think. PIE was spoken significantly earlier than 4 800 years ago. Instead, Heggarty argues that PIE emerged in or near the northern Fertile Crescent and some Indo-European languages were then carried north onto the Eurasian steppe – from where they moved west into Europe 4 800 years ago.

World’s ‘oldest figurative painting’ discovered in Borneo cave

A patchy, weathered painting of a beast daubed on the wall of a limestone cave in Borneo may be the oldest known example of figurative rock art, say researchers who dated the work. Faded and fractured, the reddish-orange image depicts a plump but slender-legged animal, probably a species of wild cattle. The animal is one of a trio of large creatures that adorn a wall in the Lubang Jeriji Saléh cave in the East Kalimantan province of Indonesian Borneo. Above and between the three beasts are hand stencils. The region’s rock art amounting to thousands of paintings in limestone caves has been studied since 1994 when the images were first spotted. ‘It is the oldest figurative cave painting in the world,’ said Maxime Aubert, an archaeologist and geochemist at Griffith University in Queensland, Australia.

Scientists came up with ages for the paintings by dating calcite crusts that often dot the walls of limestone caves. The crusts form when rainwater seeps through the walls. Those underneath a painting give a maximum age for the artwork, while those on top provide a minimum age. Aubert’s team used a technique called uranium series analysis to date the calcite crusts to at least 40 000 years old. But there is room for doubt. Writing in the journal Nature, the researchers concede that the crusts they analysed had formed on top of a heavily weathered part of the animal painting and that pigment analyses could not distinguish the underlying paint from that of a nearby mulberry-coloured hand stencil.

Cave art in East Kalimantan can be grouped into three distinct phases. The oldest includes the reddish-orange hand stencils and animal paintings that mostly appear to depict Bornean banteng, the wild cattle still found on the island. The next phase consists of younger hand stencils, intricate motifs, symbols and depictions of elegant, thread-like people, some wearing elaborate headdresses, some apparently dancing, painted in dark purple or mulberry on the cave walls. In the final phase are more recent paintings of people, boats and geometric designs, all rendered in black. Based on dates gleaned from calcite crusts in the cave and others nearby, Aubert’s team has drawn up a tentative timeline for the progression of art in the region. They believe that rock art, which at first focused on large animal paintings, began between 40 000 and 52 000 years ago and lasted until...
20,000 years ago when the second phase began. ‘At that time humans start depicting the human world,’ said Aubert. Whether the shift was part of the natural evolution of art or came with the arrival of another wave of humans, no-one knows. The final phase of rock art may have begun as recently as 4,000 years ago.

The work suggests that figurative art may have emerged in south-east Asia and Europe at about the same time and remained in step when it shifted from depicting animals to the human world. At Chauvet cave in the Ardeche region of France, the walls are covered with charcoal masterpieces of horses and rhinos that are at least 30,000 years old. Rock art itself goes back much further, with Neanderthals decorating cave walls in Spain long before modern humans reached Europe. Abstract drawing began earlier still: the 73,000-year-old rock bearing an ochre criss-cross design uncovered at Blombos is an example.

Paul Pettitt, professor of palaeolithic archaeology at Durham University, is cautious about the dating in the latest study. ‘Sadly, this work says more about academic competition and the scramble for early dates than it does the emergence of art,’ he said. ‘I welcome the impressive discovery and documentation of a major early art region, but I have considerable reservations about the pertinence of the dated samples to the art beneath. It is not made clear that the oldest minimum ages are clearly and unambiguously related to the figurative art.’

Nature, 7 Nov 2018

Israel uncovers ancient Roman history

Israel archaeologists working on a $27 million project at the Roman-era port city of Caesarea have unveiled new discoveries, including an altar dedicated to Augustus Caesar and a centuries-old mother-of-pearl tablet inscribed with a menorah. The project also aims to preserve the remains of an ancient synagogue and a nearby aqueduct. Archaeologist Peter Gendelman commented that some of the finds are ‘completely changing our understanding of the dynamics of this area’. The site, which also contains ruins from the Byzantine, Muslim and Crusader eras, has been the focus of major excavation work over the decades.

Caesarea was established about 2,030 years ago by the Roman-appointed King Herod, who ruled what was then Judea. The small mother-of-pearl tablet likely dates to the fourth or fifth century AD.