Research Article

THE MAPUNGUBWE GOLD GRAVES REVISITED

MARYNA STEYN

Department of Anatomy, University of Pretoria, Pretoria, 0001, South Africa E-mail: msteyn@medic.up.ac.za
(Received July 2006. Revised November 2006)

ABSTRACT

The Mapungubwe graves were discovered and excavated in the 1930s. Owing to a number of factors, very little information on these graves is available today. In this paper we present and discuss information found in the archives relating to the three gold burials. It is possible that some other graves were also associated with gold. The circumstances under which these graves were excavated are highlighted and previously unpublished photographs are included. It is proposed that at least one of the burials, namely the 'Gold Grave', was a secondary burial, similar to that of the Thulamela male burial. This is based on the arrangement of the bones as well as the positioning of the gold objects found with the grave. The skeletons are destined for reburial.

Keywords: Iron Age, skeletal remains, Mapungubwe, secondary burial, grave goods.

INTRODUCTION

The Mapungubwe complex is one of the best known archaeological sites in South Africa, and has recently been declared a World Heritage Site. It is situated in the Limpopo Province of South Africa, and dates to AD 1000–1300. With the changing political situation in South Africa, the findings at Mapungubwe have gained more significance, and Mapungubwe has, in many ways, become a symbol of African Renaissance. The famous golden rhinoceros, found in one of the graves, is often used as the icon of this flourishing civilization which existed half a millennium before European colonization. It is thus a high-profile archaeological counter to the Apartheid ideology of an empty land, discovered and settled by Europeans (Maggs 2000). The archaeological sites now form part of a National Park, and it is likely that the human remains will be returned to the area in future for reburial.

The history of the discovery of the Mapungubwe graves is well known (Fouché 1937; Meyer 1998; Tiley 2004). Mr ESJ van Graan, a farmer in the district of what is now the Limpopo Province of South Africa, heard about the sacred hill and the legends about it. On 31 December 1932 he and three other adventurers found the hill with the help of an informant, who was persuaded to show them the secret way up to the top of the hill (Fouché 1937; Meyer 1998). On top they found "breastworks of stone" (Fouché 1937:1) as well as great boulders balanced on small stones, ready to be pushed down on intruders. Van Graan junior saw an exposed piece of yellow metal in the wash from a slope, and this was identified as gold. On this day and the following, they searched through the loose soil, and found gold beads, gold bangles, and gold plating which formed part of the now famous golden rhinoceros. They also found a skeleton associated with the gold. The gold was divided amongst the discoverers. Van Graan jr. was a student at the University of Pretoria at the time, and he reported the find to the University of Pretoria. Eventually the gold (or most of it) was retrieved, and excavations initiated.

The first excavations were done by Professors Fouché, Malan, Tromp and Van Riet Lowe (Meyer 1998), under the auspices of the Archaeological Committee of the University of Pretoria. The Committee then appointed Reverend N. Jones to undertake fieldwork during 1934 and 1935. He was assisted by J.F Schofield, who had previous archaeological experience, and P.W. van Tonder who had no previous knowledge of archaeological fieldwork. They were advised by C. Van Riet Lowe. During the summer of 1934–1935, Mr Van Tonder was left on his own at the site "through the unhealthy summer months" (Fouché 1937: 125), and it is during this time that the grave area on Mapungubwe hill was discovered and excavated (Nienaber & Hutten 2006).

The excavations by the untrained Mr Van Tonder in 1934–1935 unfortunately led to the irretrievable loss of much information. Of Van Tonder's excavations in this area, Gardner (1963) remarked: "The ground here had been dug over in haphazard fashion and had not been taken to bedrock". Some unpublished information, mostly from correspondence and unpublished reports, is available in the archival records housed in the Mapungubwe museum at the University of Pretoria. The aim of this paper is to collect all of the available information on the gold burials found at Mapungubwe, and to reassess the existing information regarding the excavation, burial positions and associated objects. Photographs not previously published, but existing in the archives, are included.

THE DISCOVERY AND EXCAVATION OF THE GRAVES

As mentioned above, the first gold grave (Original Gold Grave, M1, University of the Witwatersrand Accession Number A620) was opened by Van Graan and his party and very little information on this grave exists. It is not clear whether the graves were marked in any way, but a Mr R.G. Rorke, a geologist, visited the hill in 1929 or 1930 with some other people from the area (UP/AGL/D/34, Mapungubwe Museum, University of Pretoria). He knew it was "the burial place of the natives". On top of the hill they found "the chief's grave". According to a statement made under oath by Rorke, the grave had four or five stones on it, of about 2 feet 6 inches to 3 feet (76-91 cm) in length or even longer, which were square in shape and possibly polished. The sides of the stones were about $4 \times 2-3$ inches (6-10 cm) thick. "I pulled out one of these stones which was buried horizontally in the ground, which was showing about two feet out of the ground and about one foot six inches was still buried in the ground". The other stones were also standing out of the ground by about two feet six inches (76 cm). Rorke mentioned that they left the graves undisturbed, but Lottering, who accompanied them, dug in a mound which is "due east" from the entrance of the hill, and he found some beautiful pots.

It is generally accepted that three of possibly 27 graves found on the hill were associated with gold (the Original Gold Skeleton, the Sceptre Skeleton and the Gold Skeleton) (Fouché 1937; Meyer 1998). However, in a letter from G.A. Gardner to the Registrar of the University of Pretoria, dated 8 December 1935 (UP/AGL/D/575), he discussed the possibility of a "leakage



FIG. 1. Burial site of the Original Gold Grave (originally published in Fouché 1937).

of gold". He denied that any such losses had occurred, and mentioned that "the only gold found during last season's work was in the form of minute beads and one large one, and this was obtained from Skeleton no. 17, I think it was, and which had previously been excavated by the foreman. He was instructed to hand the beads over to you....". No other mention is made of gold found in this grave, but it thus seems possible that more than three graves actually contained gold. Other documents also have vague references to gold plate and gold objects found in other areas (e.g., UP/AGL/D/174, gold plate found somewhere on the Southern Terrace; UP/AGL/D/874, gold beads found about a mile SE of the camp site).

The excavations on Mapungubwe Hill were conducted on a rather large scale, and it is known that unsieved deposits were dumped with wheelbarrows over the northern side of the hill (Calabrese 2000; Nienaber & Hutten 2006). The second and third gold graves were excavated by the untrained Mr Van Tonder, but it is mentioned in Fouché (1937) that Prof. D.E. Malan, a zoologist from the University of Pretoria, was sent to inspect the remains in situ before they were removed. Prof. Malan completed an undated report on the burials and animal material (UP/AGL/D/806, Fouché 1937). He mentioned that all the graves were shallow (within about 8-10 inches or 20-25 cm from the surface), and the bones badly preserved. Where the bones were badly preserved, they were painted with molten paraffin wax or supported with plaster of paris underneath, before they were lifted out. According to Malan all skeletons were positioned on their sides, with the exception of numbers 10 and 14, the gold graves.

THE ORIGINAL GOLD GRAVE (M1, A620)

Very little information is known about the original gold grave. One photograph (Fig. 1) is available, but this was taken after most of the gold and bones had been removed. The haphazard removal is evident in the photograph, where it can be seen that many of the associated grave goods had been swept to one side. Some pots and bone fragments are visible, but the light coloured objects in the left of the picture have not been

identified. Currently only a few fragments of the calvarium are preserved, and it was not possible to determine the sex. The degree of cranial suture closure indicates a young adult, possibly around 25–45 years (Steyn 1994).

A catalogue of the initial finds on Mapungubwe hill is found in UP/AGL/D/800, and also recorded in Fouché (1937). A list of the objects found with this individual is shown in Table 1. The best known of these are the golden rhinoceros and gold bowl. In a letter by J.C.O. van Graan (UP/AGL/D/12) he stated that when they found the skull of the burial, they also found 'wat ons vermoed om 'n kroon te wees, want dit lê bo teen die kopbeen" (what we thought to be a crown, because it lay above the skull). It is interesting to note that an original plan drawing made in May 1933 of Mapungubwe's summit by Prof. van Riet Lowe, held in the Mapungubwe Museum Archive of the University of Pretoria, clearly depicts what is referred to as a gold headdress ornamentation drawing with this burial, as interpreted by the discoverers. In this drawing, the gold bowl is clearly inverted, and placed on the skull. It is thus conceivable that what has been perceived as a gold bowl, might indeed have been a head adornment (Tiley 2004). This interpretation was further supported by the Senior Metals Conservator of the British Museum, Ms Marilyn Hockey, who examined the gold objects in 1999 and restored the gold 'bowl' in 2000. Ms Hockey stated that, "the small holes in many places around the walls of the 'bowl' may have marked places of attachment for decorative appliqués rather than fixing nails. Some of them are surrounded by a circular wear-mark or impression ± 1 cm in diameter, which may indicate the original presence of some stud or decorative feature."

THE SCEPTRE SKELETON (M5, FIELD NO. 10, A619)

Apparently Malan was present when this grave was excavated, and assisted with its removal (early September 1934). He stated that this body had been buried in the sitting position with the knees probably drawn up to the chest (UP/AGL/D/806; Fouché 1937). It was facing west. The remains of the skull, which comprised only the basal portion, were in

TABLE 1. List of objects found with the three gold graves (Fouché 1937, UP/AGL/D/800).

Object	Original Gold Burial A620, M1	Sceptre Skeleton A619, M5, field no. 10	Gold Burial A 623, M7, field no. 14
Gold objects	Beads (unknown quantity)	Beads (unknown quantity)	More than 100 gold bangles
(Objects found also include strings of gold beads, coming from all three graves, not kept separate)	Gold plate which was around a bowl (?headdress)	Gold beads around pelvis (about 100) Gold sceptre Gold rhino, fragmented	Beads, ±6 pounds in weight (about 12 000)
	Gold plating etc, unknown purpose, some possibly a head rest		Knob of a walking cane (or sceptre?)
	Arm and ankle bands of gold wire		Two gold plates and other gold objects of unknown purpose
	Gold rhinoceros		Possible head of an animal
	Gold "may have been part of walking cane", or part of staff		Gold bangle-like object around femur
	Circular ornament and point		
	Gold tacks		
	The ears of another rhino		
	Gold nodule		
Glass beads*	"Great quantities"	None	Large quantities (26 037), surrounding skeleton
			Cylindrical pile of beads
Metal objects	Arm and leg bands of iron, inter- spersed with gold and glass beads	None mentioned	None mentioned
Excluding gold			
Pots*	Black bowl found under arm	Two flat black bowls, in front of the knees (one was broken in half, the other was inverted)	Several pots found near body
	Small clay bowl		
	Three clay pots		
Other objects	None mentioned	Two pierced cowries	None mentioned

^{*}In Fouché (1937) a description of pots and glass beads are given, and for many the provenance is simply stated as "Mapungubwe grave area".

front of the pelvis. The diverging femora extended forwards, while the right humerus lay across the right femur. The right radius and ulna were "flexed to the humerus on the right side of the femur", and in the angle between the upper arm and forearm was found the "bossed and spirally twisted gold casing of a stick" ('sceptre'). The left arm bones were positioned similarly to those of the right arm. Malan stated that "the impression gained was that the body was buried in a sitting position with the arms folded round the front of the knees, the right hand grasping the 'sceptre'". Some gold beads and two cowries were found around the pelvis and vertebrae, and were presumed to have come from a broken necklace (Table 1).

In UP/AGL/D/806 it is mentioned that the remains are those of a middle aged male who had been about six feet tall. Galloway (in Fouché 1937) also stated that this was an old male. Currently parts of the skull, three broken long bones, a piece of mandible and 11 teeth are preserved (Steyn 1994). Based on the skull and teeth, the individual was assessed to have been a young adult male. Based on long bone lengths (no longer available) recorded by Galloway, his stature was calculated to have been about 173.7 cm (Galloway in Fouché 1937; Lundy & Feldesman 1987). This is above average for an individual from a Bantu-speaking group, although not extremely tall (Tobias 1972).

Two previously unpublished photographs of this grave exist (Fig. 2a,b). In the first picture, Van Tonder is seen with the remains (Fig. 2a). Fig. 2b shows the same, although the picture is of poorer quality but from closer up. The upturned skull, (a) in both figures, can be clearly seen, while (b) and (c) are most likely pots, with pot (b) already removed in Fig. 2b. The gold sceptre (f) can be seen close to an upside down right humerus (d). Other bones in the figures are most probably a fibula (e), femur (g) and clavicle/ulna/radius (h). What is clear from these figures, as well as the haphazard nature of the

excavation, is that the individual was not in a horizontally flexed position. In fact, it is not possible to identify any two articulated bones and it is difficult to imagine any sitting position, where the skeletal parts could end up deposited like this. The upturned right humerus is especially unusual, except if the upper body leaned far forward from a sitting position. In this case, one would have expected the face to be orientated towards the left lower part of the photograph. It remains, however, very difficult to ascertain the burial position from these photographs.

THE GOLD SKELETON (M7, FIELD NO. 14, A623)

According to handwritten side notes on a report of an inspection made by Malan and Van Riet Lowe in December 1934, this skeleton was found and excavated by workers while Van Tonder was in Messina. Van Tonder then removed the gold for safe keeping until Malan and Van Riet Lowe arrived from Pretoria. By this time the remains "simply crumbled when touched", and even the teeth "fell to powder". According to Malan (UP/AGL/D/806; Fouché 1937) this individual was also buried in a sitting position and facing west. The Malan and Van Riet Lowe report (apparently written by Van Riet Lowe), however, stated that he was facing north. "In general the various bones occupied the same position as in the case of skeleton No. 10" (Fouché 1937: 126). This skeleton was buried slightly deeper than the others. Malan felt that the skeleton may have been that of a female, based on the characteristics of the pelvis in situ.

Currently only badly preserved fragments of the skull, long bones, ribs and vertebrae are preserved (Steyn 1994). Osteophytic changes and cranial suture closure indicated an older individual, probably between 40 and 60 years old. The cranial fragments are robust with large mastoids, which may

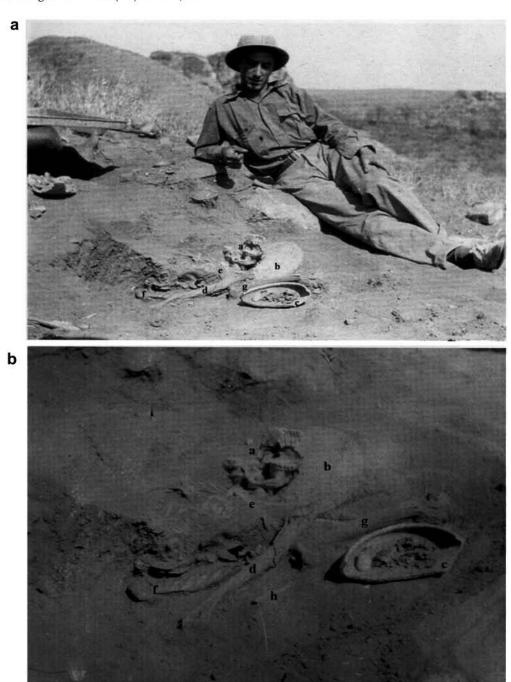


FIG. 2. The Sceptre Skeleton (source: Mapungubwe Museum). The symbols are (a) skull (b) and (c) pots (d) humerus (e) fibula (f) sceptre (g) femur (h) clavicle.

indicate a male, but it is impossible to be certain of this. Galloway (in Fouché 1937) states that these are most probably the remains of a female, based on the amount of jewellery, but he also mentions the prominent inion, broad mastoid process and massive sternomastoid crest. He thought that the skeleton was of a young adult, but found the changes in the lumbar vertebrae surprising in such a young individual. It is not clear why Galloway thought the remains were of a young adult, and based on the changes in the vertebral column it seems more likely to have been an older individual.

A large number and variety of objects were associated with the bones (Table 1). More than 100 bangles of coiled gold wire were found around the legs, as well as pieces of worked gold plating and about 12 000 gold beads. A large number of glass beads were found all around the skeleton, as though it had been buried wearing garments decorated with beads. A cylindrical pile of beads was also found behind the body, which

Malan thought might have originally been a bag full of beads. Woods (2000) also commented on the large volumes of glass beads found on Mapungubwe Hill, and quoted Saitowitz (1996) who had counted 26 037 beads from this burial, 24 808 of which were black. Several pots were also found close to the body.

It is interesting to note that two pictures of this grave were published in Gardner's 1963 book (p. 193), but they are erroneously described and labelled as graves MS 25 and MS 26 respectively. They are, in fact, both photographs of the same grave, but taken from different angles (Fig. 3a,b). In UP/AGL/D/800 a third photograph is shown, but this is a more distant view of Fig. 3b.

In both figures (a) depicts the skull, with a mass of ribs (b) behind it, and the left humerus (c) to the left of the skull. The two femora (d) and (e) are to the right and below the skull respectively, and are diverging slightly. The curvature of femur

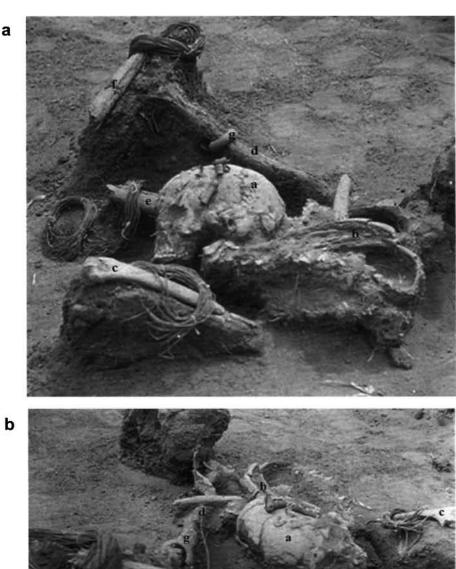




FIG. 3. The Gold Burial (originally published in Gardner 1963 as MS 25 and MS 26). The symbols are (a) skull (b) ribs (c) humerus (d) femur (e) femur (f) tibia (g) gold object.

(d) may indicate that it is upside down. A tibia (f) lies at a right angle to the femur (d). Gold bangles are visible around some of the long bones and also in between the bones. Some gold spirals can be seen on the skull. Once again it is not possible to see any articulated bones, and the upturned left humerus is unusual especially if its position relative to the skull is taken into account. The object denoted by (g) is interesting. This is the gold object seen in Fig. 4, which is about $59 \, \mathrm{mm} \times 21 \, \mathrm{mm}$ in size (S. Tiley pers. comm. 2006). It is impossible that this object would have been able to fit around a fully fleshed upper leg of an individual.

DISCUSSION

The lack of information on these three gold burials is unfortunate. The methodology of archaeology was not well developed at the time, and few archaeologists were available. The conditions in the Limpopo Valley were also difficult, and logistics were a major problem. Physical anthropological analyses at the time focused on typological descriptions, rather than aspects of sex, age and lifestyle. It is clear that the remains were in a somewhat better condition when discovered, but their transportation to the University of the Witwatersrand and, in later years, the University of Pretoria, as well as their many years in

storage, have taken a toll. The bones were treated *in situ* with paraffin wax, and later attempts were made to reconstruct them with plaster of paris. Very few bones thus remain today from these three graves.

Vague references in archival documents suggest that some other graves may also have been associated with gold, but this is impossible to confirm. Many rumours went around of people seen with gold during the time of excavation and, taking the lack of supervision at the site into account, it is probable that not all of the gold was retrieved and accessioned (Tiley 2004).

In summary it seems that the Original Gold Burial was that of a younger adult of uncertain sex, the Sceptre Skeleton (M5) an adult male (possibly a young adult), and the Gold Burial (M7) an older adult of uncertain sex (possibly male). Although in both the cases of M5 and M7 the individuals were described to have been in a sitting position, this cannot be clearly ascertained. In none of these cases could any articulated bones be seen, and especially the arrangement of the bones in M7 is reminiscent of the male burial at Thulamela (Fig. 5), which was a secondary burial (Steyn *et al.* 1998). Both secondary burials and burials in sitting positions are known from ethnographic literature to be associated with high status individuals (Huffman & Murimbika 2003).

In both M7 and the Thulamela male the ribs were stacked to one side, with the long bones arranged on one side of the ribs and the skull in between the long bones. The humerus, although it is the left one and is to the left of the skull, is turned over and this is unusual if the person had been buried in a sitting position. The small size of the gold object on the femur also points to complete decomposition before interment. Another possible scenario is that since the gold was initially removed for safekeeping before the arrival of Malan and Van Riet Lowe, some liberties may have been taken if the gold was then put back on the skeleton for the photograph. On the other hand it is known that Van Tonder had a camera on site, and it is possible that he took the picture shortly after the grave was found.



FIG. 4. Gold object found with A623 (skeleton 14) (photograph: Mapungubwe Museum).

Malan was not a trained anthropologist, and, at the time, no cases of secondary burials were known from South Africa. It is thus possible that he missed the fact that at least M7 was a secondary interment. Unfortunately the condition of the bones and the circumstances of the excavations are restricting factors in the analysis, but the dating of the bones may be informative. Of the Mapungubwe bones, only A621 and A622 were dated (Meyer 1998). If the bones are much older than the occupation of the site, it may be suggestive of a late secondary interment. This, however, would only be the case if the bones were brought from elsewhere and were much older than the rest of the occupation. Had the body been left to decompose, and the bones interred shortly thereafter, the bones may be of the same age as the rest of the site.



FIG. 5. The secondary burial of the Thulamela male (photograph: Marius Loots).

In his descriptions of burial practices of senior Venda chiefs, Stayt (1931) mentioned that the body may be left to decompose before its final burial (for one year). Van Warmelo (1932) also discussed this practice, and mentioned that the corpse is left on a raised platform to decay. However, he states that it may take many years for the final burial to take place. After decomposition, the bones are wrapped in a skin and buried in the sacred grove. In the case of the Thulamela male (Steyn et al. 1998), being of a much earlier date than the female burial, it may be suggested that the remains were brought from elsewhere, possibly for political reasons. In this sense it may thus have been a late secondary (or even tertiary) burial. It is not clear what might have been the case with the Mapungubwe gold burials, but the practice of secondary burial clearly reflects the high status of the individuals.

Another unpublished example of secondary burial from Greefswald (UP145 from Site 2229 AB, Meyer's MAP 26) and dating from the Mapungubwe period, is also known (Nienaber & Steyn 2002). However, this was the skeleton of a young adult individual where there was no evidence to suggest high status. More information on this practice is needed before final conclusions can be made.

It seems unavoidable that the remains of the individuals from Mapungubwe and most probably also K2 will be re-interred in the near future. Although this is a sad loss for science, this will help to balance the injustices of the past. Reinterment of the Mapungubwe Hill individuals where they were found will be difficult, due to the fact that little soil remains on top of the hill and because the few intact deposits cannot be disturbed. Details of this still have to be worked out. Since the remains are going to be reburied and will not be available for further study, the possibility of doing small scale destructive analyses should be considered. DNA analysis to confirm sex, particularly in the case of the Gold Skeleton (M7), will help to solve some of the unanswered questions.

ACKNOWLEDGEMENTS

First and foremost I would like to thank Sian Tiley-Nel, who is the curator of the Mapungubwe Museum. Her intimate knowledge of all the documents makes working in the archives so much easier. She has also given some valuable insights. I am also grateful towards Coen Nienaber for his advice and Louisa Hutten for help with the photographs. To Alan Morris-thanks for stimulating an interest in the archives. I am also grateful

towards the two reviewers who helped to improve this paper. The research of M. Steyn is funded by the NRF.

REFERENCES

Calabrese, J.A. 2000. Metals, ideology and power: the manufacture and control of materialized ideology in the area of the Limpopo–Shashe confluence, c. AD 900 to 1300. South African Archaeological Society Goodwin Series 8: 100–111.

Fouché, J.F. 1937. Mapungubwe, Ancient Bantu Civilization on the Limpopo. Cambridge: Cambridge University Press.

Gardner, G.A. 1963. Mapungubwe: Vol II. Pretoria: J.L. Van Schaik.

Huffman, T. & Murimbika, M. 2003. Shona ethnography and Iron Age burials. *Journal of African Archaeology* 1(2): 237–246.

Lundy, J.K. & Feldesman, M.R. 1987. Revised equations for estimating living stature from the long bones of the South African Negro. South African Journal of Science 83: 54–55.

Maggs, T. 2000. African naissance: an introduction. South African Archaeological Society Goodwin Series 8: 1–3.

Meyer, A. 1998. The Archaeological Sites of Greefswald. Pretoria: University of Pretoria.

Nienaber, W.C. & Steyn, M. 2002. Report on the excavation and analysis of human remains UP145 from site 2229 AB 89 (MAP26), farm Greefswald 37MS, Limpopo Valley National park, Northern Province. Unpublished report. University of Pretoria: Department of Anatomy.

Nienaber, W.C. & Hutten, M. 2006. The 2003 Mapungubwe stabilization project. Business Enterprises at the University of Pretoria. Unpublished report. University of Pretoria: Department of Anatomy.

Saitowitz, S.J. 1996. Glass beads as indicators of contact and trade in southern Africa c. AD 900–1250. Unpublished PhD thesis, University of Cape Town, Cape Town.

Steyn, M. 1994. An assessment of the health status and physical characteristics of the prehistoric population from Mapungubwe. Unpublished PhD thesis, University of the Witwatersrand, Johannesburg.

Steyn, M., Miller, S., Nienaber, W.C. & Loots, M. 1998. Late Iron Age gold burials from Thulamela (Pafuri region, Kruger National Park). South African Archaeological Bulletin 53: 73–85.

Stayt, H. 1931. The Bavenda. Oxford: Oxford University Press.

Tiley, S. 2004. Mapungubwe: South Africa's Crown Jewels. Cape Town: Sunbird Publishing.

Tobias, P.V. 1972. Growth and stature in southern African populations. In: Vorster, D.J.M. (ed.) *Human Biology of Environmental Change*: 96–104. London: International Biological Programme.

Van Warmelo, N.J (ed.). 1932. Contributions towards Venda History, Religion and Tribal Ritual. Pretoria: Department of Native Affairs Ethnological Publications Vol. 3: 134–140.

Woods, M. 2000. Making connections: relationships between international trade and glass beads from the Shashe–Limpopo area. *South African Archaeological Society Goodwin Series* 8: 78–90.