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A HERITAGE IMPACT ASSESSMENT STUDY FOR ESKOM'S PROPOSED NEW POWER LINE ON THE FARMS BUFFELFSFONTEIN 829KS AND VLAKSPRUIT 681KS NEAR MARBLE HALL IN THE MPUMALANGA PROVINCE OF SOUTH AFRICA

Dr Julius CC Pistorius
Archaeologist and
Cultural Heritage Management
Consultant
352 Rosemary Street
LYNNWOOD 0081
Pretoria
Tel and fax (012) 348 5668
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EXECUTIVE SUMMARY

Two artefacts dating from the Stone Age; the handle of an iron hoe and potsherds dating from the Iron Age; a cemetery and a single grave dating from the recent past were observed along Part AB and Part CD of the proposed new power line corridor between the connecting pole in the Mogaladi village on Buffelsfontein 829KS and the Themane General Dealer in the Masanteng village on Vlakspruit 681KS. These resources and sensitive remains were mapped (Figure 1).

Eskom's proposed development will not affect these remains as the power line will be located to the south of the cemetery and to the north of the single grave. The isolated and scattered stone tools are out of context as they were observed in some of the furrows where they were washed open. The iron hoe and potsherds may be the remains from Iron Age sites that have disintegrated due to erosion. However, Iron Age sites may occur some distance to the north or to the south from the proposed power line corridor where they will not be affected by the development project.

The construction team must mark the rather inconspicuous single grave with brightly coloured tape in order to prevent accidental damage to this feature.

As no heritage resources of significance or any sensitive remains such as graves and cemeteries will be affected by Eskom's proposed development project there is no reason why Eskom should not continue with the building of the power line.

CONTENTS

1 INTRODUCTION

Eskoms' project area is located on the farms Vlakspruit 681KS and Buffelfsfontein 829KS, north-east of Marble Hall in the Mpumalanga Province of South Africa. This region contains a culturally and historically rich and diversified range of heritage resources. The following ranges of heritage resources have been recorded in the Mpumalanga Province in the past:

- limestone caves and underground dwelling sites of the earliest hominids (ape-man creatures) who lived in Southern Africa 2 to 3 million years ago (near Mokopane or Potgietersrus, just outside the Mpumalanga Province);

- Stone Age sites which may be associated with the San people and which date back hundreds of thousands of years;

- rock engraving sites located along rocky outcrops and dating from the last 20 000 years;

- rock painting sites which date from the last 10 000 years;

- Early Iron Age sites occupied by Bantu-Negroid agriculturists and possibly cattle herders and dating back 1 500 years;

- Late Iron Age sites dating from the last 500 years;

- remains dating from the previous century, when the first Immigrant Boers settled in places such as Botšabelo, Pelgrimsrust, Baberton, Lydenburg, Ohrigstad and Roossenekal (from the 1840's onwards);

- block houses built on mountain ranges by British troops during the Anglo-Boer War (1899-1900);

- old mines and mining activities dating from the latter half of the 19th century and from the early 20th century when the first European mining activities commenced; and

- numerous other formal historical features (the Pelgrimsrust Museum, the reconstructed historical Nederlandsch Zuid-Afrikaansche Spoorweg Maatschappij (NZASM) tunnel near Waterval-Boven, the Middelburg Museum with a Ndebele *umuzi* as one of its satellite museums, the Mapoch's Caves near Roossenekal, etc.).

Cultural resources in the Mpumalanga Province therefore constitute a rich heritage that represents a record of most groups living in South Africa today.

2 AIMS WITH THIS REPORT

Eskom intends to establish a 21kV power line, approximately 4,229km long between a connection pole in the town of Mogaladi (in the east) to the Temane General Dealer located in the Masanteng town on the farm Vlakspruit 681KS (in the west). Eskom's study area is located approximately 20 km to the north-east of Marble Hall in the Mpumalanga Province of South Africa (1: 50 000 topographical maps 2429CD Marble Hall; 2429DA Ga Masemola and 2429DC Phokwane).

In order to comply with legislation, Eskom requires knowledge of the presence, relevance and the significance of any significant heritage resources or sensitive remains (graves and graveyards) that may occur in or near a critical area (the new power line corridor). Eskom needs this information in order to take pro-active measures with regard to any heritage resources or sensitive remains that may be affected, damaged or destroyed by the proposed new development. Eskom therefore commissioned me to undertake a heritage impact assessment study of the critical area (the power line corridor) with the aim:

- to establish whether any heritage resources do occur in or near the proposed new power line corridor and, if so, what the nature, the extent and the significance of these remains are;

- to determine whether such remains will be affected by the building of the new power line; and

- to evaluate what appropriate actions could be taken to reduce the impact of the development on such remains.

3 THE STUDY AREA, METHODOLOGY AND TERMINOLOGY

3.1 The study area

Eskom's proposed new power line is to be established on the farms Vlakspruit 681KS and Buffelfsfontein 829KS, located approximately 20 km to the north-east of Marble Hall in the Mpumalanga Province of South Africa (see Figure 1 and the 1:50 000 topographical maps 2429CD Marble Hall; 2429DA Ga Masemola and 2429DC Phokwane). The proposed new power line will be established between the towns of Mogaladi on the farm Buffelsfontein 829KS in the east and the town of Masanteng on the farm Vlakspruit 681KS in the west. The study area is located in the Monsterlus area with prominent landmarks the Arabiedam and the Olifants River to the west.

3.2 Brief historical context

Marble Hall was established in the late 19th century close to the Moses River. It was thought that the Moses River was in fact the origin of the Nile River. The limestone and marble mine of Marble Hall was once a peculiar depression known as 'Marmerhol', or Marble Hall. The limestone was mined by Visagie and Taylor but transport difficulties made the venture uneconomic. In 1929 the Marble Hall Lime Company was formed to work Marmerhol. A railway line was built to the mine in 1936.

Numerous clans originating from the Iron Age occupied the Sekhukhuneland area to the east of Groblersdal and Marble Hall. Kôpa and Ndebele clans also occupied Maleoskop and the region to the south of Eskom's study area from the earliest times.

3.3 Method

The cultural heritage impact assessment study was limited to a brief scoping of appropriate literature to provide the historical context outlined above (see Bibliography Part 8).

The heritage impact assessment was conducted on foot.

As no heritage resources were discovered, no locations for sites, graves, structures or any other features have been given.

3.4 Assumptions and limitations

It must be kept in mind that cultural heritage surveys may not detect all heritage resources in any given study area. While certain remains may simply be missed during surveys (observations), others may occur below the surface of the earth and may only be exposed once development (such as the digging of holes for pylons) commences.

3.5 Terminology

The cultural heritage assessment referred to in the title of this report includes a survey of heritage resources as outlined in the National Heritage Resources Act (Act No 25 of 1999).

Cultural heritage (or cultural resources) includes all human-made phenomena and intangible products that are the result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyles of the people or groups of people of South Africa.

The term 'pre-historic' generally refers to the time before any historical documents were written or any written language developed in a particular area

or region of the world. The historical period and historical remains refer, for the study area, to the first appearance or use of 'modern' Western writing brought to Groblersdal and Marble Hall by the first Colonists who settled in this area after 1850. The historical period for Eskom's study area therefore dates from c. 1840.

The term 'relatively recent past' refers to the 20th century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may, in the near future, qualify as heritage resources.

It is not always possible, based on observations alone, to distinguish clearly between archaeological remains and historical remains, or between historical remains and remains from the relatively recent past. Although certain criteria may help to make this distinction possible, these criteria are not always present, or, when they are present, they are not always clear enough to interpret with great accuracy. Criteria such as square floor plans (a historical feature) may serve as a guideline. However, circular and square floors may occur together on the same site.

The term 'sensitive remains' is sometimes used to distinguish graves and cemeteries as well as ideologically significant features such as holy mountains, initiation sites or other sacred places. Graves in particular are not necessarily heritage resources if they date from the recent past and do not have tombstones that are older than sixty years.

The term 'Stone Age' refers to the prehistoric past, although Late Stone Age peoples lived in the area well into the historical period. The Stone Age is divided into an Earlier Stone Age (3 million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years to 40 000 years ago) and the Late Stone Age (40 000 years to 200 years ago).

The term 'Late Iron Age' refers to the period between the 17th century and the 19th century and can therefore include the historical period.

The term 'study area' or 'project area' refers to the area where Eskom wants to focus its development activities.

The 'critical areas' refer to the areas (or corridors) that will be affected by Eskom's proposed development project.

The 'peripheral area' refers to the area where Eskom does not intend to focus its development activities, but which are in close proximity to the critical areas (or corridors).

Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types of heritage resources in any given area.

Phase II studies include in-depth cultural heritage studies such archaeological mapping and excavating work, the documenting of rock art sites, engraving sites or historical dwellings and other architectural features and structures, the sampling of archaeological sites or shipwrecks, etc. Phase II work requires the co-operation and approval of SAHRA.

Figure 1: The Eskom study area is situated on the farms Buffelfsfontein 829KS and Vlakspruit 681KS, north-east of the town of Marble Hall in the Mpumalanga Province of South Africa.

A B C D E F G H I J K L M N O P

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4 THE HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED NEW POWER LINE CORRIDOR

The proposed new power line corridor between the connecting pole on Buffelsfontein 829KS in the east and the Themane General Dealer on Vlakspruit 6981KS in the west was divided into the following stretches that were subjected to a heritage impact assessment. The proposed new power line corridor is 4,229km long and has six turning points. The proposed new power line corridor was divided into the following parts (Figure 1):

- Part AB runs from the connecting pole on the western boundary of the Mogaladi village to the 1st turning point, approximately 360m further to the west.

- Part CD runs from the 1st turning point westwards crosses several shallow furrows, a dry riverbed and a dirt road. Part CD then runs from the dirt road across veld and across a two-track (dirt) road until it reaches the 2nd turning point on the eastern perimeter of the Masanteng village. This part of the proposed new power line is approximately 1,8km long.

- Part EF runs from the 2nd turning point on the western perimeter of the Masanteng village to the 6th turning point that leads into the Themane General Dealer in the Masanteng village. Turning points 3, 4, 5 and 6 are therefore all located in the Masanteng village and can be divided into the stretch between the 2nd and 3rd turning point, the stretch between the 3rd and 4th turning point, the stretch between the 4th and the 5th turning point and the stretch between the 5th and the 6th turning point.

The heritage impact assessment of these various parts of the proposed new power line revealed the following heritage resources and sensitive remains:

Part AB

Part AB runs from the connecting pole on the western boundary of Mogaladi village to the 1st turning point, approximately 800m further to the west near a small granite protrusion. Part AB runs across veld with low shrubbery, passes a cemetery and then the low granite kopje where the 1st turning point is located (Figure 2). The soil in this part as well as the following part of the proposed new power line corridor consists of a granular quartzite.

Heritage resources

Iron Age remains

Potsherds were observed close to the cemetery. These potsherds seem to be the remains of old pots (dating from the Iron Age) not necessarily to be associated with any of the intact or broken pots occurring on the graves in the cemetery. However, no remains of Iron Age sites were observed close to the cemetery.

The cemetery

The cemetery is located more than 20m to the north of the power line corridor. The cemetery is modern and still in use (Figure 2).

The power line corridor will not affect the Iron Age remains or the cemetery.

Figure 2. The cemetery located to the north of Part AB of the proposed new power line corridor. This cemetery will not be affected when the power line is built (below).

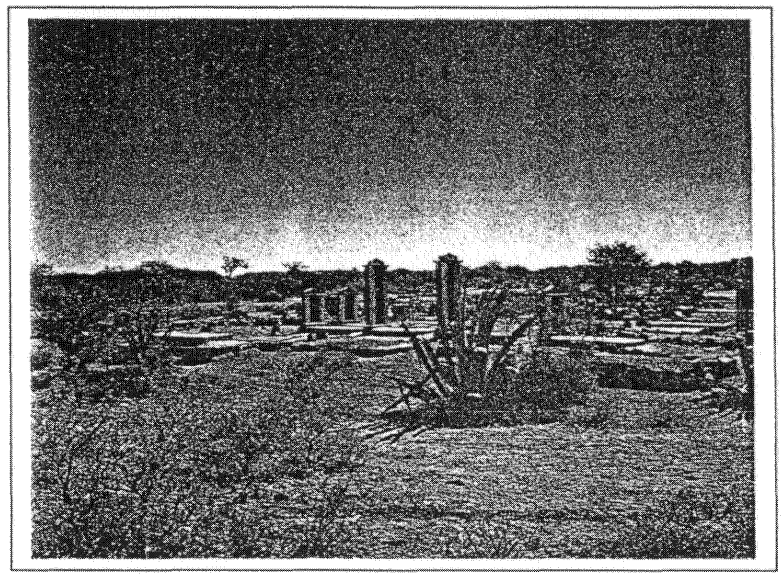
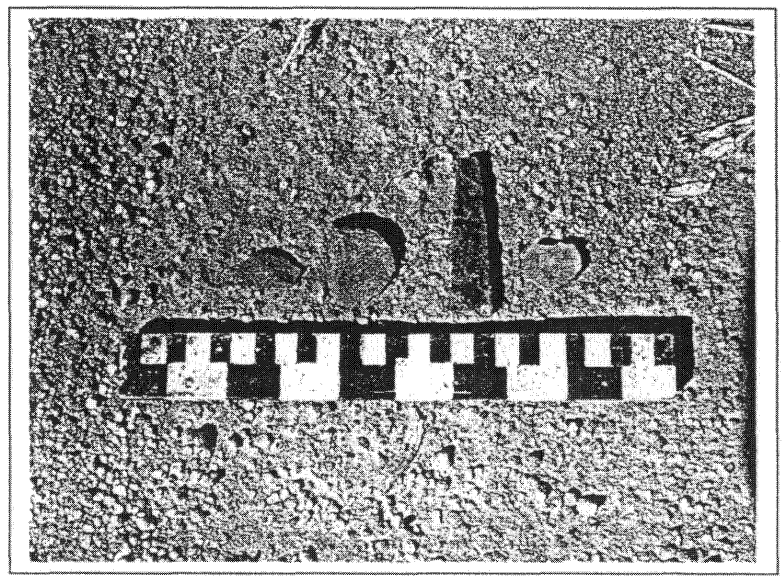


Figure 3. Stone tools, the handle of an iron hoe and a potsherd dating from the Stone Age and the Iron Age are located along Part BC of the proposed new power line corridor. These remains are insignificant and will not be negatively affected by Eskom's proposed development project (below).



Part CD

Part CD runs from the 1st turning point to the west, crosses several shallow furrows, a dry river bed and a dirt road before running across a piece of thick forested veld followed by open veld in which a single grave is located. Part CD then crosses a two-track dirt road and then a piece of open veld with few trees but with substantial stands of Aloe trees until it reaches the 3rd turning point on the eastern perimeter of the Masanteng village. This part of the proposed new power line is approximately 1,8 km long. The soil initially consists of a granular quartzite followed by more sandy soil closer to the village.

Heritage resources

Stone Age and Iron Age remains

Two stone tools, a piece of an iron hoe's handle as well as several potsherds were observed close to the power line corridor (Figure 3). It seems as if Iron Age people may have occupied the area in the past. However, no remains of any archaeological sites were observed. Iron Age remains may be located some distance on opposite sides of the power line corridor.

The shallow furrows, crossed by the power line attest to the eroded nature of the area. Archaeological sites or other remains can hardly be preserved if it is located in the path of running water which ran from the higher northerly part of the study area. The gravel quartzite is also not conducive to the preservation of any archaeological remains. (These soils cannot be used to build structures such as dwellings/huts due to their granular nature).

5 POSSIBLE IMPACT OF THE PROPOSED NEW POWER LINE ON HERITAGE RESOURCES AND SENSITIVE REMAINS

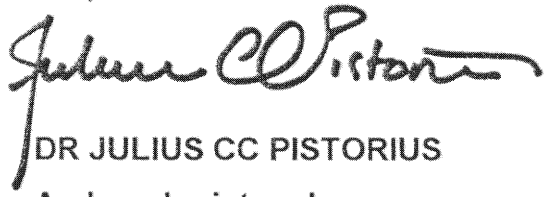
Two artefacts dating from the Stone Age; the handle of an iron hoe and potsherds dating from the Iron Age; a cemetery and a single grave dating from the recent past were observed along Part AB and Part CD of the proposed new power line corridor between the connecting pole in the Mogaladi village on Buffelsfontein 829KS and the Themane General Dealer in the Masanteng village on Vlakspruit 681KS. These resources and sensitive remains were mapped (Figure 1).

Eskom's proposed development will not affect these remains as the power line will be located to the south of the cemetery and to the north of the single grave. The isolated and scattered stone tools are out of context as they were observed in some of the furrows where they were washed open. The iron hoe and potsherds may be the remains from Iron Age sites that have disintegrated due to erosion. However, Iron Age sites may occur some distance to the north or to the south from the proposed power line corridor where they will not be affected by the development project.

6 CONCLUSION

The construction team must mark the rather inconspicuous single grave with brightly coloured tape in order to prevent accidental damage to this feature.

As no heritage resources of significance or any sensitive remains such as graves and cemeteries will be affected by Eskom's proposed development project there is no reason why Eskom should not continue with the building of the power line.



DR JULIUS CC PISTORIUS
Archaeologist and
Cultural Heritage Management Consultant

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