

# **Archaeological Survey for the Emmaus-Driel Powerline**

**For Eskom**

**By**

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# **THE ARCHAEOLOGICAL SURVEY OF THE EMMAUS-DRIEL**

## **POWERLINE AND SUBSTATION**

### **INTRODUCTION**

The archaeological survey of the Emmaus-Driel transmission line and substation was undertaken on the 23 October 2001. The transmission line is of the single wooden pole 33 kV type, with the occasional H-frame structure. A total of six archaeological sites were recorded along the route and only one site may be directly affected by the wooden poles. These sites consist of stone-walled features representing homesteads and cattle pens. The sites probably date from the Historical Period (AD1829) to the more recent past.

A main problem in dealing with a stone walled features in this area is to determine the age of the site. That is, little diagnostic material is visible to accurately date the site. The recorded sites may date between the Historical Period and the 20<sup>th</sup> century. I believe that it will be time consuming to determine the more precise date for such sites, and I recommend that a cautionary approach is taken. This cautionary approach is to regard all of these sites as potential archaeological sites (i.e. over 100 years in age) and to cause minimal if any impact to these sites. The alternative would be to undertake archaeological excavations to locate artefacts that may yield a more precise date; to undertake a Deeds Office search to determine the time of occupation of the site, and/or; to undertake interviews with people on the farm to establish an oral history of the sites.

### **METHODOLOGY**

The Natal Museum archaeology database was scanned for known archaeological sites within the affected area. No sites have been previously recorded along this specific route.

Small scatters of artefacts are usually not regarded as a site. All sites are grouped according to low, medium and high significance. Sites of low significance have no diagnostic artefacts. Sites of medium significance have diagnostic artefacts and these are sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of medium significance may also have test-pit excavations. Sites of high significance are excavated and/or extensively sampled. The sites that are extensively sampled have high research potential, yet poor preservation of features. Some sites may be of such high significance that no impact should occur.

Significance is generally determined by several factors. Each site is also assessed in terms of other sites in the specific region and to the broader regional context.

### **Defining significance**

Archaeological sites vary according to significance and different criteria relate to each type of site. However, several criteria allow for a general significance assessment of archaeological sites.

These criteria are:

**1. State of preservation of:**

- 1.1. Organic remains:
  - 1.1.1. Faunal
  - 1.1.2. Botanical
- 1.2. Presence of a cultural deposit
- 1.3. Features:
  - 1.3.1. Ash Features
  - 1.3.2. Graves
  - 1.3.3. Middens
  - 1.3.4. Cattle pens
  - 1.3.5. Houses/Structures

**2. Spatial arrangements:**

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

**3. Features of the site:**

- 3.1. Are there any unusual, unique or rare artefacts at the site?
- 3.2. Is it a type-site?
- 3.3. Does the site have a good example of a specific time period, feature, or artefact?

**4. Research:**

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

**5. Inter- and intra-site variability**

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and/or artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

## **6. Archaeological Experience:**

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

## **7. Educational:**

7.1. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

7.2. Educational value is in terms of display at a Heritage institution or local site museum.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. These test-pit excavations may require further excavations if the site is of high significance. Sites may be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

## **ARCHAEOLOGICAL SITES**

The archaeological sites are summarised in Table 1.

### **RTV1**

This site is located near the pole #38. The site is located along a stone ridge and extends into the current agricultural land. It is  $\pm 200$  m x 40 m in size. Three main areas of past human occupation were observed along the ridge. These consisted of clusters of stone walling, terracing, domestic areas, and large cattle pens. Several pottery sherds, upper grinding stones and possible human graves were also recorded.

The pottery is mainly an orange colour and undecorated. The stone-walled circles are of two main types. The larger stone-walled circles are  $\pm 10$  m in diameter and appear to have been excavated into the ground. The stone-walling appears to consist of a double row of larger rocks with a 'rubble' infill. These features were located in front of the ridge and on the border of the agricultural field, suggesting that these four are the remains of cattle pens. The second type of walling occurs only along the back (or along the stone ridge) of the site. They are small structures  $\pm 1$  m in diameter and 0.5 m high. They are made from large rocks placed on top of each other. These were probably used as pens for sheep/goats. The stone terracing consists of a flattened and cleared area with a stone barrier in front of it. These areas are probably the domestic areas. Four possible human graves were observed. One of the graves had a metal cross on it, suggesting that it may be more recent in age. One of the possible graves was located in the main cattle pen. Other

small stone features were observed at the site and these may either be human graves or the remains of granary bins.

The site appears to consist of three separate occupations from different periods, dating from the Historical Period to the more recent past.

Significance: The site is of medium archaeological significance due to its spatial component and human graves.

Mitigation. The site will not be directly affected by the transmission line, as the wooden poles will be placed below the main site and at the top of the ridge. The transmission line should be walked/rolled from each pole. No further mitigation is required, however, the construction team should be well informed regarding the settlement and not disturb any of the features.

### **RTV2**

This site is located  $\pm 350$  m from RTV1, towards Driel Dam, near pole #36. The site consists of three large stone-walled features  $\pm 10$  m in diameter, and three stone features. The stone-walled features are similar to those located at RTV1. The stone features are either human graves or the remains of granary bins.

Significance: The site is of medium archaeological significance due to the possible human graves and spatial pattern.

Mitigation. The site will not be directly affected by the transmission line, as the wooden pole will be placed away from the site. The transmission line should be walked/rolled from each pole. No further mitigation is required, however, the construction team should be well informed regarding the settlement and not disturb any of the features.

### **RTV3**

This site is located at pole #35. The site consists of various stone walling and a small daga feature (possibly a hearth). The stone walling includes a large outer wall with two secondary walls inside it. Smaller stone features occur besides the primary wall and these are  $\pm 1$  m in diameter. Some of these smaller features appear to be goat/sheep pens, while two other features appear to be piles of stone from field clearance<sup>1</sup>.

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<sup>1</sup> The site occurs nearby the agricultural field and these latter piles of stone may be from this field. They have no basal structure and differ in appearance from the other features.

Outside of the main walling is a small stone feature  $\pm 1$  m in diameter. Inside of this feature is a *daga* feature,  $\pm 10$  cm thick and smoothed on the surface. This feature is probably the base of a granary bin or fire place, as it is too small to be a hut floor.

The site probably dates to the Historical Period, although a more recent date may be possible.

Significance: The site is of medium archaeological significance. The site has a well preserved granary bin or fire place and a series of walling that appears to differ from the other sites.

Mitigation: One pole may be placed on the remains of outer secondary walling. On-site discussions with the surveyor occurred and the pole could not be moved downslope as there were height restrictions, and the pole could not be moved further upslope as it would then occur in the agricultural field. The pole, in its current position will thus affect the part of the site.

Three mitigation options exist for this site:

1. The pole should be moved – 1 m upslope would clear it from the walling although this may add complications to the height and angles of the pole and/or line.
2. The pole may be left in its current location, and an archaeologist should be on site during the construction phase of the site. This would ensure that no feature or material is damaged.
3. The whole site should be mapped prior to construction and the site may be damaged. This may be a preferable option as the construction of the line may inadvertently damage part of the site as there is a very narrow space between the fencing, the site and the track.

I would recommend that if Option 1 is not possible then Option 3 is taken – Option 2 may still result in inadvertent damage to the site. The transmission line should be walked/rolled from each pole. The construction team should be well informed regarding the settlement and not disturb any of the features. ESKOM will be required to obtain a permit if the pole is not moved.

Subsequent to the survey, the surveyor and I have discussed the position of the pole. We have agreed that the pole could be placed  $\pm 1$ m upslope of the walling and thus avoid the site.

#### **RTV4**

This site is located at pole #34. The site is located on a flat area just above the river. The site consists of several upper grinding stones, a lower grinding stone, fragments of petrified trees, and various types of stone walling. The larger stone walling consists of three cattle pens  $\pm 10$  m in diameter, smaller stone circles  $\pm 1$ m in diameter, and a sheep/goat pen  $\pm 3$ m in diameter.

The pole will be placed between two of the larger cattle pens and will thus not affect the site.

Significance: The site is of low significance

Mitigation: No further mitigation will be required. The transmission line should be walked/rolled from each pole. The construction team should be well informed regarding the settlement and not disturb any of the features. ESKOM will be required to obtain a permit if the pole is not moved.

### **RTV5**

This site is located between poles 41 and 42. The site consists of two large stone-walled settlements nearby each other. Both are similar to the previous sites and also have secondary walling, graves and grinding stones. Both sites have potential archaeological deposit and spatial parameters.

The sites will not be affected by the poles.

Significance: The site is of medium significance.

Mitigation: No further mitigation would be required for this site as the wooden poles will not be placed directly on either site. However, the transmission line should be walked/rolled from each pole. The construction team should be well informed regarding the settlement and not disturb any of the features.

### **RTV6**

This site is situated between poles 50 and 51. The site consists of a large stone kraal ( $\pm 10$  m in diameter) and  $\pm 10$  houses with stone foundations bases. The site may date to the 20<sup>th</sup> century.

The line will pass over the site.

Significance: The site is of low archaeological significance.

Mitigation: No further mitigation would be required. However, the transmission line should be walked/rolled from each pole. The construction team should be well informed regarding the settlement and not disturb any of the features.

## CONCLUSION

The Driel-Emmaus transmission line was surveyed for potential archaeological sites. A total of six archaeological sites were recorded during the course of the survey. Most of these sites will not be directly affected by the wooden poles as they have been placed away from the main stone walling. Indirect damage may be caused by the construction team. The transmission line should be walked/rolled from each pole in areas where the sites occurred. No mitigation would be required, however, the construction team should be made fully aware of the sites, and are responsible for any damage that may occur to these sites.

Only one site may be damaged, and this would require a permit from KwaZulu-Natal Heritage. If the pole is moved then no mitigation nor a permit is required.