

CULTURAL HERITAGE IMPACT ASSESSMENT OF THE KAT DEVELOPMENT SITE

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21 July 2008

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1836 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A cultural heritage survey of the KAT radio telescope development site near Carnavron, in the Northern Cape Province, identified five heritage features within the spatial boundaries of the proposed development. Only one of these sites is situated directly within a development zone. However, it is rated as having a low significance as it represents only two stone flakes which are not situated in an archaeological context. The other four sites identified, will need mitigation if future plans entail alteration or disturbance of them. However, the present development poses no immediate threat to them. There is therefore, no archaeological reason why development may not proceed as planned. However, attention is drawn to the South African National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) which requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency. Three of the identified heritage sites have limited tourism potential. A management plan should be designed and implemented should the developers deem it wise to develop them as part of the visitors' experience.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins
Type of development:	Radio telescope site
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)

1.1. Details of the area surveyed

Footprint: See Figures 1 and 2.

Current land use: open land used for grazing by sheep.

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

Large portions of the Northern Cape Province have been thoroughly surveyed for heritage sites by the Archaeology Department of the McGregor Museum in Kimberley (Beaumont *et al.*, 1990). However, most of these areas occur to the north and north east of the present project area. Dr Janette Deacon, formerly of the National

Monuments Council, surveyed the area to the immediate north of the project area in her research on /Xam San archaeology and symbolic use of landscape (Deacon, 1986 and 1988; Deacon and Dowson 1996; Deacon and Foster 2005). However, the project area itself has never been surveyed for any sites.

The available evidence suggests that this area was part of the heartland of the /Xam San during the end of the 18th century and beginning of the 19th century. There is no evidence that groups other than Later Stone Age San lived in this immediate area prior to the colonial era. The area is too arid to allow food producing societies (i.e. pastoralists and agropastoralists) to have settled here permanently. However, with the expansion of the Northern Cape frontier during colonial times the area would have been traversed by various groups such as bandits of coloured descent, the Trek Boers many of whom took Khoi wives, Khoi groups such as the Griqua and Koranna, as well as a group of Xhosa-speaking refugees whom settled in the Karee Mountains to the north west of the project area. All these groups competed with the San for scarce resources, and eventually the San were reduced to an existence based on livestock raiding. Sadly, these forces associated with colonialism eventually led to the genocide of the /Xam and other San groups in the Northern Cape. It is believed that almost 100 000 San were killed in the Karoo between the 17th and 19th centuries (Skotness, 1996). All that remains of the Karoo /Xam today is almost 12 000 pages of unpublished manuscripts detailing their exceptionally rich folklore and belief systems.

The project area is situated to the immediate south of the region inhabited by the famous /Xam informants, whom the linguist Wilhelm Bleek and his sister in law Lucy Lloyd interviewed in the 1870's and 1880's. As a result of these interviews, we now have a comprehensive understanding of southern San folklore and beliefs. In addition, the present academic understanding of San rock art is based to a large extent on the testimonies of /Xam people who lived in this area. Their testimonies have given a rare insight into the way in which the /Xam perceived their environment as well as heritage features such as rock engravings (Deacon and Foster 2005).

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the South African Heritage Resource Agency (SAHRA) inventory of heritage sites. Unfortunately this database is incomplete and of only limited use.

In addition, a ground survey of the proposed developments following standard and accepted archaeological procedures was conducted.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility during the site visit was good.

3.2.2 Disturbance

No disturbance of any archaeological deposits or sites were observed.

3.3 Details of equipment used in the survey

GPS: Garmin Etrek.

Digital cameras: Canon Powershot A460.

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: Northern Cape Province

Town: Carnavron

4.2 Description of the general area surveyed

The area surveyed consisted of open land used for sheep and cattle grazing. There are no buildings or other structures on the site.

4.3 Description of sites

Five heritage sites have been identified on the surveyed property (Table 2). These are all either Later Stone Age or historical period sites. None of these sites are rated as having either national or provincial status. Site one, which consists of only two stone flakes, have limited archaeological or heritage value and is rated as low significance. The remaining four sites are rated as medium to high significance and some mitigation would be necessary before alteration or destruction can be implemented. A more detailed description of each site is given below.

Table 2. Heritage sites and co-ordinates at KAT

No	Heritage Sites	Coordinates
1	Two Later Stone Age flakes out of archaeological context	S 30 45.136' E 021 25.788'
2	Two small stone circles adjacent each other	S 30 45. 092' E 021 25.943'
3	Broken stone circle with stone flake	S 30 44.685' E 021 26.188'
4	Historical sheep pen	S 30 44. 667' E 021 26.081'
5	Historical rock engraving on boulder	S 30 44.559' E 021 25. 877'

4.3.1 Site 1: Later Stone Age flakes

Site one occurs directly on the area where development is proposed. However, this site only consists of two Later Stone Age flakes and none of this material is in archaeological context (Figure 1). Their heritage value is therefore low (see Table 3) and need no further recording or mitigation for development purposes.



Figure 1. Two Later Stone Age flakes made from lydianite or indurated shale

4.3.2 Site 2: Two small stone circles adjacent to each other

Two small stone circles adjacent to each other and not exceeding 1 m in diameter (Figure 2) was found. These may be San camping areas. Similar stone circles have been recorded further north at Jagt Pan near the Karee Mountains (Beaumont and Morris, 1990) although these had a larger diameter. These sites are not highly rated in terms of heritage values, but are given medium significance. They would therefore need mitigation before destruction or alteration. Fortunately this site is not situated on any area where building or development will occur according to KAT planning.



Figure 2. Two complete stone circles adjacent to each other

4.3.3 Site 3: Broken stone circle and Later Stone Age flake.

A broken stone circle, containing a stone flake, most probably represents a San camp site (Figure 3). The /Xam San who lived in this area were nomads and only frequented areas sporadically. Although interesting, this site is only of medium significance but will need mitigation before alteration or disturbance. Fortunately, this site is not situated in the path of any development on the property.



Figure 3. San camping site represented by a broken stone circle

4.3.4 Historical period sheep pen

A sheep pen built with stones and situated adjacent to a large dolerite boulder (Figure 4) was discovered. Pens such as these were built by the early European sheep farmers in the area and were used until recently. Many of these features may be at least 250 years old. Although of no particular importance this feature is rated as medium significance and will need mitigation before removal or alteration. Fortunately this site is not situated in any area where development is planned in the near future.



Figure 4. Historical period sheep pen built with stone and situated adjacent to a large dolerite boulder

4.4.5 Historical period rock engravings

One dolerite boulder was decorated with scratch engravings depicting a man and a woman (Figure 5). Both figures are dressed in clothes typical of the colonial period or early 20th century in South Africa. The man had the name Shalk engraved under him and the women was given the name Mieta. They were most probably made by a sheep herder at the turn of the 20th century. Above the human depictions is a very faded engraving of a horse. Similar colonial period rock engravings do occur near the Sneeu Berg Mountains and has been the subject of intensive studies (Van der Merwe, 1984).



Figure 5. Historical period rock engraving. Note the wide rimmed skirt worn by the lady depiction

4.4 Dating the findings

None of the heritage sites have been formally dated by means of radiocarbon dating. However, the sheep pen and rock engraving site most probably belong to the late 19th and early 20th centuries. The stone circles may be as old as a couple of hundred years.

4.5 Summary of findings

Five heritage sites of low to medium significance have been located. Only one site is situated directly within a development zone, but this site is of low significance and development may proceed without any mitigation. The remaining four sites are all of medium significance, which require mitigation in the event of the development or alteration of the site. However, none of these sites are situated within a development node as specified in the KAT site plan.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

The heritage sites are rated as low to medium significance.

5.1 Field Rating

Generally protected C for site one and generally protected A for the other four sites (Table 2).

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

6 RECOMMENDATIONS

The development may proceed in terms of heritage values in the vicinity of site one. However, any development in the vicinities of sites two to five will need mitigation by SAHRA. Fortunately these sites are all situated in an area where no such development is planned in the near future. Nevertheless, should any of these sites be developed for tourism purposes, a heritage management plan must be designed and implemented.

7 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Any construction closer than 10 metres from heritage sites two to five must be stopped and mitigation must be facilitated through SAHRA.

8 MAP

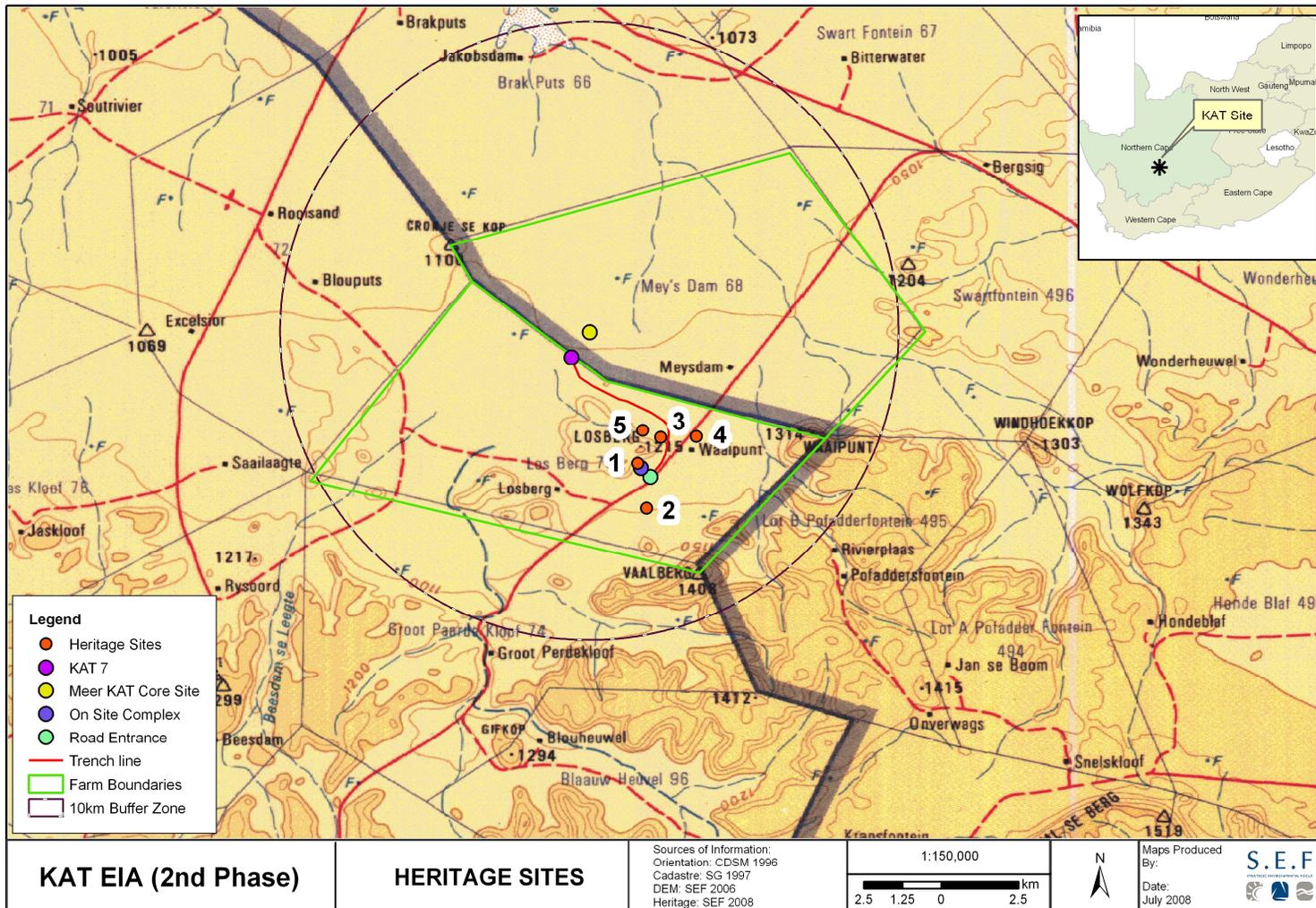


Figure 6. Heritage sites on the KAT property

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