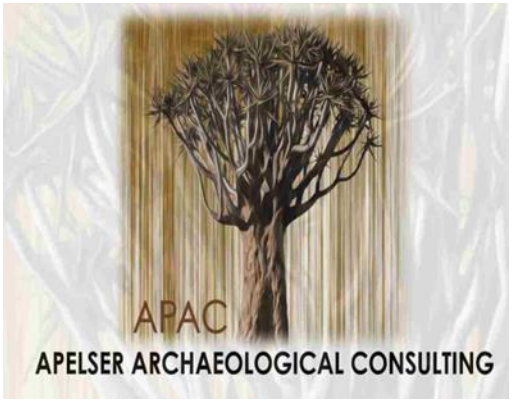

Comprehensive and Professional Solutions for all Heritage Related Matters

CK 2006/014630/23 **VAT NO.: 4360226270**

A Heritage Impact Assessment Report For the Proposed Dundee Research Station Feed Multiplication Project (Crop Farming) Near Dundee, Kwazulu-Natal Province

For:

Ukubhukuda Trading & Project 165 cc.

REPORT: **APAC023/78**

by:

A.J. Pelser
Accredited member of ASAPA
Member No. 106
October 2023

Assisted by: Len van Schalkwyk
eThembeni Cultural Heritage

P.O.BOX 73703
LYNNWOOD RIDGE
0040
Tel: 083 459 3091
Fax: 086 695 7247
Email: apac.heritage@gmail.com
Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

DISCLAIMER:

Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

Clients & Developers should not continue with any development actions until SAHRA or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference

In this instance the report should be submitted to Amafa

SUMMARY

APelser Archaeological Consulting cc (APAC cc) was appointed by Ukubhukuda Trading & Project 165 cc., to conduct a Phase 1 Heritage Impact Assessment for the proposed Dundee Research Station Seed Multiplication (crop farming) Project. The study and development area footprint are located near Dundee in the Province of Kwazulu-Natal.

The literature review indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. There are no known cultural heritage sites, features or material in the specific study & development area, and none were identified during the field assessment. This report discusses the results of the background literature & desktop research, as well as the field-based assessment, and provides recommendations on the way forward at the end.

From a Cultural Heritage point of view, it is recommended that the proposed Dundee Research Station Seed Multiplication (Crop Farming) Project can continue taking into consideration the recommendations provided on the way forward.

CONTENTS

1. INTRODUCTION

APelser Archaeological Consulting cc (APAC cc) was appointed by Ukubhukuda Trading & Project 165 cc., to conduct a Phase 1 Heritage Impact Assessment for the proposed Dundee Research Station Seed Multiplication (crop farming) Project. The study and development area footprint are located near Dundee in the Province of Kwazulu-Natal.

The literature review indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. There are no known cultural heritage sites, features or material in the specific study & development area, and none were identified during the field assessment.

The location and boundaries of the study & development area footprint were provided to the Specialist by the client, and the Desktop Research & field-based assessment focused on this as well as the larger geographical area within which the proposed development is located.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;

2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;

3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;

4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;

5. Review applicable legislative requirements;

3. LEGISLATIVE REQUIREMENTS

Aspects are dealt with mainly in. The National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) are the two main legislations concerning the conservation of cultural resources, used as guidelines when conducting the Heritage Impact Assessment.

3.1. The National Heritage Resources Act (Act 25 of 1999)

According to the National Heritage Resources Act (Act 25 of 1999) (NHRA), the following is protected as cultural heritage resources:

a. Archaeological artifacts, structures, and sites older than 100 years
b. Ethnographic art objects (e.g., prehistoric rock art) and ethnography
c. Objects of decorative and visual arts
d. Military objects, structures, and sites older than 75 years
e. Historical objects, structures, and sites older than 60 years
f. Proclaimed heritage sites
g. Grave yards and graves older than 60 years
h. Meteorites and fossils
i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

a. Places, buildings, structures, and equipment of cultural significance
b. Places to which oral traditions are attached or which are associated with living heritage
c. Historical settlements and townscapes
d. Landscapes and features of cultural significance
e. Geological sites of scientific or cultural importance
f. Sites of Archaeological and paleontological importance
g. Graves and burial grounds
h. Sites of significance relating to the history of slavery
i. Movable objects (e.g., archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

The Heritage Impact Assessment (HIA) process is done to determine whether there are any heritage resources located within the area to be developed as well as to determine the possible impacts of the proposed development. An Archaeological Impact Assessment (AIA) only looks at archaeological resources, such as material remains of human life or activities which are at least 100 years of age, and which are of archaeological interest. A HIA must be done under the following circumstances:

a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
b. The construction of a bridge or similar structure exceeding 50m in length
c. Any development or other activity that will change the character of a site and exceed 5 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34(1) of the Act state that no person may demolish any structure or part thereof that is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure refers to any building, works, device or other facility made by people, and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

To alter means any action taken that affects the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology, and Meteorites

Section 35(4) of the Act deals with archaeology, palaeontology, and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

a. ancestral graves
b. royal graves and graves of traditional leaders
c. graves of victims of conflict
d. graves designated by the Minister
e. historical graves and cemeteries
f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

i. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

ii. destroy, damage, alter, exhume, or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

iii. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province, and local police. Furthermore, permission must also be gained from the various landowners (i.e., where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker, or an institution declared under the **Human Tissues Act** (**Act 65 of 1983 as amended**).

3.2. The National Environmental Management Act (No. 107 of 1998)

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

The specific requirements that specialist studies and reports must adhere to are contained in Appendix 6 of the EIA Regulations.

4. METHODOLOGY

4.1. Review of literature

A review of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography. These include Bergh (1999), Huffman (2007) & Lombard et.al (2012).

4.2. Field survey

The field assessment component of the study is conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites, and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed. Where possible grids are walked in the area where development is proposed.

The field-based assessment was conducted on the 14th of October 2023.

4.3. Documentation

All sites, objects, features, and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. PROJECT DESCRIPTION

The Dundee Project is related to Seed Multiplication (Crop farming) on a portion of open land comprising approximately 12 hectares, situated in close proximity to the Dundee Research Station. The heritage work forms part of the Environmental Authorization for the proposed development, done on behalf of the Department of Agriculture & Rural Development KZN.

6. DESCRIPTION OF THE AREA

The study and development area footprint are located south of the Dundee Research Station, and just south of and bordering the R68 Road. The site is located north-east of the town of Dundee in the Province of Kwazulu-Natal.

The topography of the area is flat and open, with no rocky outcrops or ridges present. Although grass cover was fairly dense across the site, this did not severely hamper visibility on the ground. The area has a well-defined boundary and features strong indicators of earlier agricultural activity, with the presences of plough and irrigation lines. As a result of this, if any significant cultural heritage (archaeological and/or historical) sites, features or material existed here in the past, it would have been extensively disturbed or destroyed.

Figure 1: General location of the study area indicated by the red polygon (Google Earth 2023).

Figure 2: Closer view of the study area footprint (Google Earth 2023).

7. DISCUSSION

7.1 Stone age

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided into three periods as listed below. It is important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

- Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
- Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
- Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

There are no known Stone Age sites or material in the study & development area. If any were to be found, these would be single artifacts or small scatters of material, out of context, and on the surface of the area.

7.2 Iron age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts. In South Africa it can be divided in two separate phases (Bergh1999: 96-98), namely:

- Early Iron Age (EIA) 200 – 1000 A.D
- Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

- Early Iron Age (EIA) 250 – 900 A.D.
- Middle Iron Age (MIA) 900 – 1300 A.D.
- Late Iron Age (LIA) 1300 – 1840 A.D.

There are no known Iron Age sites, features or material in the study and development area and none were identified during the October 2023 field assessment.

7.3 Historic age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write.

There are no known recent historical sites and features in the study & development area. The only feature recorded was a recently dug, fenced-in, trench that probably relates to soil-sampling or prospecting in the area.

"Archaeological evidence from KwaZulu-Natal shows that, similar to elsewhere in southern Africa, the region was occupied exclusively by Stone Age hunter-gatherers until the early centuries of the first millennium AD. The Later Stone Age (LSA) is associated with KhoeSan people. In KwaZulu-Natal the earliest evidence of agriculturist communities appears in the early centuries of the first millennium AD. Calibrated dates of c. 400 AD identify Mzonjani as the earliest known farming settlement in KwaZulu-Natal. Although evidence from the first phase of the Iron Age in KwaZulu-Natal is still relatively sparse, it is already apparent from southern Africa in general that the significant aspects of what has been called the Early Iron Age 'package' - including crop cultivation, livestock herding, iron production, settled village life and distinctive styles of ceramics - were already established. In KwaZulu-Natal the first, or Mzonjani, phase appears to be restricted to coastal areas, extending from the Mozambique border to the area south of Durban. People chose living sites in positions favorable for a range of economic activities, including slash-and-burn agriculture, small stock herding and iron smelting, while shellfish collecting seems to have contributed a significant part of the diet.

In the second half of the first millennium AD, Iron Age settlement extended further south along the coast, as well as inland up the valleys of major rivers such as the Thukela system, reaching altitudes of around 1000 m but remaining in wooded, savanna environments. The first interactions between hunter-gatherers and agriculturists in KwaZulu-Natal took place in coastal or near-coastal settings, but became more widespread during the latter part of the first millennium AD. On Iron Age settlements many shell disc beads, a large proportion of ostrich-egg shell, which must have been introduced from grassland regions, well inland of the area settled by Iron Age people at that time, have been found. Later Stone Age-style bone arrowpoints and link-shafts, and on some sites, LSA stone artefacts, have also been found, possible evidence for hunter-gatherer presence at some of these sites. Likewise, in LSA deposits in rock shelters, pottery fragments of typical Early Iron Age style occur, sometimes far inland of Early Iron Age settlement.

Early in the second millennium AD, Late Iron Age settlement had extended into some grasslands of the KwaZulu-Natal interior. Some of these sites are in naturally defensible positions and have surrounding walls, while the associated material culture no longer includes LSA elements. This may reflect a period of greater competition or conflict. Later in the second millennium, Iron Age settlements become quite dense in these lower-altitude grassland areas, yet even with the arrival of white colonists in the nineteenth century, KhoeSan groups still living a hunter-gatherer lifestyle survived in the interior at higher altitude, where the environment was unfavorable for Iron Age farming.

During the second millennium AD we begin to see archaeological evidence for the material culture associated with ethnic/linguistic groups known today as Nguni-speaking people in KwaZulu-Natal. These patterns can be traced back to the beginning of the second millennium AD. The evidence becomes compelling in the second half of the millennium when ceramics, settlement pattern and historical sources confirm continuity into recent times"

The above section comes from Ribot et.al., 2010:90-91.

"Most of the Stone Age sites in the near vicinity of the study area occur in shelters and in open air contexts as exposed by donga and sheet erosion. Some Middle Stone Age flakes, probably dating back to ca. 40 000 – 200 000 years ago, occur in disturbed context in dongas and road cuttings. The majority of Later Stone Age sites as well as rock art sites occur further west in the foothills of the Drakensberg.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the general geographical area in which the study area falls contains a wide range of archaeological sites covering different time-periods and cultural traditions. These include Early Stone Age site, Middle Stone Age, Later Stone Age sites, Later Iron Age sites and numerous historical sites dating back to the colonial period. Some of the farms in the area contain graves and structures relating to early Voortrekker settlement. However, the majority of older buildings on farmsteads were erected by British colonists after 1850 who occupied farms previously inhabited by Voortrekker pioneers.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa. European settlement of the area started soon after 1838 when the first Voortrekker settlers marked out large farms in the area. However, most of these farms were abandoned in the 1840's when Natal became a British colony only to be reoccupied again by British immigrants".

The above section taken from Prins 2013: 6-9.

Results of the Field-based Assessment

No cultural heritage (archaeological and/or historical) sites, features or material were identified in the study and seed multiplication (crop farming) area. The only feature identified is a recent one, with no cultural heritage origin or significance. It is located on the southern boundary of the area. The site consists of fenced-off area, within which there is a secondary fence and a metal frame enclosing a deep square pit that appears recently dug.

GPS Location of feature: **S28° 08'32.84 E30°18'30.56**

Figure 3: General view of the area. Note the ploughing/irrigation evidence (courtesy eThembeni 2023).

Figure 4: Another view of the area (courtesy eThembeni 2023).

Figure 5: A view of the area taken towards the Dundee Research Station (courtesy eThembeni)

Figure 6: General view of part of the area. Note the open and flat nature of the area, with no tree cover evident (courtesy eThemebeni).

Figure 7: The recent feature found on the southern boundary of the area (courtesy eThembeni).

Figure 8: The location of the recent trench feature found on the southern boundary of the area (courtesy eThembeni & Google Earth 2023).

Impact Assessment and Mitigation Measures

The significance of impacts is determined using the following criteria:

Probability: describes the likelihood of the impact actually occurring

- **Improbable:** the possibility of the impact occurring is very low, due to the circumstances, design or experience.
- **Probable:** there is a probability that the impact will occur to the extent that provision must be made therefore.
- **Highly probable:** it is most likely that the impact will occur at some stage of the development.
- **Definite:** the impact will take place regardless of any prevention plans and there can only be relied on mitigation measures or contingency plans to contain the effect.

Duration: the lifetime of the impact

- **Short Term**: the impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.
- **Medium Term:** the impact will last up to the end of the phases, where after it will be negated.
- **Long Term:** the impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.
- **Permanent:** the impact is non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.

Scale: the physical and spatial size of the impact

- **Local:** the impacted area extends only as far as the activity, e.g., footprint
- **Site:** the impact could affect the whole or measurable portion of the abovementioned property.
- **Regional:** the impact could affect the area including the neighboring residential areas.

Magnitude/Severity: Does the impact destroy the environment, or alter its function

- **Low:** the impact alters the affected environment in such a way that natural processes are not affected.
- **Medium:** the affected environment is altered, but functions and processes continue in a modified way.
- **High:** function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

Significance: This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

Negligible: the impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.

- **Low:** the impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.
- **Moderate:** the impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
- **High:** The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.

The significance is calculated by combining the criteria in the following formula:

Sum (Duration, Scale, Magnitude) x Probability
S = Significance weighting; Sc = Scale; D = Duration; M = Magnitude; P = Probability

With sites, features or material identified in the area the current site layout/footprint, there will be no impact of the proposed development on recorded and known heritage sites.

Aspect	**Description**	**Weight**
Probability	**Improbable**	**1**
	Probable	2
	Highly Probable	4
	Definite	5
Duration	**Short Term**	**1**
	Medium Term	3
	Long Term	4
	Permanent	5
Scale	Local	1
	Site	**2**
	Regional	3
Magnitude/Severity	**Low**	**2**
	Medium	6
	High	8
Significance	**Sum (Duration, Scale, Magnitude)**	**x Probability**
	Neglible	**≤20**

	Low	>20≤40
	Moderate	>40≤60
	High	>60

Results: 1+2+2×1 = 5 i.e., ≤20

The impact of the proposed development on the cultural heritage in the area is therefore deemed as Neglible based on the Impact Assessment criteria used**.**

Based on the desktop research it is clear that there are some cultural heritage sites and features present in the larger geographical area within which the study & project area is located. It is therefore always possible that similar archaeological and recent historical sites, features and material could be present here, although none were identified during the field-based assessment of the study area. From this perspective it is therefore recommended that a Chance Find Protocol be drafted and implemented for the Dundee Seed Multiplication (Crop Farming) Project located close to the Dundee Research Station. This will ensure that, should any previously unknown and unrecorded sites, features and cultural material deposits be exposed during any activities, that these could be investigated by a Heritage Specialist in order to provide recommendations on their significance and on the way forward in terms of possible mitigation measures.

8. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting cc (APAC cc) was appointed by Ukubhukuda Trading & Project 165 cc., to conduct a Phase 1 Heritage Impact Assessment for the proposed Dundee Research Station Seed Multiplication (crop farming) Project. The study and development area footprint are located near Dundee in the Province of Kwazulu-Natal.

The impact of the proposed development on the cultural heritage in the area is deemed as Neglible based on the Impact Assessment criteria used**.** It is clear, however, that there are some cultural heritage sites and features present in the larger geographical area within which the study & project area is located. It is always possible that similar archaeological and recent historical sites, features and material could be present here, although none were identified during the field-based assessment of the study area. From this perspective it is recommended that a Chance Find Protocol be drafted and implemented for the Dundee Seed Multiplication (Crop Farming) Project located close to the Dundee Research Station.

Finally, from a Cultural Heritage point of view, it is recommended that the proposed Dundee Research Station Seed Multiplication (Crop Farming) Project can continue taking into consideration the recommendations provided on the way forward.

The often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or buried sites, features or material be uncovered during any development actions then an Archaeological expert should be contacted to investigate and provide recommendations on the way forward.

9. REFERENCES

General and Closer views of study & proposed Township Development area: Google Earth 2023.

Len van Schalkwyk: **Field Inspection Report – Dundee Research Station Seed Multiplication (Crop Farming) Project. KwaZulu Natal**. eThembeni Cultural Heritage. October 2023.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies**. Pretoria: J.L. van Schaik.

Huffman, T.N. 2007. Handbook to the Iron Age: **The Archaeology of Pre-Colonial Farming Societies in Southern Africa**. Scotsville: University of KwaZulu-Natal Press.

Knudson, S.J. 1978. **Culture in retrospect**. Chicago: Rand McNally College Publishing Company.

Prins, F. 2013. **Cultural Heritage Impact Assessment of the Proposed construction of the New 88KV Spring Grove Tee Powerline, Nottingham Road, KwaZulu-Natal. Unpublished** Report. For: Kerry Seppings Environmental Management Specialists. May 2013.

Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: The Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

Ribot, I., Morris, Allan G., Sealy, J & Maggs, T. 2010. **Population history and economic change in the last 2000 years in KwaZulu-Natal, RSA**. South African Humanities Vol.22, Issue 1. September 2010 (pp.89-110).

APPENDIX A: DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C: SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

i. National Grade I significance: should be managed as part of the national estate

ii. Provincial Grade II significance: should be managed as part of the provincial estate

iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)

iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/ medium significance)

v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)

vi. General protection B (IV B): site should be recorded before destruction (medium significance)

vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D: PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – Grade I and II
Protected areas - An area surrounding a heritage site
Provisional protection – For a maximum period of two years
Heritage registers – Listing Grades II and III
Heritage areas – Areas with more than one heritage site included
Heritage objects – e.g. Archaeological, paleontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states
Structures – Older than 60 years
Archaeology, paleontology and meteorites
Burial grounds and graves
Public monuments and memorials

APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.

2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.

3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.

4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.

5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.

6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.