PRELIMINARY REPORT

Tower 167: Phase 2 - Archaeological Excavation

Permit no 80/12/06/002/51, 9/2/253/0027

400KV TABOR-WITKOP TRANSMISSION LINE, LIMPOPO PROVINCE

For: Stefanutti Stocks Power

Hester Roodt

Contact details: Postnet Suite 47
073 222 4867 Private Bag X9700
roodt.hester@gmail.com POLOKWANE 0700

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INTRODUCTION

As mentioned in previous reports (e.g Progress Reports 05 and 12, dd April 18-24 and July 3, 2012), the archaeological site at Tower 167 required mitigation in terms of Section 35 (4) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) which states that *"no person may, without a permit issued by the relevant heritage resources authority, destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or material or any meteorite; or bring onto, or use at an archaeological or palaeontological site any excavation equipment…*".

It was recommended that the position of Tower 167 as well as the access road should be relocated or a Phase 2 should be implemented. Eskom decided that the Phase 2 archaeological assessment should be implemented, upon which the present archaeologist obtained a permit from SAHRA (Permit no **80/12/06/002/51, 9/2/253/0027**). After reconsideration, Eskom decided in July to rather deviate the line, but then changed their decision again. The archaeologist was contacted at the beginning of November to conduct the excavation.

The image below is a rough estimate of the size of the site after the first field inspection of the site in April 2012. Upon the decision to deviate the line, further reconnaissance of the site showed that it is much larger than previously thought, as shown in the second image below.

Figure 01. *The entire plateau between the two hills is a Late Iron Age archaeological site, roughly indicated in the image with a brown circle. One tower of a previous line intrudes on the archaeological remains and had caused damage. The present access road also cuts through the site. Tower 167 will be placed among the stone wall remains. The yellow pin shows the first planned position of the tower which was since moved to a higher position, approximately 50 m in a north-eastern direction.*

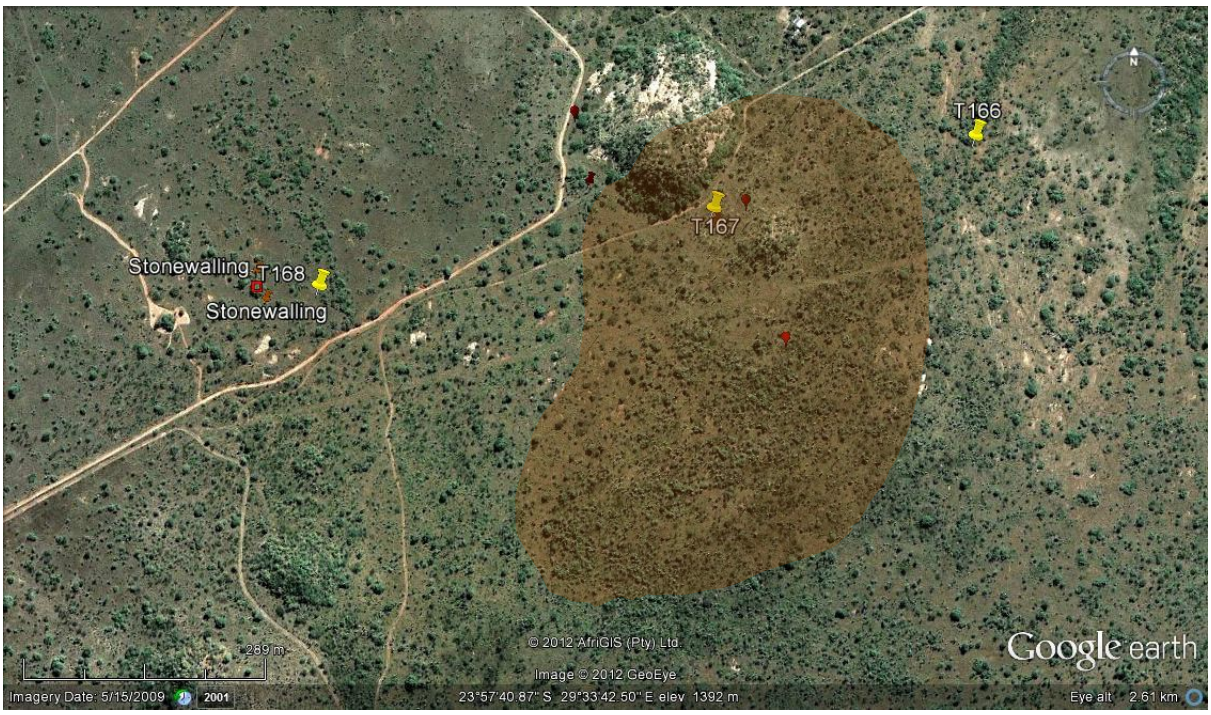

Figure 02. *The full extent of the entire site was not established during the first reconnaissance. A second inspection, however, shows the approximate extent of the site. Since the site contains multi-component occupation, and the rest of the site (not impacted on by the Eskom line) was not properly reconnoitred, the extent is at present not quite clear. Signs of occupation, however, in the form of stone walls, are visible throughout the coloured area. The presence of dense concentrations of* ***Aloe marlothii*** *is also characteristic of old occupation sites.*

ARCHAEOLOGICAL BACKGROUND INFORMATION

In Progress Report 12, dd July 3, 2012, the Ndebele occupation of the Pietersburg plateau was reported. For ease of reference, it is quoted below – with some minor changes - with reference to the site at T167.

The site has a multi-component character, which means that it has been occupied by various peoples at different times. The oldest and predominant occupation in the area occurred during the Late Iron Age (LIA), *circa* AD 1600 - with a second phase which occurred later during historical times after European settlement in the area. These structures were probably those of farm workers.

The layout of the site is typical of the stonewalled Badfontein complex, dating to AD 1600 – 1840. These sites are associated with Ndebele and Koni groups that moved onto the Pietersburg (Polokwane) plateau during this time. Distinction between the two groups is complicated because both groups originated in KwaZulu-Natal and both were influenced by Venda and Sotho in the Eastern Lowveld before moving onto the plateau. Accurate dating supplemented by cultural finds and oral traditions (beyond the scope of this study) may enable the identification of specific groups in future studies.

Characteristic of these sites are the various components or living units, each with its own outer wall and inner livestock enclosures. It is possible that the unit in the neck between the

two hills was most likely that of the chief since it is located on the highest elevation of the complex, is protected by the small hills and has a good viewpoint towards the east and west.

The stone walling belonging to the Iron Age occupation has been robbed by the people who moved into the area during historical times, evidence of their buildings clearly visible on the southern part of the smaller of the two hills. It is, however, difficult at this stage to establish the extent of either occupation, since thick vegetation (grass, shrubs, acacia trees and aloes) cover the majority of the site, which is extremely large. Being down slope from the hills, soil was deposited over many of the remaining foundations, covering it completely.

The purpose of the archaeological excavation was to obtain the necessary data to record a site layout plan, to establish a stratigraphy for the site, and to date it by means of carbon dating and thus narrow down the identity of the inhabitants and occupational period. Although the excavations were very limited, given the short time available, important data was obtained which would otherwise have been lost. In this respect Eskom will greatly contribute towards understanding the unique history of this area.

METHODOLOGY

Standard archaeological principles were employed in the following procedures:

Demarcation. A SSP representative established the maximum width of the area to be affected by the tower foot print, as well as the access road. A five metre strip around the tower foundation was reserved for the assembly and construction activities, while the access road is also five metres wide. Although the archaeological excavations had to be contained within this specified area, it was decided to clear a slightly larger area for purposes of documentation.

Apparently the stringing operation will be conducted on foot and will not impact the site.

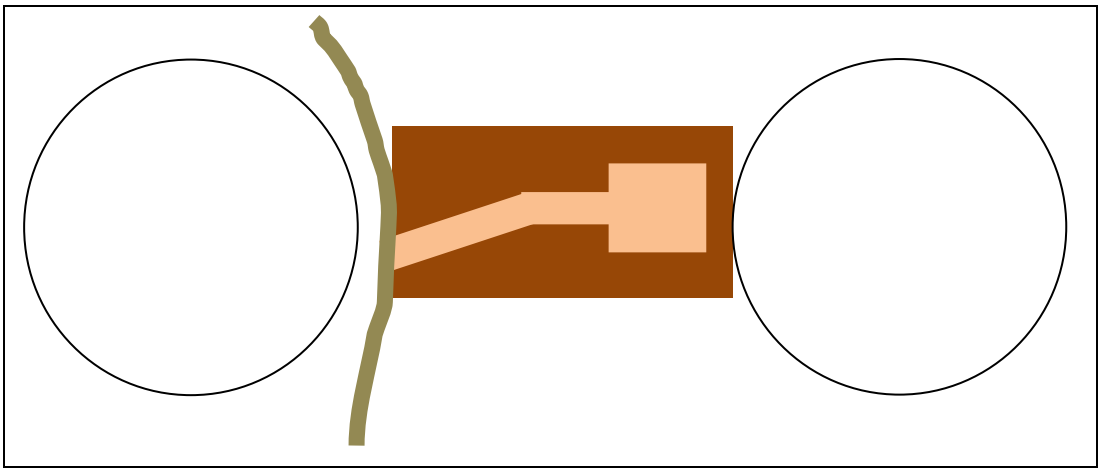

Figure 03. *The drawing (not to scale) showing the SSP/Eskom delineated area in beige colouring. The access road at the foot of the northern most of the two hills is shown in grey, while the area where the stone walls were cleared is shown in ochre.*

Survey. Prior to excavation, the part of the site that will be affected was surveyed by a surveyor made available by SSP and mapped. The wider area (indicated in ochre colouring in the above image) was surveyed, since the structures which fell within the specific area had to be completely represented on the map. The surveyor was called in a second time once all the stone walling had been exposed.

Excavation. Once the archaeological features were surveyed, some areas were selected for excavation and measured out:

- All four legs of the tower: 1 m x 1 m blocks (**TL A**, **TL B**, **TL C** and **TL D**) in the centre of each leg.
- A trench (**Tr 01**) was measured in a north-eastern direction to cover the area between two walls on opposite sides of the tower. This was divided into 1 m x 0.5 m blocks and numbered from **a-j**. There were more units, but not all of them were excavated due to time constraints and other problems which hampered the excavation.
- Two excavation units were placed in the future access route: **R 01** - 1 m x 3 m; and **R 02** - 1 m x 2 m.

All units were excavated in arbitrary layers of 10 cm each. The four test pits (TL A, TL B, TL C and TL D) were all excavated to rock bottom, which was less than 70 cm deep. Owing to time constraints and continuous labour problems, the trench excavations (**Tr 01**) was not excavated to rock bottom, but it was decided that as soon as the soil proved to be sterile for at least 20 cm (two layers), the excavation of the particular unit would cease.

The soil from all the excavation units were sieved with two different mesh sizes (10 mm x 10 mm and 1 mm x 1 mm), and finds were sorted and provisionally labelled and packaged on site.

Figure 04. *The site being surveyed. All visible stone walls and other features (such as rocky outcrops which were incorporated into the walling, and finds such as grinding stones) were mapped.*

Figure 05. *The 1 m x 1 m excavation units which were marked out in each of the tower's legs. These were all completely excavated to rock bottom.*

Figure 06. *The trench which stretched from one stone wall (in the foreground) to another on the opposite side of the tower. Every second block was excavated.*

Figure 07. *One of the two excavation units located in the area which was identified as the access road.*

During excavation it became clear that many of the stone wall foundations were previously not visible due to vegetation cover and soil deposits. These were cleared with picks, shovels and brooms for documentation purposes: the walls were surveyed and photographed. The discovery of the many new walls totally changed the layout of the site, and in many instances proved the multi-component character of the site.

Owing to it being the rainy season, all excavation units were closed with plastic sheeting at the end of the work day in order to keep it dry for the excavation and sieving of the soil the next day. The excavation area was fenced in for the safety of humans and animals.

Figure 08. *Careful excavation of each layer. One excavator per team was handed a measure stick in order to monitor the depth of the excavation.*

Figure 09. *Each layer of each unit was photographically documented; where stratigraphy was observable, it was photographed and drawn.*

Figure 10. *The four legs of the tower were excavated to rock bottom. The bottom 30 cm (in all cases) was sterile. It was then that it was decided to excavate the trench units only until at least 20 cm of the deposit proved to be sterile. This was necessary due to the time constraints.*

Figure 11. *In the excavation units exhibiting distinct and varied stratigraphy, the walls were photo documented and drawn.*

Figure 12. *Two sieves (each supplied by the two different mesh sizes) were utilised in order for the sieving process to progress quicker. One sieve is operated by two people, while the other is easily used by a single person. Each excavation team was responsible for sieving their own excavated material.*

Figure 13. *Once sieved, the material was brought to the sorting area. Provisional sorting of finds is an integral part of the fieldwork. As soon as the finds were sorted, it was labelled and packaged. Final cleaning is done in the laboratory (washing of the pottery sherds and other inorganic finds, dusting of the bones) prior to sending it for analysis. Charcoal samples for radiocarbon dating was directly removed from the excavations and sealed in plastic containers to prevent contamination.*

Figures 14, 15 & 16. *Although the excavations were closed each evening with plastic sheeting, heavy rain prohibited work for two days. The weight of the water actually dragged the plastic, together with the retaining rocks, down into the excavations.*

Figure 17. *Many of the stone walls or parts of it were not visible on the surface. Picks, shovels and brooms were used to clear it before final surveying of the site.*

Documentation. Each layer of the excavation units was photographed. Photo documentation of the site in its entirety, once all the walled units were exposed, was completed on the last day of excavation. A layout plan of the site was drawn, indicating the various features, excavation units and distribution of finds. This will assist in the final interpretation of the site.

All finds are being cleaned (pottery sherds, beads and other finds are being washed and reconstructed where possible; bone material is dusted) prior to being photographed.

Finds Analyses. Charcoal samples will be sent to the Beta Analytic Radiocarbon Dating Services in Miami, Florida, for radiocarbon dating purposes, while the faunal remains will be analysed by a zoo-archaeologist. Pottery, beads and other finds will be dispatched to relevant specialists for analysis.

Final Report. Once all the results have been received (i.e carbon dating from the charcoal samples, faunal and bead analysis), a final report will be submitted, both to SAHRA, SSP / Eskom and the local museum, where the curated material will be stored.

A copy of this preliminary report will be sent to SAHRA. Pending their approval, Eskom can apply for a destruction permit.

LIMITATIONS

The first and most important problem that encumbered the work was the labour provided by SSP.

- The teams invariably arrived late on site which led to a loss in working hours: we left one morning after nobody had arrived on site by 09:30.
- Basic training (e.g correct excavation techniques among the most important) had to be repeated each third day, since some of the team members would be withdrawn to be replaced by novices.

The second problem was experienced owing to the weather. Archaeological excavations are usually conducted during winter time (in the summer rainfall areas) when the soil is dry and there is little danger of rain. Since all the excavated soil has to be sieved, excavations are impeded by rainy weather. On the other hand it was also extremely hot and uncomfortable, even for the hardiest of workers, which resulted in a few nose bleeds and headaches.

A third problem is the vehicular movement. Twice in 10 days a truck was driven onto the archaeological site when delivering material or dropping off the work team. SSP / Eskom had been approached about the problem, but except for verbal warnings to the drivers, no further action was taken.

RECOMMENDATIONS

It is clear that there are definitely more sensitive archaeological remains on the site as well as in the adjacent areas. Even though the archaeologist was reassured that the construction material and vehicles pose no threat to the archaeological site, a great concern still is the storage of the construction material and its assembly on site, as well as vehicular movement.

The archaeologist was present during construction of the tower at T205, where observation proved that large and heavy machinery, like TLB's and cranes, are utilised. The archaeologist's concern is their movement across the site, which is the main purpose for documenting a larger area than prescribed by SSP. It is, however, imperative that the archaeologist be present on site during **all** the construction activities, including the delivery of the material, as well as during the stringing process.

Figure 18 & 19. *The width of the crane is at least five metres. These photographs were taken at T205 with the express purpose to establish its width and the space needed for manoeuvering. In the second photograph it is clear that it needs to deviate from the 5 metre access route in order to turn. If this has to happen at T167, it will mean that it will move onto a part of the site which was supposed to be excluded from the archaeological study.*

Figure 20. *In this image (from T205) it clearly can be seen that the assembled material, awaiting construction, stretches beyond the tower's legs – the tower being similar (self-supporting) to the one to be erected at T167. The area is definitely wider than the 5 metre that was demarcated for the material and assembly at T167.*

Figure 21. *In this image (T205) the two vehicles in the foreground (the white bakkie and the excavator) assist in supporting the various parts of the tower as it is being assembled. This means that the anchors are attached to them; the higher the tower rises, the further into the field they have to move. This effectively means that they will have to move across the archaeological features that were excluded from the study and which were thus not documented. How far exactly they have to move is unclear since the archaeologist was asked by an Eskom representative to leave the site prior to the completion of the tower.*

REFERENCES

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Loubser JHN 1994. *Ndebele Archaeology of the Pietersburg Area*. Navorsinge van die Nasionale Museum, Bloemfontein 10(2).

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Hester Roodt
BA Hons Archaeology - UP; B.Sc Hons Anatomy – UP