

**CULTURAL HERITAGE RESOURCES  
IMPACT ASSESSMENT OF  
PROPOSED MINING AREA ON THE  
FARM LEEUWKOP 402 JQ NORTH -WEST  
PROVINCE**



*Kettle from Ga-Pitse site hanging in a tree*



**AFRICAN HERITAGE CONSULTANTS CC**

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**DR. UDO S KÜSEL**

Tel/fax: (012) 567 6046

Cell: 082 498 0673

E-mail: udo.heritage@absamail.co.za

P.O. Box 652  
Magalieskruin  
0150

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# **CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT OF PROPOSED MINING AREA ON THE FARM LEEUWKOP 402 JQ NORTH -WEST PROVINCE**

## **1. DEFINITION**

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of palaeontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

## **2. PROTECTED SITES IN TERMS OF THE NATIONAL HERITAGE ACT, Act. NO. 25 OF 1999**

The following are the most important sites and objects protected by the National Heritage Act:

- a. Structures or parts of structures older than 60 years
- b. Archaeological sites and objects
- c. Palaeontological sites
- d. Meteorites
- e. Ship wrecks
- f. Burial grounds
- g. Graves of victims of conflict
- h. Public monuments and memorials
- i. Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette
- j. Any other places or object which are considered to be of interest or of historical or cultural significance
- k. Geological sites of scientific or cultural importance
- l. Sites of significance relating to the history of slavery in South Africa
- m. Objects to which oral traditions are attached
- n. Sites of cultural significance or other value to a community or pattern of South African history

## **3. METHODOLOGY**

All relevant maps and documents on the site were studied. The site was visited and evaluated by inspection through walking through the area.

## 4. RESULTS

Later Iron Age people inhabited selected portions of the whole of the area under investigation, the period possibly covering the period 1600 to mid twentieth century. The format of the habitation is in the form of stone walled villages with animal pens in central areas. These villages are mainly situated at the foot of the granite hills that are the main geological formations in the area, but also occur on the hillsides where topography allows such settlement.

The proposed mining development area lies in the granite belt of the so-called Swartkoppies Mountain range, which lies just north of the Magaliesberg Mountain and stretches from Pretoria in the east to Pilansberg in the northwest. At the foot of the granite outcrops there are deep clay soils. On the outcrops combretum trees dominate with thorn trees and sweet grasses in the flat areas. This created the ideal habitat for Later Iron Age farmers. The granite hills provided ideal settlement sites where as the sweet veld provided excellent grazing for cattle and small stock.

The proposed granite mining area has a large number of Later Iron Age settlement sites. These sites are associated with early Tswana settlement in the area, and are easily recognised because of the extensive stonewalling. The settlement sites normally consist of a number of large cattle enclosures surrounded by scalloped walling for the living area. Higher stonewalling of one metre plus, symbolising higher status typify the central settlements. On the outer rim of these central settlements lower walling of seldom more than a single layer of stones is typical of the commoners settlement. Surrounding these settlements were the fields for maize, sorghum, millet and other crops. These cultivated areas are recognizable by the dense *Dichostachys cinerea* vegetation on these sites. This shrub or small tree is a pioneer plant, which grows well on disturbed soils and is an excellent indicator of archaeological sites in the bushveld regions (Van Wyk B and Van Wyk P. 1997: 500).

The most intensive archaeological work on these sites was done by Revil Mason at sites like Olifantspoort, Klipriviersberg, Buispoort, Broederstroom etc. (Mason R 1962: 371e.v.). His work was followed by Julius Pistorius (1992), T.M. Evens (1984), Maggs (1976) and others.

These sites are also similar to the sites on Hoekfontein and Elandsfontein, which are presently recorded by Küsel.

The Swartkoppies granite belt most probably has the denseness occurrence of Later Iron Age sites in South Africa. In a preliminary survey of archaeological sites in the North West Province Küsel recorded over 4 000 sites.

The sites on Leeuwkop are concentrated on the southern side of the site. A substantial number of sites also occur in the northern part of the site. Granite mining has taken place here and destroyed a number of the sites. Later settlement by Tswana people since 1900, in the area has also destroyed stonewalls, especially where stonewall were re used for the construction of large cattle enclosures; building of stonewalls for houses and foundations. These people were resettled east of the present site in villages in the 1950/60 and only ruins of these settlements remain.

The dense vegetation of especially *Dichostachys cinerea* made the documentation of the sites extremely difficult. There may be as many as a100 or more individual sites on the proposed mining area.

For detail on the archaeological and historic sites recorded see photographs and maps. Dr J. van Schalkwyk recorded some 54 Later Iron Age sites on the farm Wonderkop 400 JQ just west of Leeuwkop. He also recorded a large number of similar sites on the farms Beestkraal 290 JQ and Elandsheuwel 282 JQ north west of Leeuwkop.

## **5. Conclusion**

The proposed granite mining area on the farm Leeuwkop 402 JQ is rich in Later Iron Age sites associated with early Tswana settlements. The dense vegetation made the recording of individual sites very difficult. There are also the remains of historic sites dating to 1900 – 1950, which can yield valuable historic data.

Owing to the extent of the area under investigation it is nearly impossible to indicate all areas affected by archaeological remains without spending a long period of time on the premises. It is therefore suggested that the whole area to be mined should be delineated, including expected sites for stone preparation, water reservoirs and access roads. This will decrease the time consumed to do the in-depth survey for heritage remains.

## **6. Recommendations**

It is recommended that:

- the previous granite mining site and the remains of the damaged archaeological sites be recorded to create a record of damage done for future reference
- that a detailed phase II archaeological investigation is done for each new mining site before mining commences
- that at least a representative group of archaeological sites be identified and protected against future destruction in a conservation area within the allocated mining area
- that a heritage management plan be compiled for the area
- that the oral history of people who have lived on the site be recorded

## **7. SITE DATA**

<b>Owners contact details:</b>
Bakwena ba-Mogopa Traditional Authority, held in trust by Minister of Land Affairs, Itumeleng Kastom (Traditional Clerk), Bethanie
<b>Developers contact details:</b>
Keeley Granite (Pty) Ltd, Paul Venter, PO Box 4878, Brits 0250, Tel: 083 653 9724, Fax: 012 250 0087

<p><b>Consultants contact details:</b> Eco Consult Inc. J. C. van Rooyen, PO Box 9625, Centurion 0046, Tel: 012 807 3348, Fax: 012 807 3433</p>
<p><b>Type of development (e.g. low cost housing project, mining etc.)</b> Mining</p>
<p><b>Whether rezoning and/or subdivision of land is involved:</b> Not Involved</p>
<p><b>Full location of Province, Magisterial District/Local Authority, property (e.g. farm, erf name and number):</b> Portions of the farm Leeuwkop 402 JQ, ODI II District, Rustenburg Local Municipality, North West Province.</p>
<p><b>Location map must have the polygon of the area to be surveyed on it and full geographical coordinates for all relevant points and where applicable indication of the area to be developed (footprint):</b></p>

## 8. REFERENCES

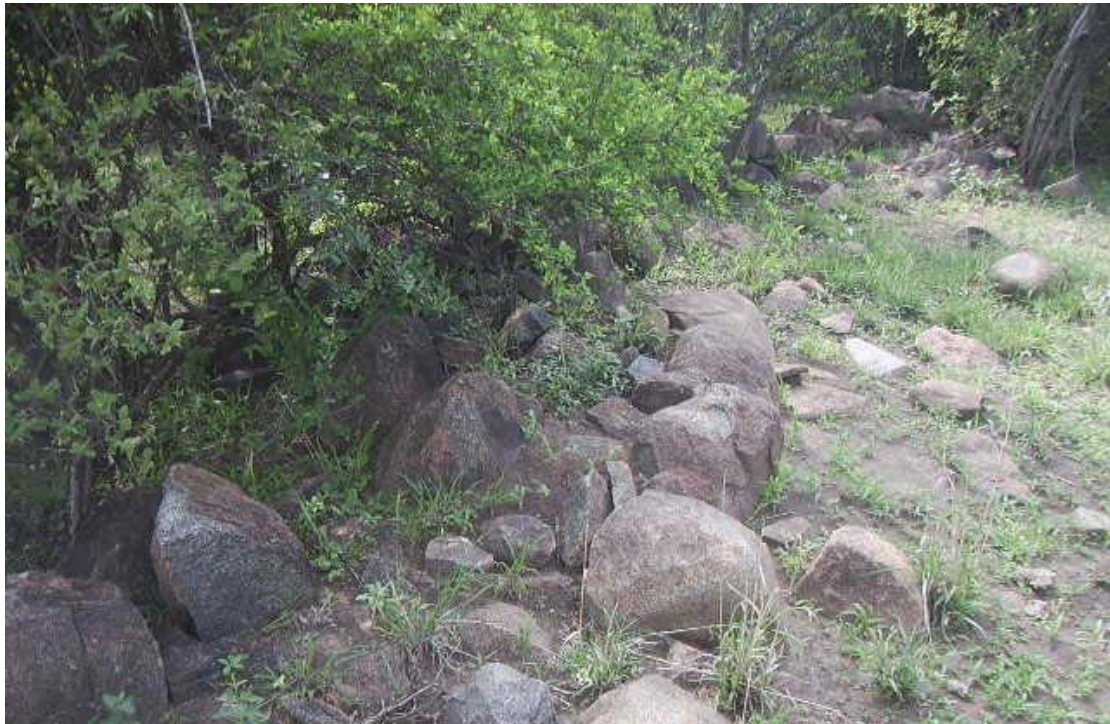
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- Van Wyk B. & Van Wyk P. 1997. Field guide to Trees of Southern Africa – Struik Cape Town.

## **9. PHOTOGRAPHS**

- See photographs and description attached (see pages 7 – 20).

## **10. MAP**

- Map of area see page 21



*Site 1 in table of GPS readings. Typical low terrace walling defining habitation quarters of Later Iron Age site. This type of walls occurs in a profuse manner all over the area investigated. Similar walling is not repeated in the photographic record presented because of obvious reason. This type of walling only become significant when mapped in relationship with other walls as well as other features in the landscape.*



*Site 4 in table of GPS readings. Enclosure that appears to be an animal enclosure owing to the dung deposit in the enclosed space.*



*Site 10 in table of GPS readings. Byre in complex of three enclosures. These are modern and may even be still in use although they appear to be abandoned at present. They are also located on a later Iron Age Site.*



*Site 11 in table of GPS readings. Byre in complex of three enclosures. These are modern and may even be still in use although they appear to be abandoned at present. They are also located on a later Iron Age Site*





*Site 15 in table of GPS readings. Exotic plants, "Queen of the night" and "Sisal", indicate the main dwelling in a complex from where people were relocated from the hill known as "Ga-Pitse" circa 1950.*



*Site 24 in table of GPS readings. Pomegranate on Ga-Pitse site.*



*Site 16 in table of GPS readings. Remains of stonewall dwelling on "Ga-Pitse" site. Dressing of stone indicates European influence.*

Site 17 in table of GPS readings. Remains of a dwelling built from home-fired clay



bricks with well-built and plastered veranda walls. As with the dressed stone the home-fired clay bricks again show European influence in building technique.



*Site 25 in table of GPS readings. Two of four stone cairns on the Ga-Pitse site. It does not appear as if these were formed by collection for recycling but rather as if stone was brought in for the specific function of building a cairn.*



**Site 26 in table of GPS readings. Part of a "slate" that was used for writing practice in schools in the past. It therefore may indicate that the site that it was found on, next to the foundation of a large structure, may have been a school.**



*Site 29 in table of GPS readings. Unknown structure associated with a second set of modern animal enclosures. This set of modern structures is also situated on a later Iron Age site.*



*Site 31 in table of GPS readings. Later Iron Age site on exposed eastern granite shoulder of "Manyawenyawe" hill. The character of this site differs from that of the sites situated at the foot of the hill.*



**Site 32 in table of GPS readings. One of ten-grain bin foundations in a collective group of the site situated on exposed eastern granite shoulder of Manyawenyawe hill.**



***Site 34 in table of GPS readings. Large boulder topped with a collection of small stones. This rock is situated at the entrance of a Later Iron Age site on a northeastern shoulder of Manyawenyawe hill. In Sekhukhuneland similar large boulders were found. According to Pedi tradition a person who was convicted to be executed for murder is buried at such a rock. Each person who passes the rock***

*picks up a stone and through it on top of the rock (grave) to punish the deceived person (Küsel U.S. 2006)*



*Site 41 in table of GPS readings. Large Later Iron Age Site at southern extremity of the hill known as "Gata-La-Tshwene".*



*Site 49 in table of GPS readings. Stone walling of Later Iron Age site in the northern section of the area of investigation. It is difficult to evaluate these walls as the vegetation cover inhibits proper investigation.*



*Site 51 in table of GPS readings. Large midden deposit of a Later Iron Age site in the northern section of the area under investigation. It has been bisected by the access road*



*Site 53 in table of GPS readings. Quarry activities on a Later Iron Age Site have to a large degree destroyed a large portion of the site.*



*Site 60 in table of GPS readings. Later Iron Age site on top of hill with well constructed dry stonewalling. This appears to be another generation of Later Iron Age type-sites in the area.*





*Site 63 in table of GPS readings. Animal enclosure on a site between two hills. These are relatively rare in the area and either indicates a low density of pastoralist practise or that byres were constructed with wooden material.*

Date	No	Description	South deg.	East deg.
19/10	1	<i>Site at east foot of Ga-Serutube. Typical low terrace walling defining habitation quarters of Later Iron Age site. This type of walls occur in a profuse manner all over the area investigated. Similar walling is not repeated in the photographic record presented because of obvious reason. This type of walling only become significant when mapped in relationship with other walls as well as other features in the landscape</i>	25 38 19,1	27 36 27,2
	2	<i>Site at east foot of Ga-Serutube</i>	25 38 19,7	27 36 31,4
	3	<i>Site at east foot of Ga-Serutube</i>	25 38 19,1	27 36 33,6
	4	<i>Enclosure that appears to be an animal enclosure owing to the dung deposit in the enclosed space. (Site at northern foot of Ga-Serutube)</i>	25 38 15,8	27 36 34,6
	5	<i>Site at northern foot of Ga-Serutube</i>	25 38 11,1	27 36 35,3
	6	<i>Site at northern foot of Ga-Serutube</i>	25 38 08,9	27 36 32,2
	7	<i>Site at northern foot of Ga-Serutube</i>	25 38 06,5	27 36 28,4
	8	<i>Site at northern foot of Ga-Serutube</i>	25 38 07,1	27 36 25,8
	9	<i>Small Later Iron Age site at north-western foot of Ga-Serutube</i>	25 38 09,4	27 36 20,7
	10	<i>Byre in complex of three enclosures. These are modern and may even be still in use although they appear to be abandoned at present. They are also located on a later Iron Age Site. Kraal</i>	25 38 10,7	27 36 05,8
	11	<i>Byre in complex of three enclosures. These are modern and may even be still in use although they appear to be abandoned at present. They are also located on a later Iron Age Site Kraal 7</i>	25 38 07,5	27 36 05,5
	12	<i>Small Later Iron Age site next to access road to Segwaelane.</i>	25 39 16,8	27 34 36,4
	13	<i>Small Later Iron Age site next to access road to Segwaelane</i>	25 39 15,7	27 34 33,6
	14	<i>Small Later Iron Age site next to access road to Segwaelane</i>	25 39 16,9	27 34 41,2
22/10	15	<i>Exotic plants, "Queen of the night" and "Sisal", indicate the main dwelling in a complex from where people were relocated from hill known as "Ga-Pitse" circa 1950. This is an ideal site for the interpretation of rural spacial architecture that was low-impacted by modernization</i>	25 38 53,2	27 34 38,9
	16	<i>Remains of stonewall dwelling on "Ga-Pitse" site. Dressing of stone indicates European influence Stone house</i>	25 38 52,8	27 34 26,0
	17	<i>Remains of a dwelling built from home-fired clay bricks with well-built and plastered veranda walls. As with the dressed stone the home-fired clay bricks again show European influence in building technique"</i>	25 38 52,4	27 34 21,6
	18	<i>Farm Fence. Ga-Pitse site continues westwards onto property outside study area.</i>	25 38 53,3	27 34 18,3
	19	<i>Byre on shoulder of Ga-Pitse site.</i>	25 38 45,8	27 34 30,3
	20	<i>Shoulder of Ga-Pitse site.</i>	25 38 40,8	27 34 30,0
	21	<i>Shoulder of Ga-Pitse site.</i>	25 38 44,3	27 34 36,7
	22	<i>Shoulder of Ga-Pitse site.</i>	25 38 47,3	27 34 39,4
	23	<i>Shoulder of Ga-Pitse site. Surveyors peg with following marking dedication. " 25575306"</i>	25 38 50,7	27 34 41,8
	24	<i>Pomegranate on Ga-Pitse site.</i>	25 38 51,1	27 34 51,7
	25	<i>Two of four stone cairns on the Ga-Pitse site. It does not appear as if these were formed by collection for recycling but rather as</i>	25 38 47,1	27 34 52,9

		<i>if stone was brought in for the specific function of building a cairn</i>		
	26	<i>Part of a "slate" that was used for writing practice in schools in the past. It therefore may indicate that the site that it was found on, next to the foundation of a large structure, may have been a school. "</i>	25 38 43,9	27 34 34,9
	27	<i>Ga-Pitse site east of hill.</i>	25 38 38,4	27 34 37,6
	28	<i>Ga-Pitse site north of hill.</i>	25 38 32,5	27 34 55,0
23/10	29	<i>Unknown structure associated with a second set of modern animal enclosures. This set of structures is also situated on a later Iron Age site.</i>	25 38 13,4	27 36 05,3
	30	<i>Later Iron Age site, extremely overgrown with "Dichrostachys cinerea".</i>	25 38 19,2	27 36 08,7
	31	<i>Later Iron Age site on exposed eastern granite shoulder of "Manyawenyawe" hill. The character of this site differs from that of the sites situated at the foot of the hill .</i>	25 38 24,7	27 36 10,3
	32	<i>One of ten grain bin foundations in a collective group of the site situated on exposed eastern granite shoulder of Manyawenyawe hill.</i>	25 38 25,1	27 36 14,6
	33	<i>Later Iron Age site to east of foot of Manyawenyawe extremely overgrown with "Dichrostachys cinerea"</i>	25 38 32,1	27 36 10,5
	34	<i>Large boulder topped with a collection of small stones. This rock is situated at the entrance of a Later Iron Age site on the north eastern shoulder of Manyawenyawe</i>	25 38 36,9	27 36 07,3
	35	<i>Position of Bulldozer damage to Later Iron Age site.</i>	25 38 38,0	27 36 03,8
	36	<i>Position of Bulldozer damage to Later Iron Age site.</i>	25 38 34,1	27 36 01,6
	37	<i>Later Iron Age site on eastern foot Gata Tshwene.</i>	25 38 45,4	27 36 12,5
	38	<i>Later Iron Age site on eastern foot Gata Tshwene.</i>	25 38 50,7	27 36 13,6
	39	<i>Large Later Iron Age Site at southern extremity of the hill known as "Gata-La-Tshwene".</i>	25 38 54	27 36 13,5
	40	<i>Large Later Iron Age Site at southern extremity of the hill known as "Gata-La-Tshwene".</i>	25 39 01,2	27 36 07,9
	41	<i>Large Later Iron Age Site at southern extremity of the hill known as "Gata-La-Tshwene"..</i>	25 39 00,0	27 35 53,1
	42	<i>Large Later Iron Age Site at southern extremity of the hill known as "Gata-La-Tshwene".</i>	25 38 58,2	27 35 57,4
	43	<i>Very small Later Iron Age Site at southwest point of the hill known as "Gata-La-Tshwene". Small site</i>	25 38 54,2	27 35 57,9
	44	<i>Large Later Iron Age Site at southern-western extremity of the hill known as " Manyawenyawe ".</i>	25 38 39,6	27 35 50,2
	45	<i>Large Later Iron Age Site at southern-western extremity of the hill known as " Manyawenyawe ".</i>	25 38 37,5	27 35 46,4
	46	<i>Large Later Iron Age Site at southern-western extremity of the hill known as " Manyawenyawe ".</i>	25 38 30,4	27 35 25,0
	47	<i>Large Later Iron Age Site at southern-western extremity of the hill known as " Manyawenyawe ".</i>	25 38 28,2	27 35 21,2
	48	<i>Wreck of modern motorcar. Also position of only Stone Tool observed.</i>	25 38 20,9	27 25 10,3
	49	<i>Stone walling of Later Iron Age site in the northern section of</i>	25 36 55,8	27 34 15,7

		<i>the area of investigation. It is difficult to evaluate these walls as the vegetation cover inhibits proper investigation.</i>		
50		<i>Large midden deposit of a Later Iron Age site in the northern section of the area under investigation.</i>	25 36 54,6	27 34 12,2
51		<i>Large midden deposit of a Later Iron Age site in the northern section of the area under investigation. It has been bisected by the access road</i>	25 36 53,0	27 34 08,3
52		<i>Later Iron Age site destroyed by the excavation of two large water reservoirs.</i>	25 36 52,8	27 34 06,1
53		<i>S Quarry activities on a Later Iron Age Site have to al large degree destroyed a large portion of the site.</i>	25 36 51,5	27 34 03,2
54		<i>Later Iron Age site in valley behind hill.</i>	25 36 55,7	27 34 00,8
55		<i>Later Iron Age site in valley behind hill</i>	25 36 58,2	27 34 01,2
56		<i>Later Iron Age site in valley behind hill, Bulldozer damage to site.</i>	25 37 01,8	27 34 02,8
57		<i>Later Iron Age site in valley behind hill with a large population of "Papea Capensis" trees present on site.</i>	25 37 02,2	27 34 07,2
58		<i>Later Iron Age site in valley behind hill with a large boulder as focal point of the site.</i>	25 37 02,6	27 34 11,3
59		<i>Later Iron Age site in valley behind hill</i>	25 37 00,7	27 24 17,1
60		<i>Later Iron Age site on top of hill with well constructed dry stonewalling. This appears to be another generation of Later Iron Age type-sites in the area.</i>	25 37 02,1	27 34 19,8
61		<i>Later Iron Age site on top of hill with well constructed dry stonewalling. This appears to be another generation of Later Iron Age type-sites in the area.</i>	25 37 04,9	27 34 25,9
62		<i>2nd Later Iron Age site on top of hill with well constructed dry stone walling.</i>	25 37 06,7	27 34 21,1
63		<i>Animal enclosure on a site between two hills. These are relatively rare in the area and either indicates a low density of pastoralist practise or that byres were constructed with wooden material. 2nd site on top</i>	25 37 06,7	27 34 18,2
64		<i>Later Iron Age site at northwest end of 2nd ridge.</i>	25 37 11,5	27 34 11,0
65		<i>Later Iron Age site at northwest end of 2nd ridge.</i>	25 37 11,1	27 34 07,0
66		<i>Later Iron Age site at north side of access road.</i>	25 36 58,2	27 34 27,2
67		<i>Main quarry area to the eastern side of hill. (Archaeological site damaged)</i>	25 36 57,0	27 34 34,8
68		<i>Main quarry area to the eastern side of hill. (Archaeological site damaged)</i>	25 36 52,7	27 34 49,0
69		<i>Main quarry area to the eastern side of hill. (Archaeological site damaged)</i>	25 37 15,3	27 34 58,3
70		<i>Main quarry area to the eastern side of hill. (Borehole)</i>	25 37 18,8	27 34 56,5
71		<i>Main quarry area to the eastern side of hill. (Archaeological site damaged)</i>	25 37 21,1	27 34 55,1

27 35

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Area previously quarried

Ga-Ram

Maselege

Ga-Ramj

Ma

LEEUWKOP

402 JQ

LEEUWKOP

21

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27 36

27 38

