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ARCHAEOLOGICAL AND CULTURAL HERITAGE PHASE I SPECIALIST REPORT FOR THE PROPOSED CONSTRUCTION OF VRYHEID NETWORK STRENGTHENING PROJECT WITHIN THE JURISDICTION OF SWELLENDAM LOCAL MUNICIPALITY OF OVERBERG DISTRICT MUNICIPALITY, WESTERN CAPE PROVINCE

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Final report	--

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DECLARATION

ABILITY TO CONDUCT THE PROJECT

Munyadziwa Magoma is a professional archaeologist, having obtained his BA degree in Archaeology and Anthropology at University of South Africa (UNISA), an Honours degree at the University of Venda (UNIVEN), and a Masters degree at the University of Pretoria (UP). He is an accredited Cultural Resource Management (CRM) member of the Association for southern African Professional Archaeologists (ASAPA) and Amafa aKwaZulu-Natali. Munyadziwa is further affiliated to the South African Archaeological Society (SAAS), the Society of Africanist Archaeologists (SAfA), and the International Council of Archaeozoology (ICAZ). He has more than seven years' experience in heritage management, having worked for different CRM organisations and government heritage authorities. As a CRM specialist, Munyadziwa has completed well over hundred Archaeological Impact Assessments (AIA) for developmental projects situated in several provinces of the Republic of South Africa. The AIAs projects he has been involved with are diverse, and include the establishment of major substation, upgrade and establishment of roads, establishment and extension of mines. In addition, he has also conducted Heritage Impact Assessments (HIAs) for the alteration to heritage buildings and the relocation of graves. His detailed CV is available on request.

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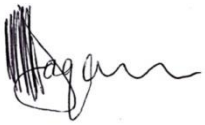

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EXECUTIVE SUMMARY

Introduction and background

Vhubvo Archaeo-Heritage Consultant Cc has been requested by Nsovo Environmental Consulting to conduct Archaeological and Cultural Heritage Phase I Assessment Study for the proposed Vryheid Network Strengthening Project. This project will encompass the construction of a Substation which will be approximately 600m x 600m, as well as respective loop in and loop out lines. For the purpose of this study, seven (7) sites have been proposed for the substations and another seven (7) sites for the loop in and loop out lines. The proposed development is located in Ward 3 of the Swellendam Local Municipality, which falls within the jurisdiction of Overberg District Municipality in the Province of Western Cape. The seven sites are located approximately 15km from the historical town of Swellendam, along the N2 main road from the City of Cape Town.

Swellendam is the third oldest town in South Africa. It was an area of note in the 16th century due to its location which offers a better place for early travelers and Khoikhoi people to trade with each others. In 1743, Swellendam was declared a magisterial district and was named after Governor Hendrik Swellengrebel and his wife, Helena Ten Damme. The town had been visited by well renowned people such as François Le Vaillant (1781), Lady Anne Barnard (1798), William John Burchell (1815) and Thomas William Bowler (1860). Today Swellendam is a flourishing agricultural area, and has an estimated 50 provincial heritage sites most of these are structures with Cape Dutch architecture.

The aim of the study was to entirely identify and document archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structure of historical significance that may be affected by the proposed development, these will in turn assist the developer in ensuring proper conservation measure in line with the National Heritage Resource Act, 1999 (Act 25 of 1999).

The findings of this study have been informed by desktop study and field survey. The desktop study was undertaken through SAHRIS for previous Cultural Heritage Impact Assessments conducted in the region of the proposed development, and also for researches that have been carried out in the wider area over the past years. In addition, historical background research was also done with the National Archive of South Africa as well as the Deed Office and Surveyor General. This research focuses mainly on farm Dagbreek, Farm 253, Kluitjeskraal and Leeuw Rivier.

Need of the project

The proposed project aims to address the constraints on the sub-transmission network to the east of Bacchus 2x500 MVA 400/132 kV substation, which forms part of the Outeniqua CLN in the Western

Cape Grid. The proposed development thus forms part of the link to strengthen the supply network between the existing Vryheid substation and the proposed Agulhas substation.

Survey and receiving environment

The proposed seven alternatives Agulhas substations and its respective power lines are located on a private owned farm which can only be accessed through an appointment. The area is currently used for farming activities, and is fairly steep with very low undulating dunes which suddenly rise from the surrounding environment (see Figure 2 - 6). The land on which the development is proposed is transformed and extensively used for agriculture. The seven alternatives for substation and respective lines will be further discussed below.

- Alternative A

  This site is largely transformed and located in close proximity to the N2 main road. It has a high percentage of rocks. In fact, in an attempt to make the site productive, the farmer has assembled several cairns of stones in order to clear the area. Sections of this site paint a picture of an area which is suitable for Stone Age people. Thus, there is ample water (a perennial waterway cut across the proposed area) and grazing for wild life Stone Age people would have hunted. In addition, although no shelters were identified in the area, the ample stones on site could have been easily transformed into tools. As a result, it is very likely that Stone Age people did roam around this alternative.

- Alternative B

  This site is on an agricultural land wherein canola is being extensively cultivated. The site is fairly steep and there is a well defined access road that cut across the site. The area was found to be seriously degraded by previous farming activities, such that no archaeological material could have survived or remained *in situ* on the affected property.

- Alternative C

  Similarly to A, alternative C has high percentage of rocks and as a result it has low agricultural potential. Hence it is used for livestock grazing. Experience has taught us that archaeological sites and isolated tools tend to remain stable under area were game or livestock farming are practised. Alternative C bears potential for isolated archaeological tools.

- Alternative D

  This site is used for the production of grain and is vehemently disturbed to yield any archaeological material. A small reservoir was noted in the foot print of the proposed area. However, this is a recent phenomenon and is not protected by legislature.

- Alternative E

  Similarly to site B, this proposed site is transformed agricultural and is used for the cultivation of canola crops. Likewise the area was found to be seriously degraded and no archaeological material could have survived or remained *in situ* on the affected property.

- Alternative F

  The proposed area is characterised by extensive agricultural farming, topographical map dating to the 1940s depict agricultural activities in the area. Any archaeological materials that could have existed here in the past had probably been destroyed during the time when farming was been established.

- Alternative G

  According to the examination of the area obtained from Google Earth, as well as topographical map, the area on which this alternative is proposed is transformed agriculturally. As a result, there was no topographical feature providing likely occupational sites in the area. In fact, it doesn't appear like they could be any archaeological materials that could have survived such disturbances.

Impact statement

The impact of the proposed substation and power line on archaeological and cultural heritage remains is rated as being low. The probability of locating any important archaeological heritage remains during construction of the project is less likely on alternative (s) A and C, while no archaeological materials are expected on alternative(s) B, D and E. Nonetheless, the affected property is thus not considered to be very archaeologically sensitive.

Past studies and historical documents

Although few academic research have been conducted in the area around Swellendam town, several archaeological impact studies have been conducted in the proposed area, these include work by Deacon 2006; Hart and Orton 2005; Kaplan 2002, 2006; Van Pletzen Vos and Rust 2011 (see reference list for other studies). Although these studies have documented archaeological resources, these are found in low-density and often isolated, and are rated as being of low significance. In addition, other many more ESA, MSA and LSA artefacts are on displays in museums such as Robertson, Bonnievale, McGregor and Montagu. Likewise, the source of these is unknown or lost, reducing them to be of little significance scientifically. Nevertheless, the fact that the studies conducted yielded isolated materials is not unexpected, since the area is disturbed by agricultural activities. Aerials photograph obtained from the Deed Office and Surveyor General shows farming activities in the area from as early as the beginning of the 21st century. Although some historical structures (farmsteads) are noted in the area, none

of these will be impacted by the proposed development. Archival search recounting colonial information about these farms was not available from the National Archives, there was thus no mention of any of those farms proposed for this development from the Archives, it is thus possible that most of the farm names in the area might have been changed. As have been documented in the literatures, during colonial era, agriculture was associated with slavery. Therefore, slave trade could have been a common phenomenon in the region. Nonetheless, no slave or farm graves, historical farmsteads or labourer cottage are known to exist in any of the area (Sites A, B, C, D, E, F and G) wherein the project is proposed. If any of these was available, there would have been visible on the historical photograph/ and or topo map.

Restrictions, assumptions, visibility and survey success

The field survey lasted two days of the 14th and 15th of August 2015. An archaeologist from Vhubvo conducted the survey As with any survey, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. As a result, should any archaeological/ or grave site be observed during construction, a heritage specialist must immediately be notified. It should also be noted that despite countless attempt to arrange for access to these sites, it was complicated to gain full access of alternative(s) A, C, E, F and G. However, sites A, C and E are located along the main road(s), which provided a good view, leading to a productive survey. Hence, enough information of these sites where gathered to offer an adequate defensible recommendation. Nevertheless, alternative F and G was not physical surveyed, and information about these sites was mostly relied on historical and Google images. As a consequence, no site depictions of these sites are available.

Survey findings

The Archaeological and Cultural Heritage Phase I Impact Assessment for the proposed construction of substation and power line has identified no significant impacts to archaeological material that will need to be mitigated prior construction. Despite that no significant archaeological materials were identified, alternative(s) A and C remain sensitive. As a result, chances of encountering isolated artefacts are considered moderate in those sites. It should be borne in mind that, none of the materials that can be found here can be considered to be of such significance that can prevent the proposed development from proceeding.

Table 1: Possibility of archaeological/ heritage materials on sites.

Landscape type	Description	Occurrence still possible	Likely occurrence
Archaeology	Early, Middle and Late Stone Age Early and Late Iron Age	Yes No	Likely (Isolated) Rather unlikely
Burial and Graves	Pre-colonial burials Graves of victims of conflict Graves older than 100 years Graves older than 60 years Graves younger than 60 years	Yes	Unlikely
Built Environment	Formal public spaces Historical structures Places associated with social identity/ displacement	Yes	Unlikely
Historic Farmland	Historical farm yards Historical farm workers villages Irrigation furrows Historical routes Distinctive types of planting	Yes	Unlikely
Landscape usage	Sites associated with living heritage e.g., initiation school sites, Sites of political conflict Sites associated with a historic event/person	No	Unlikely
Historic rural Town	Historic mission settlements	No	No

Recommendations and Conclusions

Although no significant archaeological materials were identified on the proposed area for substation and power-line, this report due recommend the following:

- Alternative B is the most preferred site, followed by E and then D. This recommendation is based on that these areas are vehemently disturbed by activities related to cultivation. As a result, there is no archaeological material that could have remained *in situ* in those alternatives. Furthermore, the entire area is plain and do not provide related rocks that can be used for the production of Stone Age tools. There being no significant archaeological materials found within the proposed alternatives, and none are expected (considering the disturbances on site), it is recommended that any of alternative(s) B, E or D be considered. If the developer decides to choose any of these sites, the proposed project can proceed without further archaeological or heritage assessment.
- The area proposed for Alternative(s) A and C are considered sensitive. As aforesaid, access to these sites was limited, and did not adequately cover the proposed site (±600m x 600m for substation and ±5km for powerlines). It is thus recommended that if the developer is to choose any of these sites, the area be subjected to a final Cultural Heritage Walk down phase of the project area, such will ensure that the substation and individual pylons do not impact on archaeological sites (mostly isolated tools), if any. This walk down should also contemplate on servitude and new access roads that will be established for this proposed development. In addition, the exact area for Alternative F and G were not properly surveyed due to amongst

others access. As such, these alternatives should also be subjected to a walk down if they are to be preferred.

In the event that archaeological materials are unearthed, all construction within a radius of at least 10m of such indicator should cease and the area be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the meantime, it is the responsibility of the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement by SAHRA.

The proposed construction can proceed without any further archaeological or cultural heritage assessment.

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ACRONYMS AND ABBREVIATIONS

AIA	Archaeological Impact Assessment
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LIA	Late Iron Age
MIA	Middle Iron Age
EIA	Early Iron Age
HMP	Heritage Management Plan
LSA	Late Stone Age
MSA	Middle Stone Age
ESA	Early Stone Age
NASA	National Archives of South Africa
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Authority
SAHRA	South African Heritage Resources Agency

GLOSSARY OF TERMS

The following terms used in this Archaeology are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, South African Heritage Resources Agency [SAHRA] Policies as well as the Australia ICOMOS Charter *(Burra Charter)*:

Archaeological Material: remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artifacts, human and hominid remains, and artificial features and structures.

Artefact: Any movable object that has been used, modified or manufactured by humans.

Conservation: All the processes of looking after a site/heritage place or landscape including maintenance, preservation, restoration, reconstruction and adaptation.

Cultural Heritage Resources: refers to physical cultural properties such as archaeological sites, palaeolontological sites, historic and prehistorical places, buildings, structures and material remains, cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. This include intangible resources such religion practices, ritual ceremonies, oral histories, memories indigenous knowledge.

Cultural landscape: "the combined works of nature and man" and demonstrate "the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external".

Cultural Resources Management (CRM): the conservation of cultural heritage resources, management, and sustainable utilization and present for present and for the future generations

Cultural Significance: is the aesthetic, historical, scientific and social value for past, present and future generations.

Chance Finds: means Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Compatible use: means a use, which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

Conservation means all the processes of looking after a place so as to retain its cultural significance.

Expansion: means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.

Grave: A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place.

Heritage impact assessment (HIA): Refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. The HIA includes recommendations for appropriate mitigation measures for minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

Historic Material: remains resulting from human activities, which are younger than 100 years, but no longer in use, including artifacts, human remains and artificial features and structures.

Impact: the positive or negative effects on human well-being and / or on the environment.

***In situ* material:** means material culture and surrounding deposits in their original location and context, for instance archaeological remains that have not been disturbed.

Interested and affected parties Individuals: communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a proposal or activity and its consequences.

Interpretation: means all the ways of presenting the cultural significance of a place.

Late Iron Age: this period is associated with the development of complex societies and state systems in southern Africa.

Material culture means buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Mitigate: The implementation of practical measures to reduce adverse impacts or enhance beneficial impacts of an action.

Place: means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

Protected area: means those protected areas contemplated in section 9 of the NEMPAA and the core area of a biosphere reserve and shall include their buffers.

Public participation process: A process of involving the public in order to identify issues and concerns, and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to: a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters.

Setting: means the area around a place, which may include the visual catchment.

Significance: can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgments and science-based criteria (i.e. biophysical, physical cultural, social and economic).

Site: a spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

1. Introduction

At the request of Nsovo Environmental Consulting, Vhubvo Archaeo-Heritage Consultant Cc conducted an Archaeological and Cultural Heritage Phase I Assessment Study for the proposed Vryheid Network Strengthening Project, which according to the demarcation board is within Swellendam Local Municipality of Overberg District in the Western Cape Province. The survey was conducted in accordance with the SAHRA Minimum Standards for the Archaeology and Palaeontology. The minimum standards clearly specify the required contents of the report of this nature.

2. Sites location and description

The proposed development is located on Farms Dagbreek, Farm 253, Kluitjeskraal and Leeuw Rivier within the jurisdiction of Swellendam Local Municipality of Overberg District in the Western Cape Province. The seven (7) alternatives for substation and respective lines will be further discussed below.

- Alternative A

  This site is largely transformed and located in close proximity to the N2 main road. It has a high percentage of rocks. In fact, in an attempt to make the site productive, the farmer has assembled several cairns of stones in order to clear the area. Sections of this site paint a picture of an area which is suitable for Stone Age people. Thus, there is ample water (a perennial waterway cut across the proposed area) and grazing for wild life Stone Age people would have hunted. In addition, although no shelters were identified in the area, the ample stones on site could have been easily transformed into tools. As a result, it is very likely that Stone Age people did roam around this alternative.

- Alternative B

  This site is on an agricultural land wherein canola is being extensively cultivated. The site is fairly steep and there is a well defined access road that cut across the site. The area was found to be seriously degraded by previous farming activities, such that no archaeological material could have survived or remained *in situ* on the affected property.

- Alternative C

  Similarly to A, alternative C has high percentage of rocks and as a result it has low agricultural potential. Hence it is used for livestock grazing. Experience has taught us

that archaeological sites and isolated tools tend to remain stable under area were game or livestock farming are practised. Alternative C thus bears potential for isolated archaeological tools.

- Alternative D

  This site is used for the production of grain and is vehemently disturbed to yield any archaeological material. A small reservoir was noted in the foot print of the proposed area. However, this is a recent phenomenon and is not protected by legislature.

- Alternative E

  Similarly to site B, this proposed site is transformed agricultural and is used for the cultivation of canola crops. Likewise the area was found to be seriously degraded and no archaeological material could have survived or remained *in situ* on the affected property.

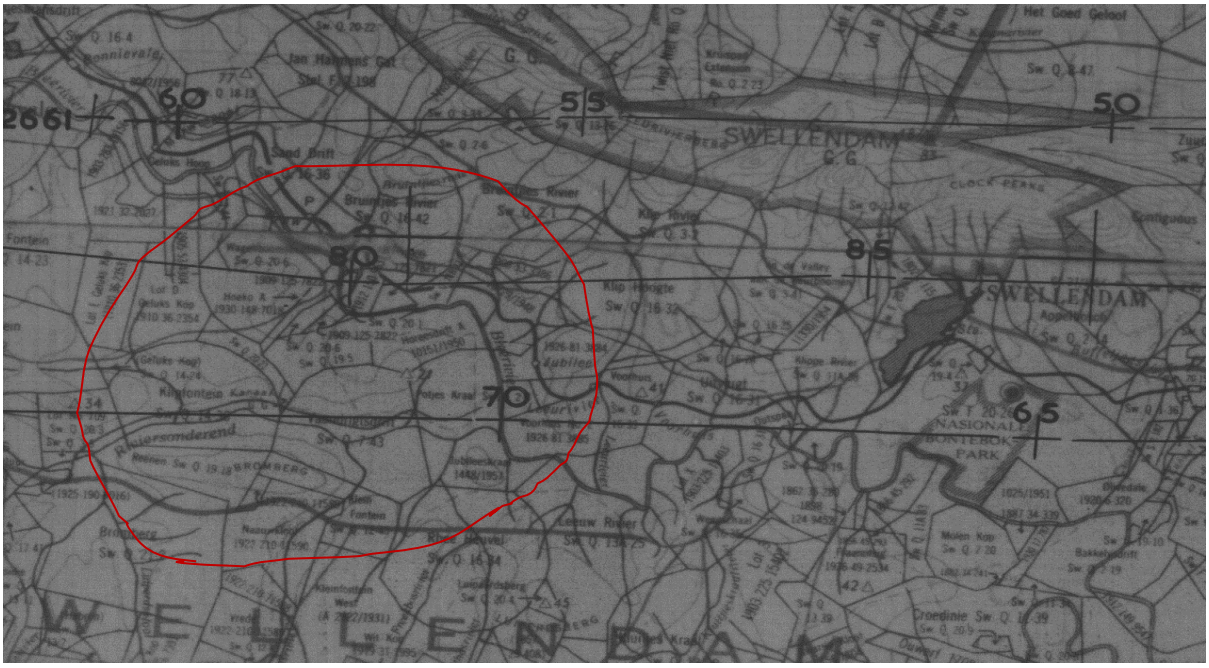
- Alternative F

  The proposed area is characterised by extensive agricultural farming, topographical map dating to the 1940s depict agricultural activities in the area. Any archaeological materials that could have existed here in the past had probably been destroyed during the time when farming was been established.

- Alternative G

  According to the examination of the area obtained from Google Earth, as well as topographical map, the area on which this alternative is proposed is transformed agriculturally. As a result, there was no topographical feature providing likely occupational sites in the area. In fact, it doesn't appear like they could be any archaeological materials that could have survived such disturbances.

Figure 1: An overview of the historical map of the proposed area (1948/3320 – Source Deeds).



Summary of Project Location Details

Province:	Western Cape
Local Municipality:	Swellendam
District Municipality:	Overberg
Farm Names:	Dagbreek, Farm 253, Kluitjeskraal and Leeuw Rivier
Proposed development:	Establishment of Substation and powerline

Figure 2: View of the topographical map of the proposed alternatives.

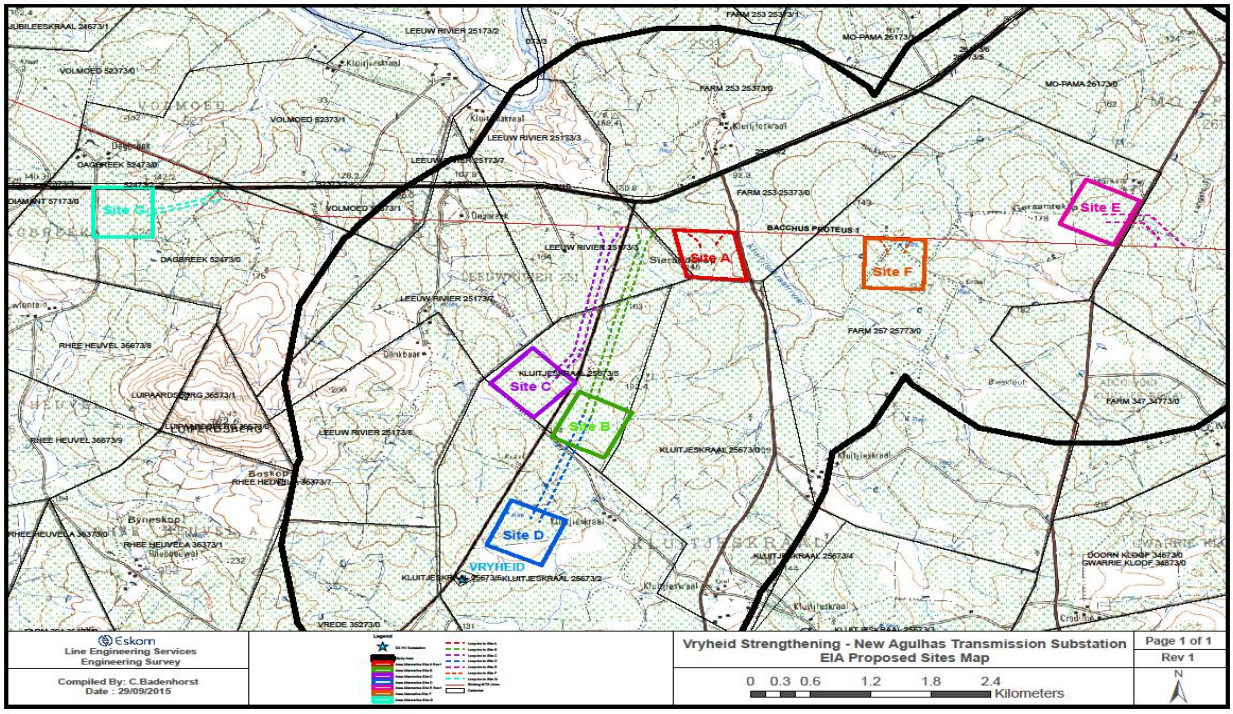


Figure 3: View of a map depicting the proposed seven alternatives.

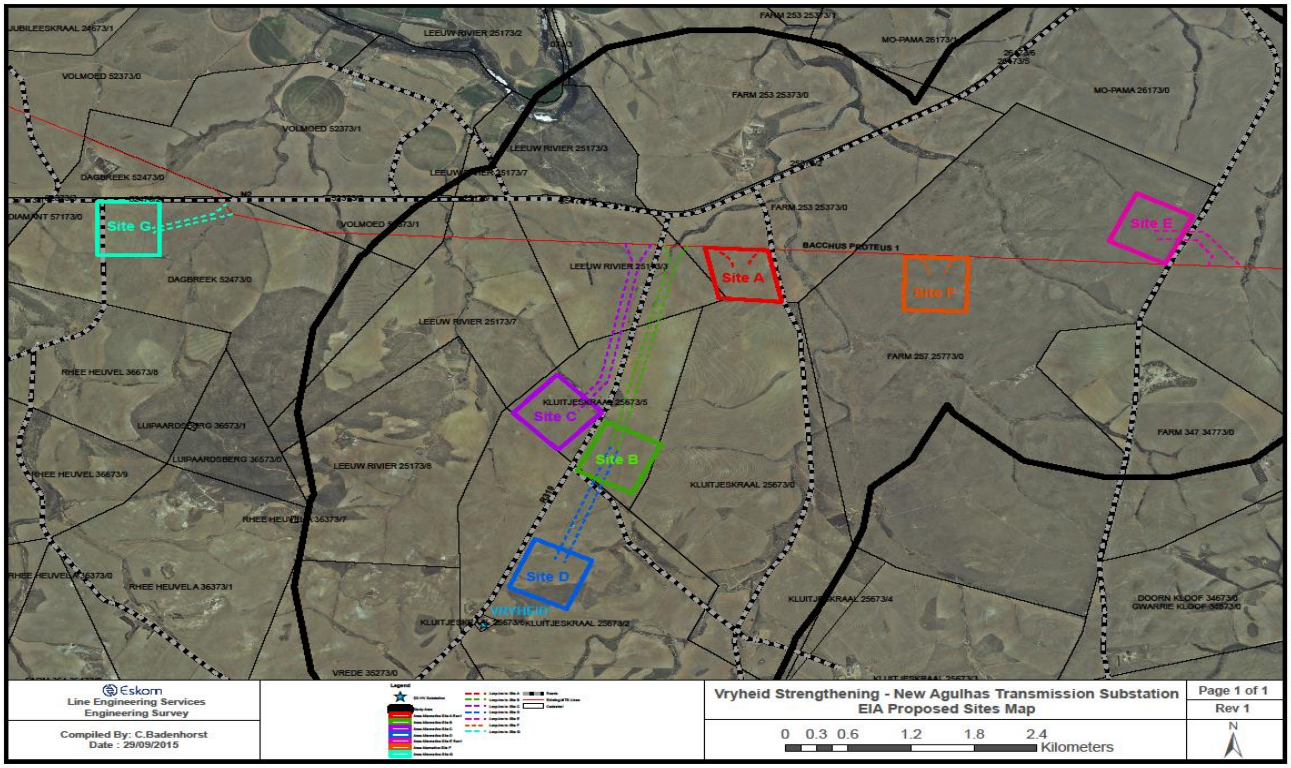


Figure 4: An overview of alternative A.

Figure 5: View of the second alternative.

Figure 6: View of section of the third alternative.

Figure 7: An overview of the fourth alternate, note the low significance water reservoir.

Figure 8: View of the proposed fifth alternative.

3. Nature of the proposed project

The proposed project aims to address the constraints on the sub-transmission network to the east of Bacchus 2x500 MVA 400/132 kV substation, which forms part of the Outeniqua CLN in the Western Cape Grid. The proposed development thus forms part of the link to strengthen the supply network between the existing Vryheid substation and the proposed Agulhas substation.

4. Purpose of the Cultural Heritage Study

The purpose of this Archaeological and Cultural Heritage study was to entirely identify and document archaeological sites, cultural resources, sites associated with oral histories, graves,

cultural landscapes, and any structure of historical significance that may be affected by the proposed construction, these will in turn assist the developer in ensuring proper conservation measure in line with the National Heritage Resource Act, 1999 (Act 25 of 1999). Impact assessments highlight many issues facing sites in terms of their management, conservation, monitoring and maintenance, and the environment in and around the site. Therefore, this study involves the following:

- Identification and recording of heritage resources that maybe affected by the proposed power line and Substation,
- Providing recommendations on how best to appropriately safeguard identified heritage sites. Mitigation is an important aspect of any development on areas where heritage sites have been identified.

5. Methodology

Background study introduction

The methodological approach is informed by the 2012 SAHRA Policy Guidelines for impact assessment. As part of this study, the following tasks were conducted: 1) literature review, 2), consultations with the developer and appointed consultants, 3), completion of a field survey and 5), analysis of the acquired data, leading to the production of this report.

Physical survey

The field survey lasted two days of the 14th and 15th of August 2015. An archaeologist from Vhubvo conducted the survey.

Documentation

The general project area was documented. This documentation included taking photographs using cameras a 10.1 mega-pixel Sony Cybershort Digital Camera. Plotting of finds was done by a Garmin etrex Venture HC.

Oral interview

Oral interview was initiated with farm owners. The oral interviews aim to understand the cultural landscapes and/ or intangible heritage of the area.

Restrictions and Assumptions

As with any survey, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. As a result, should any archaeological/ or grave site be observed during construction, a heritage specialist

must immediately be notified. It should also be noted that despite countless attempt to arrange for access to these sites, it was complicated to gain full access of alternative (s) A, C, E and F. However, sites A, C and E are located along the main road(s), which provided a good view, leading to a productive survey. Hence, enough information of the area was gathered to offer an adequate defensible recommendation. Nevertheless, alternative(s) F and G were not able to be properly surveyed, and information about these alternatives where mostly relied on historical and Google images.

6. Applicable heritage legislation

Several legislations provide the legal basis for the protection and preservation of both cultural and natural resources. These include the National Environment Management Act (No. 107 of 1998); Mineral Amendment Act (No 103 of 1993); Tourism Act (No. 72 of 1993); Cultural Institution Act (No. 119 of 1998), and the National Heritage Resources Act (Act 25 of 1999). Section 38 (1) of the National Heritage Resources Actrequires that where relevant, an Impact Assessment is undertaken in case where a listed activity is triggered. Such activities include:

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50 m in length; and
(c) any development or other activity which will change the character of an area of land, or water -

(i) exceeding 5 000 m² in extent;
(ii) involving three or more existing erven or subdivisions thereof; or
(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
(iv) the costs of which will exceed a sum set in terms of regulations by SAHRAor a Provincial Heritage Resources Authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a Provincial Heritage Resources Authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of theproposed development.

Section 3 of the National Heritage Resources Act (25 of 1999) lists a wide range of national resources protected under the act as they are deemed to be national estate. When conducting a Heritage Impact Assessment (HIA) the following heritage resources have to be identified:

(a) Places, buildings structures and equipment of cultural significance
(b) Places to which oral traditions are attached or which are associated with livingheritage
(c) Historical settlements and townscapes
(d) Landscapes and natural features of cultural significance
(e) Geological sites of scientific or cultural importance
(f) Archaeological and paleontological sites
(g) Graves and burial grounds including-

(i) ancestral graves
(ii) royal graves and graves of traditional leaders
(iii) graves of victims of conflict
(iv) graves of individuals designated by the Minister by notice in the Gazette
(v) historical graves and cemeteries; and
(vi) other human remains which are not covered by in terms of the Human Tissue Act,1983 (Act No. 65 of 1983)

(h) Sites of significance relating to the history of slavery in South Africa

(i) moveable objects, including -

(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites andrare geological specimens
(ii) objects to which oral traditions are attached or which are associated withliving heritage
(iii) ethnographic art and objects
(iv) military objects
(v) objects of decorative or fine art
(vi) objects of scientific or technological interest; and
(vii) books, records, documents, photographic positives and negatives,graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Other sections of the Act with a direct relevance to the AIA are the following:

Section 34(1) *No person may alter or demolish any structure or part of a structure, which isolder than 60 years without a permit issued by the relevant provincial heritage resources authority.*

Section 35(4) *No person may, without a permit issued by the responsible heritage resources authority:*

- *destroy, damage, excavate, alter, deface or otherwise disturb anyarchaeological or palaeontological site or any meteorite*

Section 36 (3) *No person may, without a permit issued by SAHRA or a provincial heritage resources authority:*

- *destroy, damage, alter, exhume, remove from its original position orotherwise disturb any grave or burial ground older than 60 yearswhich is situated outside formal cemetery administered by a localauthority; or*
- *bring onto or use at a burial ground or grave any excavationequipment, or any equipment which assists in detection or recovery ofmetals.*

7. Degree of significance

This category requires a broad, but detailed knowledge of the various disciplines that might be involved. Large sites, for example, may not be very important, but a small site, on the other hand, may have great significance as it is unique for the region.

Significance rating of sites

(i) High (ii) Medium (iii) Low

This category relates to the actual artefact or site in terms of its actual value as it is found today, and refers more specifically to the condition that the item is in.For example, an archaeological site may be the only one of its kind in the region, thus its regional significance is high, but there is heavy erosion of the greater part of the site, therefore its significance rating would be medium to low. Generally speaking, the following are guidelines for the nature of the mitigation that must take place as Phase 2 of the project.

High

- This is a 'do not touch' situation, alternative must be sought for the project, examples would be natural and cultural landscapes like the Mapungubwe Cultural Landscape World Heritage Site, or the house in which John Langalibalele resided.
- Certain sites, or features may be exceptionally important, but do not warrant leaving entirely alone. In such cases, detailed mapping of the site and all its features is imperative, as is the collection of diagnostic artefactual material on the surface of the site. Extensive excavations must be done to retrieve as much information as possible before destruction. Such excavations might cover more than half the site and would be mandatory; it would also be advisable to negotiate with the client to see what mutual agreement in writing could be reached, whereby part of the site is left for future research.

Medium

- Sites of medium significance require detailed mapping of all the features and the collection of diagnostic artefactual material from the surface of the site. A series of test trenches and test pits should be excavated to retrieve basic information before destruction.

Low

- These sites require minimum or no mitigation. Minimum mitigation recommended could be a collection of all surface materials and/ or detailed site mapping and documentation. No excavations would be considered to be necessary.

In all the above scenarios, permits will be required from the South African Heritage Resources Agency (SAHRA) or the appropriate PHRA as per the legislation (the National

Heritage Resources Act, no. 25 of 1999). Destruction of any heritage site may only take place when a permit has been issued by the appropriate heritage authority. The following table is used to grade heritage resources.

Table 2: Grading systems for identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).

Level		Significance		Possible action
National (Grade I)		Site of National Value		Nominated to be declared by SAHRA
Provincial (Grade II)		Site of Provincial Value		Nominated to be declared by PHRA
Local Grade (IIIA)		Site of High Value Locally		Retained as heritage
Local Grade (IIIB)		Site of High Value Locally		Mitigated and part retained as heritage
General Protected Area A		Site of High to Medium		Mitigation necessary before destruction
General Protected Area B		Medium Value		Recording before destruction
General Protected Area C		Low Value		No action required before destruction

8. Discussion of (Pre-) History of South Africa

Introduction

South Africa has one of the longest sequences of human development in the world. The prehistory and history of South Africa span the entire known life span of human on earth. It is thus difficult to determine exactly where to begin, a possible choice could be the development of genus *Homo* millions of years ago. South African scientists have been actively involved in the study of human origins since 1925 when Raymond Dart identified the Taung child as an infant halfway between apes and humans. Dart called the remains *Australopithecus africanus*, southern ape-man, and his work ultimately changed the focus of human evolution from Europe and Asia to Africa, and it is now widely accepted that humankind originated in Africa (Robbins *et al.* 1998). In many ways this discovery marked the birth of palaeoanthropology as a discipline.Nonetheless the earliest form of culture known in South Africa is the Stone Age. This prehistoric period during which humans widely used stone for tool-making, stone tools were made from a variety of different sorts of stone. For example, flint and chert were shaped for use as cutting tools and weapons, while basalt and

sandstone were used for ground stone. Stone Age can be divided into Early, Middle and Late, it is argued that there are two transitional period.The time frame used for Stone Age period is an approximate and differ from researcher to researcher (see Korsman and Meyer 1999, Mitchell 2002, Robbins *et al.* 1998).

Stone Age

Although a long history of research on the Early Stone Age period of southern Africa has been conducted (Mason 1962, Sampson 1974, Klein 2000, Chazan 2003), it still remains a period were little is known about. These may be due to many factors which includes, though not limited to retrieval techniques used, reliance on secondary, at times unknown sources, and the fact that few fauna from this period have been analysed (Chazan 2003). According to Robbins *et al.*(1998) the Stone Age is the period in human history when stone was mainly used to produce tools. This period began approximately 2.5 million years ago and ended around 200 000 years ago. During this period human beings became the creators of culture and was basically hunters and gatherers, this era is identified by large stone artefacts, such as the pear-shaped hand-axe, cleavers and core tools (Deacon and Deacon, 1999). These tools were probably used to exploit large animals that had died from natural causes, and are usually found near sites where they were manufactured.

The Middle Stone Age overlap with the EIA and possibly began around 100 000 to about 200 000 years ago and extends up to around 35 000 years ago. This period is marked by smaller tools than in ESA. MSA people made a wide range of stone tools from both coarse- and fine-grained rock types, andincluded prepared cores, parallel-sided blades and triangular points hafted to make spears. Sometimes the rocks used for tools were transported from considerable distances, presumably in bags or other containers, as such tool assemblages from some MSA sites tend to lack some of the preliminary cores and contain predominantly finished products like flakes and retouched pieces. During this period there is also evidence of seeking shelters in caves by MSA people, suggesting enduring or semi-enduring settlement in caves, there possibility of making fire in some of these caves have also been suggested.

Microlithic Later Stone Age period began around 35 000 and extend to the later 1800 AD, during this period humans were classified as *Homo sapiens* which means this people had

thinking capabilities equal to that of modern people. According to Deacon (1984), LSA is a period when human being refined small blade tools, conversely abandoning the prepared-core technique. Refined artefacts such as convex-edge scrapers, borers and segments are associated with this period, as well as large quantity of art and ornaments and the practice of purposeful burials with ornaments. The bearer of the rock art sites are probably the ancestors of the San people and are found throughout southern Africa, and most importantly the Cape.

Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce artefacts. Recently, they have been a debate about the use of the name. Other archaeologist have argued that the word "Iron Age" is problematic and does not precisely explain the event of what happen in southern Africa, as such, the word farming communities has been proposed (Segobye 1998). Nonetheless, in southern Africa this period can be divided into two phases. Early (200 - 1000 A.D) and Late Iron Age (1000 - 1850 A.D). Huffman (2007) has indicated that a Middle Iron Age (900 - 1300 A.D) should be included. According to Huffman (2007:361), until the 1960s and 1970s most archaeologists had not yet recognised a Middle Iron age. Instead they began the Late Iron Age at AD 1000. The Middle Iron Age (A.D. 900 - 1300) is characterised by extensive trade between the Limpopo Confluence and the East Coast of Africa. This has been debated, with other researchers, arguing that the period should be restricted to Shashe-Limpopo Confluence.

Historical Period

Since the arrival of the white settlers - c. AD 1650s - in this part of the country, these settlers were largely self-sufficient, relying on cattle/sheep farming and also hunting. Few towns were established and farming remains the most dominant economy.

9. Survey findings

The Archaeological and Cultural Heritage Phase I Impact Assessment for the proposed construction of substation and power line has identified no significant impacts to archaeological material that will need to be mitigated prior construction. Despite that no significant archaeological materials were identified, alternative(s) A and C remain sensitive. Chances of encountering isolated artefacts are considered moderate in those sites. It should be

borne in mind that, none of the materials that can be found here can be considered to be of such significance that can prevent the proposed development from proceeding.

Figure 8: A general View of the area proposed for development, the only structure on site is on the far left (1940/444 – Source NASA).

10. Rating based on desktop study and survey

In addition, to wide range of national resources protected under the National Heritage Resources Act (No. 25 of 1999), Section 3 of the same Act also distinguishes nine Section 3 of the National Heritage Resources Act (No. 25 of 1999) also distinguishes nine criteria for places and objects to qualify as 'part of the national estate if they have cultural significance or other special value …' These criteria are discussed below in light of the findings:

No	Criteria	Commentary
1	Its importance in the community, or pattern of South Africa's history	Although alternative(s) A and C are considered sensitive, any archaeological artifacts that can be found here will be isolated and out of context, and will be given a B rating (see Table 2) at most.
2	Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage	Few Stone tools found in the Cape are considered high, reasons being Stone tools are numerous in the Cape, and many finds are thus common.
3	Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Although sites A and C are less disturbed compared to B, D, E, F and G, they too are disturbed and do not provide potential to yield unique information.
4	Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N/A
5	Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	N/A
6	Its importance in demonstrating a high degree of creative or technical achievement at particular period	N/A
7	Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N/A
8	Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and	N/A
9	Sites of significance relating to the history of slavery in South Africa.	Although there is information of slavery in the area dating from the early 1800, the desktop study predicted that none is expected in the area of the proposed development.

11. Recommendations and Conclusions

Although no significant archaeological materials were identified on the proposed area for substation and power-line, this report due recommend the following:

- Alternative B is the most preferred site, followed by E and then D. This recommendation is based on that these areas are vehemently disturbed by activities related to cultivation. As a result, there is no archaeological material that could have remained *in situ* on these areas. Furthermore, the entire area is plain and do not provide related rocks that can be used for the production of Stone Age tools. There being no significant archaeological materials found within the proposed alternatives, and none are expected (considering the disturbances on site), it is recommended that any of alternative(s) B, E or D be considered. If the developer decides to choose any of these sites, the proposed project can proceed without further archaeological or heritage assessment.
- The area proposed for Alternative(s) A and C are considered sensitive. As aforesaid, access to these sites was limited, and did not adequately cover the proposed site (±600m x 600m for substation and ±5km for powerlines). It is thus recommended that if the developer is to choose any of these sites, the area be subjected to a final Cultural Heritage Walk down phase of the project area, such will ensure that the substation and individual pylons do not impact on archaeological sites (mostly isolated tools), if any. This walk down should also contemplate on servitude and new access roads that will be established for this proposed development. In addition, the exact area for Alternative F was not properly surveyed due to access amongst others. As such, this site should also be subjected to a walk down if is to be preferred. Furthermore, for site alternative G, according to the examination of the area obtained from Google Earth, as well as topographical map, the area on which this alternative is proposed is transformed agriculturally. As a result, there was no topographical feature providing likely occupational sites in the area. In fact, it doesn't appear like they could be any archaeological materials that could have survived such disturbances.

In the event that archaeological materials are unearthed, all construction within a radius of at least 10m of such indicator should cease and the area be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the meantime, it is the responsibility of the contractor to protect the site from

publicity (i.e., media) until a mutual agreement is reached. Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement by SAHRA.

The proposed construction can proceed without further archaeological or cultural heritage assessment.

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APPENDIX 1: SITE SIGNIFICANCE

The following guidelines for determining site *significance*were developed by SAHRA in 2003. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

(a) Historic value

- Is it important in the community, or pattern of history?
- Does it have strong or special association with the life or work of a person, group or organization of importance in history?
- Does it have significance relating to the history of slavery?

(b) Aesthetic value

- Is it important in exhibiting particular aesthetic characteristics valued by a community or cultural group?

(c) Scientific value

- Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage?
- Is it important in demonstrating a high degree of creative or technical achievement at a particular period?

(d) Social value

- Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?

(e) Rarity

- Does it possess uncommon, rare or endangered aspects of natural or cultural heritage?

(f) Representivity

- Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects?
- What is the importance in demonstrating the principal characteristics of a range of

landscapes or environments, the attributes of which identify it as being characteristic of its class?

- Is it important in demonstrating the principal characteristics 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?