

2 December 2020

ECC Environmental
Windhoek
Namibia

For attention: Mr Lester Harker, Environmental Assessment Practitioner

**ARCHAEOLOGICAL ASSESSMENT FOR PROPOSED BUSH THINNING AND CHARCOAL BURNING
PROJECT NEAR KOMBAT, OTJOZONDJUPA REGION**

DECLARATION

I hereby declare that I do:

- (a) have knowledge of and experience in conducting assessments, including knowledge of Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as regulations and guidelines that have relevance to the proposed activity;
- (b) perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- (c) comply with the aforementioned Act, relevant regulations, guidelines and other applicable laws.

I also declare that I have no interests or involvement in:

- (i) the financial or other affairs of either the applicant or his consultant
- (ii) the decision-making structures of the National Heritage Council of Namibia.

A handwritten signature in black ink, appearing to read 'J. Kinahan', is written over a light blue rectangular background.

John Kinahan, Archaeologist

EXECUTIVE SUMMARY

An archaeological/heritage reconnaissance survey was carried out on the farm Gai-Kaisa in the Otjozondjupa Region. The field survey did not locate any archaeological sites, but did record two recent grave sites. It is recommended that the project adopt the attached Chance Finds Procedure in the event of encountering buried archaeological remains in the course of development work. It is pointed out that the grave sites are protected in terms of the Burial Places Ordinance (27 of 1966).

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1. INTRODUCTION

1.1 Background

Environmental Compliance Consultancy (ECC) is carrying out an environmental assessment of the farm Gai-Kaisa (159) of the Otjozondjupa Region for the purposes of a bush-thinning and charcoal production project. Land-use changes are listed in the Environmental Management Act (2007) as activities requiring environmental assessment and the issuance of an Environmental Clearance Certificate.

Archaeological remains in Namibia are protected under the National Heritage Act (2004) and National Heritage Regulations (Government Notice 106 of 2005), and ECC has accordingly appointed the undersigned, J. Kinahan, archaeologist, to carry out an assessment of the project. A field visit to the site was carried out on 19th and 20th November 2020.

1.2 Terms of Reference

The primary task of the archaeological assessment reported here was to identify sensitive archaeological/heritage sites that could be affected by the proposed exploration and mining activities. The archaeological/heritage assessment forms the basis of recommended management actions to avoid or reduce negative impacts, as part of the environmental assessment. The study is intended to satisfy the requirements of the relevant legislation and regulations, in which the process of review and clearance may require further, or different mitigation measures to be adopted.

Specifically, the archaeological/heritage assessment addresses the following primary elements:

1. The identification and assessment of potential impacts on archaeological/heritage resources, including historical sites arising from the proposed exploration and mining activities.
2. The identification and demarcation of highly sensitive archaeological/heritage sites requiring special mitigation measures to eliminate, avoid or compensate for possible destructive impacts.
3. Formulation and motivation of specific mitigation measures for the project to be considered by the authorities for the issuance of clearance certificates.
4. Identify permit requirements as related to the removal and/or destruction of heritage resources.

1.3 Assumptions & Limitations

Archaeological assessment relies on the indicative value of surface finds recorded in the course of field survey. Field survey results are augmented wherever possible by inference from the results of surveys and excavations carried out in the course of previous work in the same general area as the proposed project, as well as other sources such as historical documentation. Based on these data, it is possible to predict the likely occurrence of further archaeological sites with some accuracy, and to present a general statement (see Receiving Environment, below) of the local archaeological site distribution and its sensitivity. However, since the assessment is limited

to surface observations and existing survey data, it is necessary to caution the proponent that hidden, or buried archaeological or palaeontological remains might be exposed as the project proceeds.

2. LEGAL REQUIREMENTS

The principal instrument of legal protection for archaeological/heritage resources in Namibia is the National Heritage Act (27 of 2004). Part V Section 46 of the Act prohibits removal, damage, alteration or excavation of heritage sites or remains. Section 48 *ff* sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. Section 51 (3) sets out the requirements for impact assessment. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council. Heritage sites or remains are defined in Part 1, Definitions 1, as “any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface”.

It is important to be aware that no specific regulations or operating guidelines have been formulated for the implementation of the National Heritage Act in respect of archaeological assessment. However, archaeological impact assessment of large projects has become accepted practice in Namibia during the last 25 years, especially where project proponents need also to consider international guidelines. In such cases the appropriate international guidelines are those of the World Bank OP/ BP 4.11 in respect of “Physical Cultural Resources” (R2006-0049, revised April 2013). Of these guidelines, those relating to project screening, baseline survey and mitigation are the most relevant.

Archaeological/heritage impact assessment in Namibia may also take place under the rubric of the Environmental Management Act (7 of 2007) which specifically includes anthropogenic elements in its definition of environment. The List of activities that may not be undertaken without Environmental Clearance Certificate: Environmental Management Act, 2007 (Govt Notice 29 of 2012), and the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 (Govt Notice 30 of 2012) both apply to the management of impacts on archaeological sites and remains whether these are considered in detail by the environmental assessment or not.

Graves are protected under the Burial Places Ordinance (27 of 1966) and permission is required in the event of development work encroaching on such sites.

3. THE RECEIVING ENVIRONMENT

Farm Gai-Kaisa (159) lies 20km SE of Kombat in the northern Otjozondjupa Region. The farm is characterized by typical tree and shrub savanna with a large component of *Combretum imberbe* woodland on the headwaters of two well developed drainage lines, both northern tributaries of the Omatako omuramba. Between the drainage

lines the terrain is relatively subdued, with outcropping calcretes and dolomites of the Otavi Group overlain by shallow sandy loam soils.

Figure 1 shows the location of Gai-Kaisa in relation to known archaeological sites and proclaimed National Monuments. There has been little recent archaeological field research carried out in this area, other than a corridor survey for a NamPower transmission line (now in place) running close to the northern boundary of the property. The survey did not record any archaeological sites in this vicinity. Figure 1 shows a relatively dense distribution of archaeological sites to the SW of Gai-Kaisa and few if any records from the area to the east of the property. Although this pattern confirms the archaeological significance of the high density distribution, the existence of these records also reflects the fact that more archaeological work has been carried out on commercial farmland rather than communal farmland. In other words, the eastern parts of the Otjozondjupa Region are disproportionately under researched and the available data do not therefore provide a reliable reflection of the local archaeology.

The known archaeological/heritage record of this region spans the entire upper Pliocene to recent historical period. Early hominoid fossil remains were recovered from a limestone breccia at Berg Aukas¹ and there have been numerous investigations of sites yielding important palaeoclimatic evidence in this area². Little is known of the upper Pleistocene and Holocene human occupation of the area, although the accumulated site records shown in Figure 1 demonstrate its likely importance. A systematic survey of rock art on commercial farms in the Otjozondjupa Region³ yielded a number of sites indicating the presence of hunter-gatherer communities in this area during the last 5000 years. Historical and ethnographic research on hunter-gatherer populations in this region points to the existence of widespread social networks which probably formed part of trade routes that were used by recent indigenous and colonial peoples⁴. The 19th century hunter and trader Axel Eriksson (1846

¹ Conroy, G.C., Pickford, M., Senut, B., Van Couvering, J. & Mein, P. 1992. *Otaviapithecus namibiensis*, first Miocene hominoid from southern Africa. *Nature* 356: 144–8.

² e.g. Sletten, H.R., Railsback, L.B., Liang, F., Brook, G., Marais, E., Hardt, B.F., Cheng, H. & Edwards, L.R. 2013. A petrographic and geochemical record of climate change over the last 4600 years from a northern Namibia stalagmite, with evidence of abruptly wetter climate at the beginning of southern Africa's Iron Age. *Palaeogeography, Palaeoclimatology, Palaeoecology* 376: 149–62. See also Deacon, J. and Lancaster, N. 1988. *Late Quaternary Palaeoenvironments of Southern Africa*. Clarendon, Oxford.

³ Breunig, P. 1986 (ed.) *Ernst-Rudolf Scherz, Felsbilder in Südwest-Afrika Vol. 3. Die Malereien*. Zusammenfassungen. Köln Wien: Böhlau Verlag.

⁴ Kose, E, 2009. New light on iron-working groups along the middle Kavango in northern Namibia. *South African Archaeological Bulletin* 64: 130 – 147; Kose, E. and Richter, J. 2007. The prehistory of the Kavango people. *Sprache und Geschichte in Afrika* 18: 103-129; see also Wiessner, P. 1994. The pathways of the past: !Kung San hxaro exchange and history. In: Bollig, M. & Klees, F. eds *Überlebensstrategien in Afrika. Colloquium Africanum* 1: 101 – 124. Cologne, Heinrich Barth Institute, and Wilmsen, E. 1989. *Land filled with flies: a political economy of the Kalahari*. University of Chicago Press. 402pp.

– 1901) is buried at Rietfontein north of Gai-Kaisa⁵, and the *omiramba* drainage lines which also bisect the Gai-Kaisa property were central to Ovaherero settlement and landuse in the 18th and 19th centuries⁶.

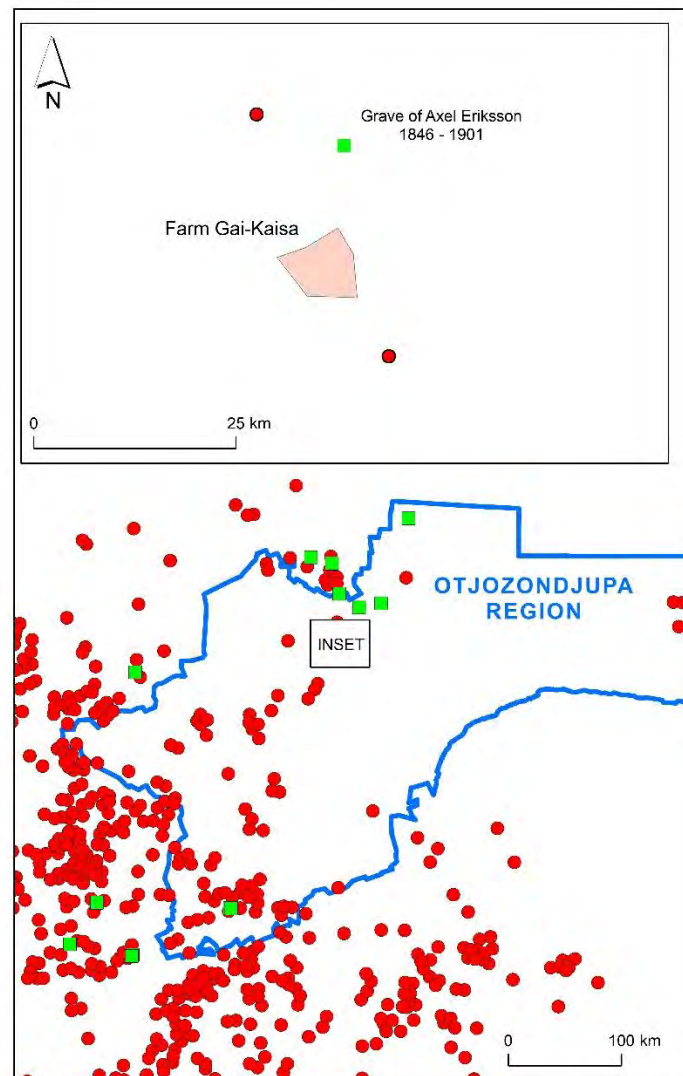


Figure 1: The location of Farm Gai-Kaisa in the Otjozondjupa Region shown in relation to known archaeological sites (red circles) and proclaimed National Monuments (green squares).

⁵ Vogt, A. 2004. *National Monuments in Namibia: An inventory of proclaimed national monuments in the Republic of Namibia*. Windhoek: Macmillan.

⁶ Lindholm, K.-J. 2006. *Wells of Experience: A pastoral land-use history of Omaheke, Namibia*. Studies in Global Archaeology 9, University of Uppsala.

Earlier surveys provide an indication of the archaeological importance of this general area, although the intensity of survey varies considerably and large parts of the area are archaeologically unknown, including that of Gai-Kaisa itself. The general sequence and archaeological characteristics of the area under consideration, based on current knowledge, are as follows:

- a. **Pliocene and early Pleistocene (ca. 10my to 0.128my; including OIS 6, 7, 19 &c):** represented by limestone breccia material as well as surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action, and seldom occurring in sealed stratigraphic context.
- b. **Mid- to upper Pleistocene (ca. 0.128my to 0.040my; OIS 3, 4 & 5a-e):** represented by dense surface scatters and rare occupation evidence in sealed stratigraphic context, with occasional associated evidence of food remains.
- c. **Late Pleistocene to late Holocene (ca. 0.040my to recent; OIS 1 & 2):** represented by increasingly dense and highly diverse evidence of settlement, subsistence practices and ritual art, as well as grave sites and other remains.
- d. **Historical (the last ca. 250 years):** represented by remains of crude buildings, livestock enclosures, wagon routes and watering points, as well as graves, comprising small cemeteries near farm settlements or isolated burial sites.

In summary, Pliocene and early Pleistocene sites are associated with sinkholes, exhumed breccias, pans, outwash gravels, drainage lines and river gravels. These sites are difficult to detect and because they are easily overlooked in the course of development work and are often damaged or destroyed in the process. Mid- to upper Pleistocene sites occur in similar contexts to the earlier material, but hill foot-slopes and outcrops of rock suitable for artefact production (e.g. chert, fine-grained quartzites) are also focal points. Late Pleistocene to late Holocene sites occur in almost every terrain setting, with the exception of very steep slopes and mountain tops. These sites often exhibit locally integrated distribution patterns which allow some reconstruction of land-use and subsistence. Major Holocene sites include stratified occupation deposits, containing an array of organic and inorganic residues. Heritage sites relating to the historical period relate mainly to early mining and farming settlement in the vicinity of Otavi, Grootfontein, Tsumeb and outlying villages.

3.2 Observations

A reconnaissance survey of Gai-Kaisa traversed the drainage lines of the eastern and southern margins of the property and, following existing farm tracks, traversed the entire property from east to west at several points. No archaeological sites such as described above were found in the course of the survey, although two grave sites of recent date were recorded in the near vicinity of the farmhouse. These are shown in Figures 2 and 3.



Figure 2: Grave of Rosmarie (1948) and Ernst Adalbert (1963) von Goldfus.



Figure 3: Grave of Theodor, farmworker (1966), with headstone circled.

The grave of Rosmarie (1948) and Ernst Adalbert (1963) von Goldfus (Figure 2), has a dolerite headstone and is surrounded by a fenced enclosure about 200m SW of the farmhouse (-19.89653S 17.83071E). The grave and its surroundings are clearly demarcated and adequately protected. The site is not considered to be vulnerable to disturbance. However, the grave of Theodor (Figure 3), a farmworker (1966) located approximately 240m NE of farmhouse (-19.89643S 17.83109E) is a different matter. The grave is marked by a crude concrete crucifix (now fallen) and the entire site (which may contain more than one grave) has been undermined by animal burrows. The site lies approximately 250m N of what appears to be an abandoned workers' compound. This site is considered to be vulnerable and merits enclosure as in the case of the previous site.

4. CONCLUSIONS & RECOMMENDATIONS

On the basis of the field survey reported here Gai-Kaisa is not considered to be archaeologically sensitive. No archaeological sites requiring further investigation or mitigation were located in the course of the survey. It is however recommended that the proponent should adopt the Chance Finds Procedure in Appendix 1 as part of the project Environmental Management Plan.

The two grave sites located on the farm are protected in terms of the Burial Place Ordinance (27 of 1966) which was enacted to "prohibit the desecration or disturbance of graves in burial places and to regulate matters relating to the removal or disposal of dead bodies". Permission will be required if the proposed development of the farm will encroach on the grave sites.

Appendix 1: Chance Finds procedure

Areas of proposed development activity are subject to heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found in the course of development work. The procedure set out here covers the reporting and management of such finds.

Scope: The “chance finds” procedure covers the actions to be taken from the discovery of a heritage site or item, to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance: The “chance finds” procedure is intended to ensure compliance with relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): “*a person who discovers any archaeological object must as soon as practicable report the discovery to the Council*”. The procedure of reporting set out below must be observed so that heritage remains reported to the NHC are correctly identified in the field.

Responsibility:

Operator	To exercise due caution if archaeological remains are found
Foreman	To secure site and advise management timeously
Superintendent	To determine safe working boundary and request inspection
Archaeologist	To inspect, identify, advise management, and recover remains

Procedure:

Action by person identifying archaeological or heritage material

- a) If operating machinery or equipment stop work
- b) Identify the site with flag tape
- c) Determine GPS position if possible
- d) Report findings to foreman

Action by foreman

- a) Report findings, site location and actions taken to superintendent
- b) Cease any works in immediate vicinity

Action by superintendent

- a) Visit site and determine whether work can proceed without damage to findings
- b) Determine and mark exclusion boundary
- c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by archaeologist

- a) Inspect site and confirm addition to project GIS
- b) Advise NHC and request written permission to remove findings from work area

- c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

- a) Actions as above
- b) Field inspection by archaeologist to confirm that remains are human
- c) Advise and liaise with NHC and Police
- d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

Appendix 2: Burial Place Ordinance 27 of 1966

Republic of Namibia
Annotated Statutes

Burial Place Ordinance 27 of 1966

(OG 2728)

came into force on date of publication: 10 June 1966

ORDINANCE

To prohibit the desecration or disturbance of graves in burial places and to regulate matters relating to the removal or disposal of dead bodies.

*(Assented to 3rd June, 1966)
(English text signed by the Administrator)*

ARRANGEMENT OF SECTIONS

1. Definitions
2. Desecration of graves and removal of bodies
3. Short title

BE IT ORDAINED by the Legislative Assembly for the Territory of South West Africa as follows:-

Definitions

1. In this ordinance, unless the context indicates otherwise -

“Administrator” means the Administrator of the Territory of South West Africa;

“body” means any human dead body including the body of any still-born child;

“burial place” means any burial ground, whether public or private, or any place wherein one or more bodies are buried, cremated or otherwise disposed of or intended to be buried, cremated or otherwise disposed of.

Desecration of graves and removal of bodies

2. (1) No person shall desecrate or destroy a grave in a burial place or, without the written permission of the Administrator, disturb or cause such grave to be disturbed.

(2) Except where the exhumation of a dead body is ordered in terms of any other law for the purposes of forensic medicine or public health and subject to the provisions of section 222 of the Municipal Ordinance, 1963 (Ordinance 13 of 1963) no person shall exhume or cause to be exhumed or disturb or cause to be disturbed or remove or cause to be removed a body or the mortal remains of a body buried in a burial place without the written permission of the Administrator or unless such precautions are observed as may be prescribed by the Administrator or any medical practitioner appointed by him: Provided that no person shall be guilty of a contravention of this sub-section who temporarily of necessity disturbs or causes to be disturbed a body or the mortal remains of a body which is buried for the purpose of burying another body in the same grave.

**[The Municipal Ordinance 13 of 1963 has been replaced
by the Local Authorities Act 23 of 1992.]**

(3) No person shall, except with the permission of the Administrator, in any way disturb, damage, remove or destroy a grave, monument, gravestone, cross, inscription, rail, enclosure, chain or erection of any kind whatever, or part thereof in any burial place.

(4) Any person acting in contravention of the provisions of this ordinance shall be guilty of an offence and shall on conviction be liable to a fine not exceeding *one hundred* rand or, in default of payment, to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

Short title

3. This ordinance shall be called the Burial Place Ordinance, 1966.