

**MONITORING FOR POSSIBLE HUMAN REMAINS  
FOR THE KWAMBONAMBI OFFRAMP UPGRADE**

**FOR JANET EDMONDS CC**

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## INTRODUCTION

Umlando cc was contracted by Janet Edmonds Consulting cc. to undertake a Heritage Impact Assessment of the proposed Kwambonambi interchange upgrade. Kwambonambi is located ~20km north of Richards Bay, KwaZulu Natal (fig.'s 1 - 2). The area is located on a small hill leading to a wetland. The area has been generally disturbed with the construction of the N2 and the Kwambonambi access road.

The interchange was surveyed in 2009 by Umlando (see Appendix A), where it was noted that one sensitive area existed. This area was a relatively old *Euphorbia ingens* that is normally associated with graves in Zulu society. The management plan was that the area should be monitored for potential human remains underneath the *Euphorbia ingens* during construction activity. If human remains were observed, then the excavations would cease, until the appropriate permits were obtained.

### KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

1) **“33. General protection: Structures.—**

- a) No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- b) Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.

2) The Council may, by notice in the *Gazette*, exempt—

- (a) a defined geographical area; or
- b) defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage

- resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- 3) A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.
- 4) **34. General protection: Graves of victims of conflict.**—No person may damage, alter, exhume, or remove from its original position—
- (a) the grave of a victim of conflict;
  - (b) a cemetery made up of such graves; or
  - (c) any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- 5) **35. General protection: Traditional burial places.**—
- a) No grave—
  - b) not otherwise protected by this Act; and
  - c) not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.
- (1) The Council may only issue written approval once the Council is satisfied that—
- (a) the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
  - (b) the applicant and the relevant communities or individuals have reached agreement regarding the grave.
  - (c) **36. General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.**—
  - d) No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact

- site without the prior written approval of the Council having been obtained on written application to the Council.
- (1) Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
  - (2) The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
  - (3) No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
  - (4) No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
  - (5) The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.” (KZN Heritage Act of 2008)

## METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the databases. These databases contain most of the known heritage sites in KwaZulu-Natal, and known memorials and other protected sites, battlefields and cemeteries in southern Africa. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be 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 high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

### **Defining significance**

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating 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. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
  - 1.5.1. Ash Features
  - 1.5.2. Graves
  - 1.5.3. Middens
  - 1.5.4. Cattle byres
  - 1.5.5. Bedding and ash complexes

**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 or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very 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 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. Does the site have the potential to be used as an educational instrument?

7.2. Does the site have the potential to become a tourist attraction?

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

**8. Other Heritage Significance:**

8.1. Palaeontological sites

8.2. Historical buildings

8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites

8.4. Graves and/or community cemeteries

8.5. Living Heritage Sites

8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

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. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also 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.



FIG. 1 GENERAL LOCATION OF THE KWAMBONAMBI ROAD UPGRADE

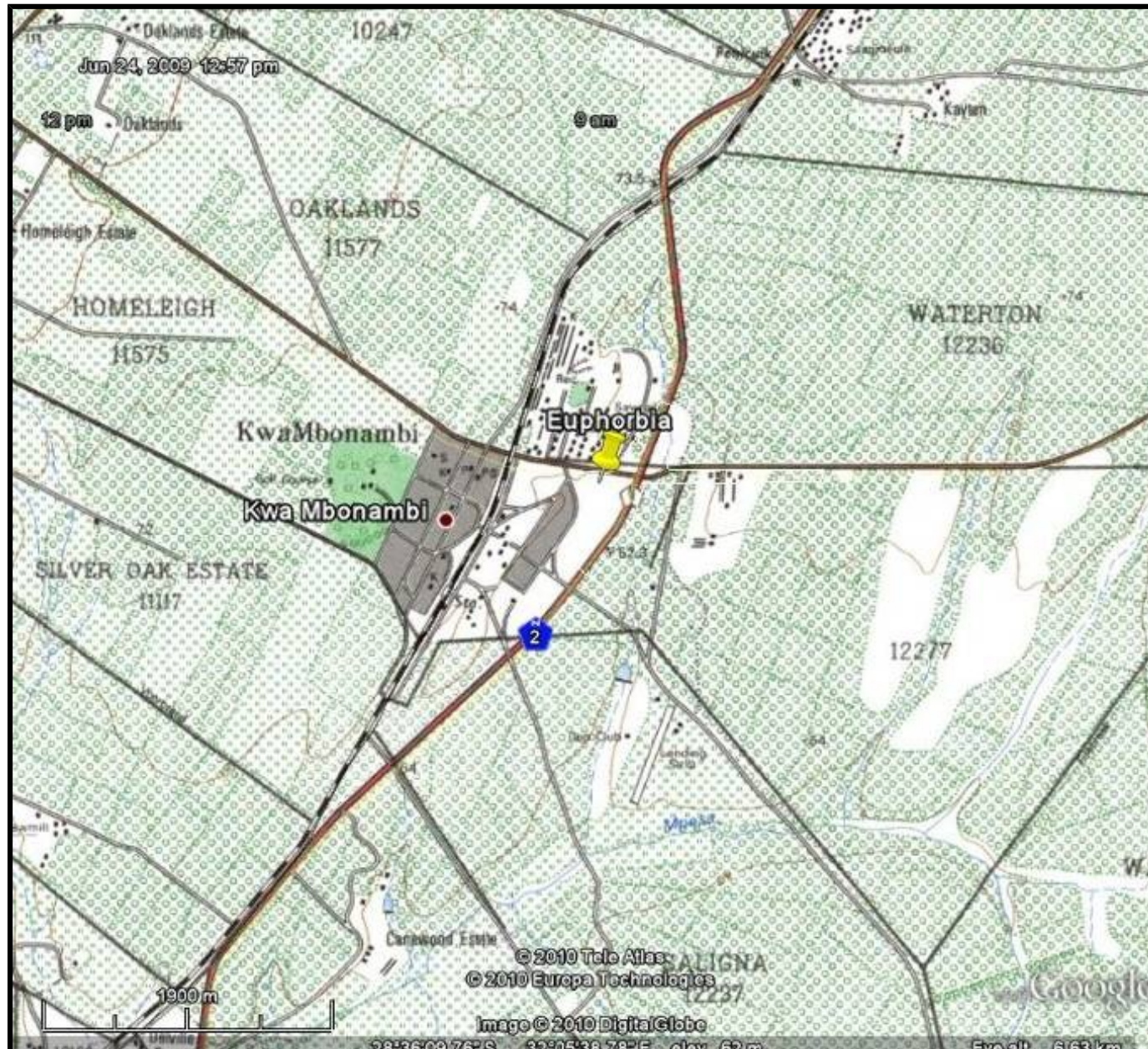
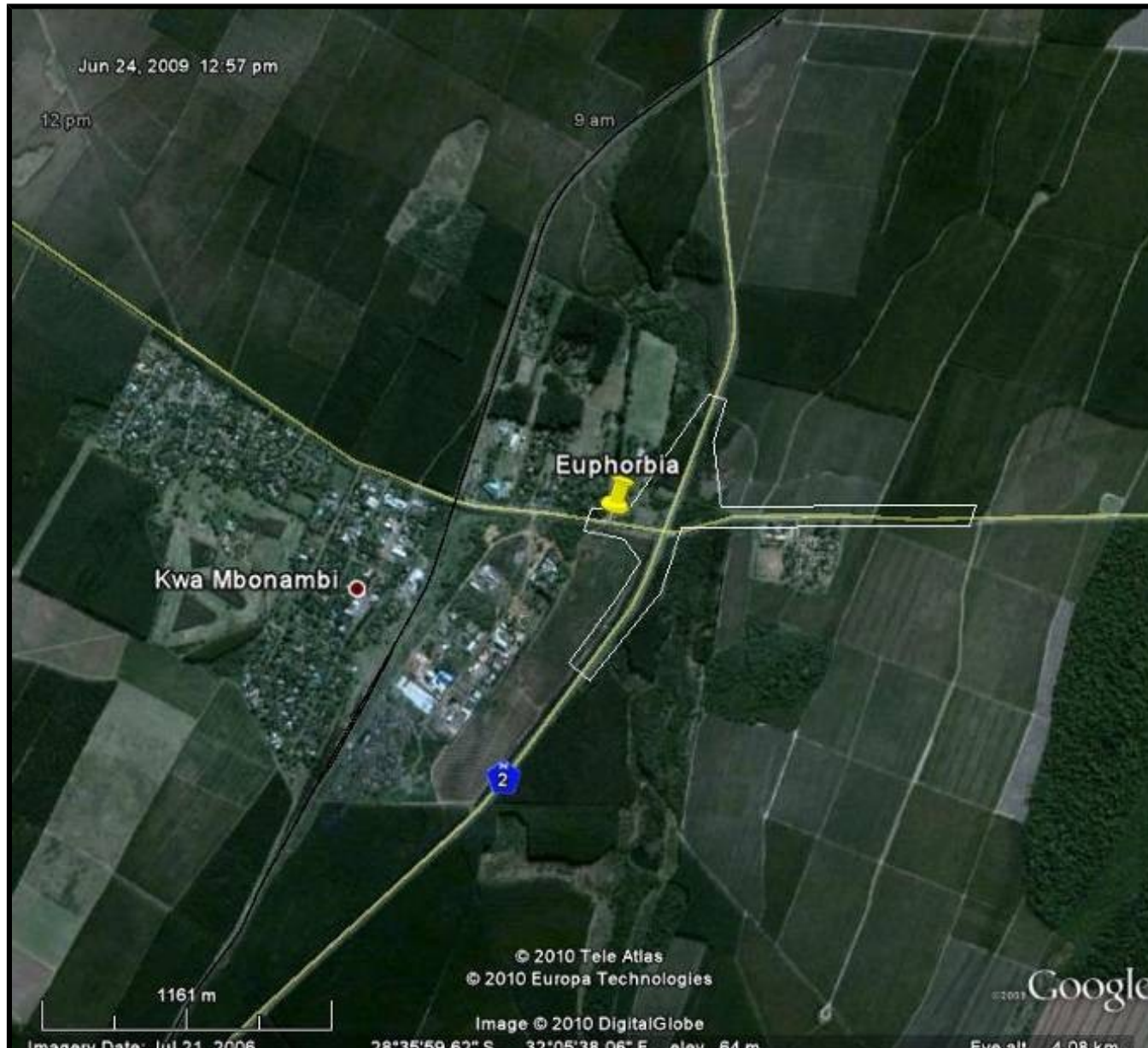




FIG. 2: AERIAL OVERVIEW OF THE KWAMBONAMBI ROAD UPGRADE



## RESULTS

The general area has been significantly disturbed by roads, sewer pipes and fibre optic cables. These developments tend to occur away from the Euphorbia. The trees along the side of the road also suggest that they were planted some time ago.

I did a historical desktop study regarding the general area. I used the 1943 topographical (fig. 3) and 1937 aerial photograph (fig. 4) to determine if people were living in the area in the more recent past. Both historical maps indicate that there were no houses in the immediate vicinity of the Euphorbia tree. The aerial photograph also suggests that the area of the Euphorbia tree was dense bush. The Euphorbia tree (fig. 5) thus probably post-dates 1937.

The excavations underneath the Euphorbia did not yield any human remains or suggestions of a burial pit. The soil was a uniform red-brown immediately below the main root system, and continued with this colour for ~2m below surface. The excavation trench was ~4m long.

I can conclude that there were no human remains underneath the Euphorbia tree. There is no further reason to monitor the site.

FIG. 3: 1943 TOPOGRAPHICAL MAP OF THE KWAMBONAMBI ROAD

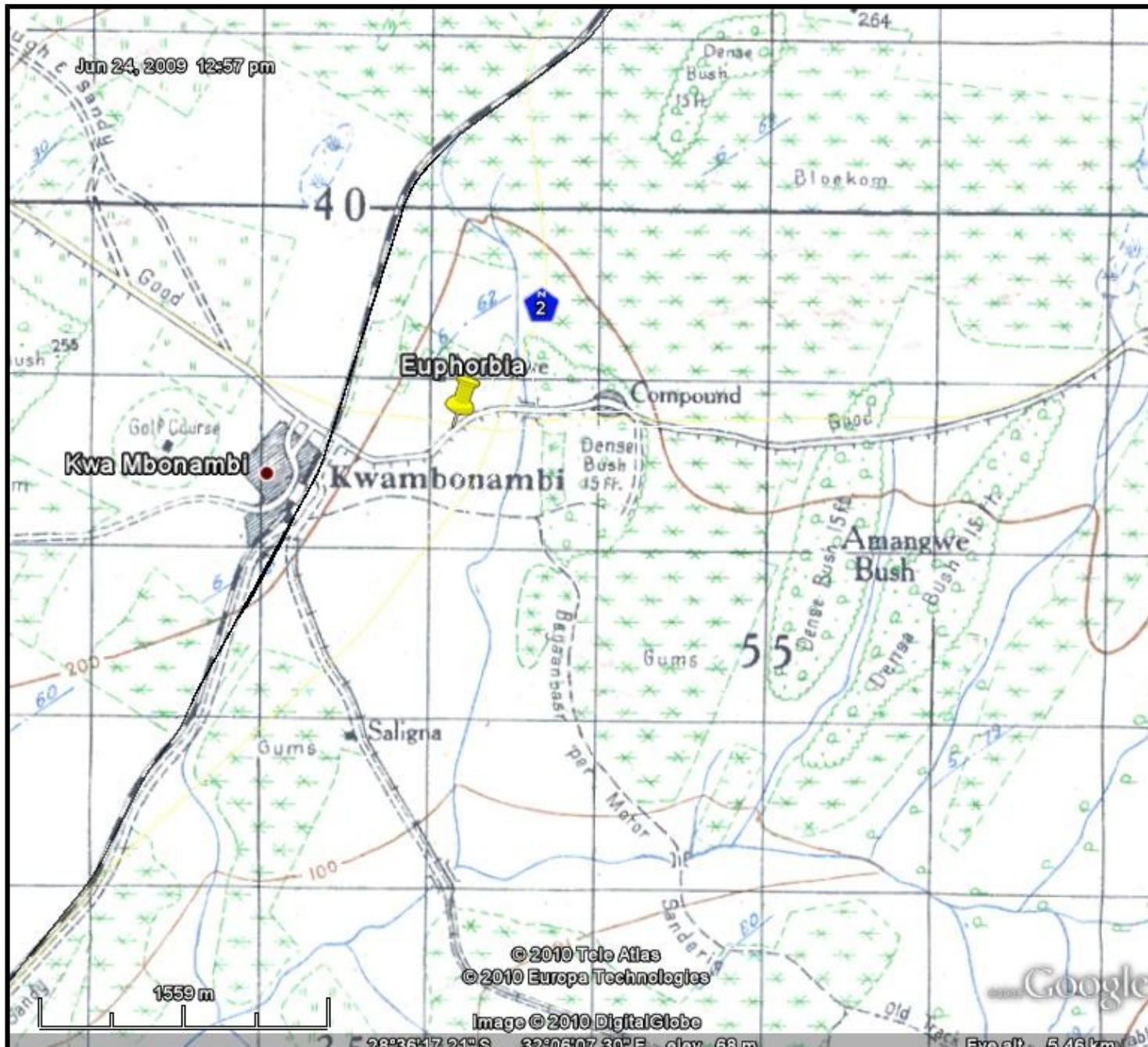




FIG. 4: LOCATION OF THE EUPHOBIA TREE IN RELATION TO 1937<sup>1</sup>



<sup>1</sup> The 1937 aerial is orientated to the current railway as this is the only ‘fixed’ location on the landscape

FIG. 5: EUPHORBIA TREE<sup>2</sup>



FIG. 6: EXCAVATIONS UNDERNEATH THE EUPHORBIA



CONCLUSION

<sup>2</sup> the second Euphorbia is much smaller and probably grew from the larger one.

Umlando undertook a monitoring phase for the KwaMbonambi interchange upgrade. The area was noted as having possible human remains underneath the *Euphorbia ingens*. The *E. Ingens* is known to be one of the trees used to demarcate Zulu graves in the past.

Umlando monitored the removal of, and excavations underneath, the *E. Ingens*. Neither human remains, nor signs of a burial pit in the stratigraphy were observed.

APPENDIX A

SURVEY REPORT



**ARCHAEOLOGICAL SURVEY OF THE PROPOSED  
KWAMBONAMBI OFFRAMP**

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## INTRODUCTION

Umlando was contracted to undertake an archaeological survey of a proposed development near the Kwambonambi-Mapelane turnoff, KwaZulu Natal. Fig. 1 is the locality map, and fig. 2 shows the affected area.

The proposed development is to enlarge the current road and off-ramp, as well as to have a taxi and bus drop-off zone beside the N2.

The current area consists of road reserve for the N2, Mondi afforestation plantation, and grassed area at the Kwambonambi turnoff. All of these areas have been heavily disturbed.

## RESULTS

We undertook a desktop analysis prior to the survey, and no sites occurred in the immediate vicinity. The closest sites were recorded by Umlando and these are located 7km – 12km away. These are Late Iron Age or Historical Period sites.

The survey did not record any sites in the affected area. However, we did not an old pincushion Euphorbia () adjacent to the Mondi turnoff<sup>3</sup>. This is an old Euphorbia and normally associated with historical graves. I could not determine if this was a real grave, without excavations. We suggest that if the Euphorbia is to be affected, then a heritage practitioner needs to be on site to salvage any potential human remains. Timeous notice for the monitoring is required as a permit would be required if any human remains are unearthed.

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<sup>3</sup> 28°35'58.59"S 32° 5'40.66"E

Figure 1: Locality of the proposed development

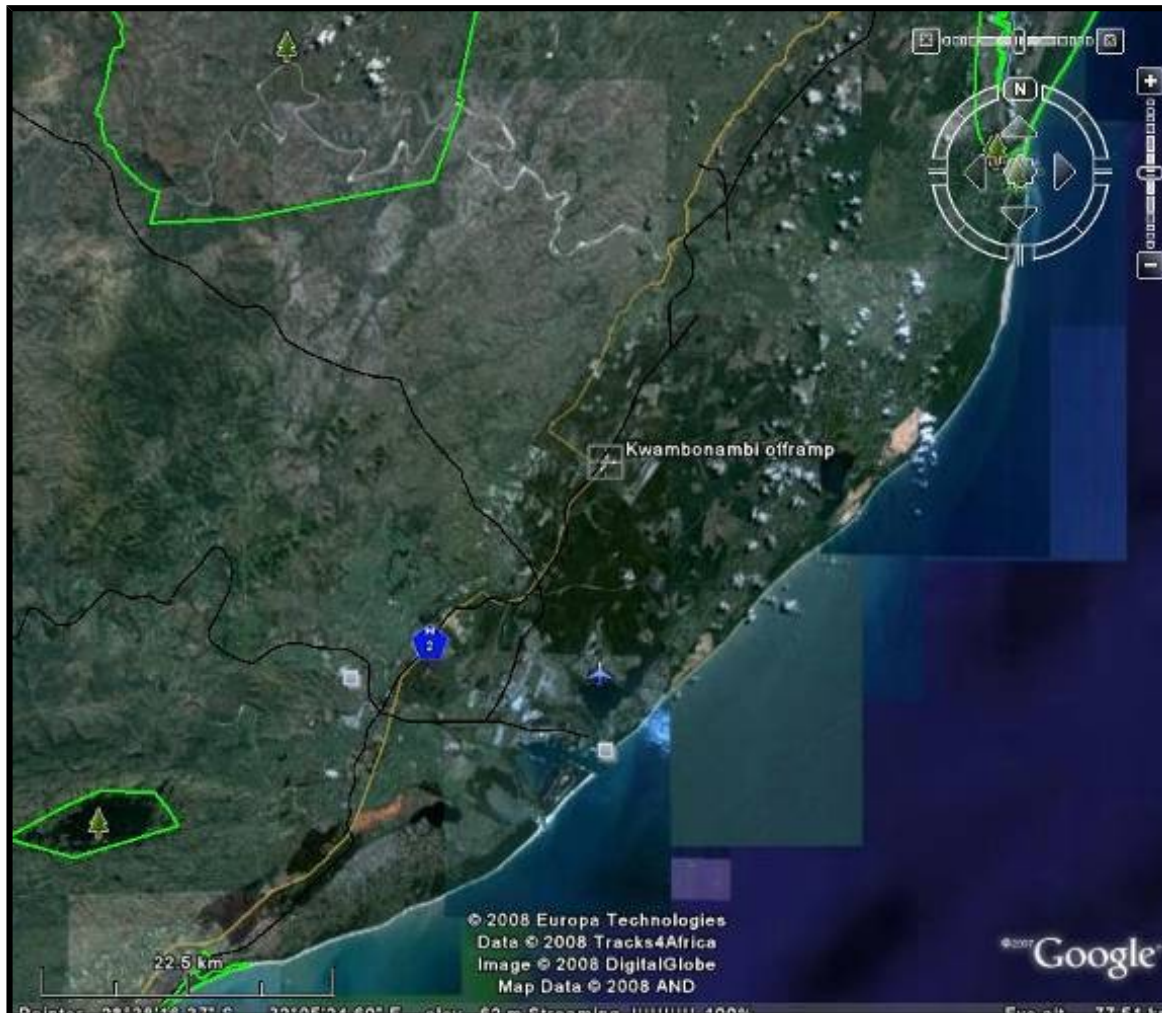


Figure 2: Locality of proposed development and Euphorbia tree.

