

# Phase 1 Heritage Impact Assessment for proposed new mall in Phuthaditjhaba, FS Province.

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## Summary

A Phase 1 Heritage Impact Assessment was carried out over a 7.5 ha - area designated for construction of new mall in Phuthaditjhaba, Free State Province. The study area is situated on open, flat terrain within a residential area of Phuthaditjhaba on the farm Bluegum Bosch 199. The site is completely capped by a well-developed residual soil overburden grading into alluvial deposits that are derived from a tributary of the Namahadi River, (cf. Quaternary aged Masotcheni Formation) running along the western boundary of the study area. Potential for finding significant fossils in any excavation into underlying sediments of the Tarkastad Subgroup is rated High, with potential to find fossils in the geologically recent overburden rated as Low in this case. The project may proceed, provided that (1) linear excavations exceeding 3 m in length and 1 m in depth (e.g. pipelines & foundations) into intact (previously undisturbed) sandstones, (2) or the mechanical exposure of unweathered sandstone surfaces exceeding 4 m<sup>2</sup> in size, shall require monitoring by a professional palaeontologist during the construction phase of the project. It is advised that a palaeontologist is appointed to inspect the site during the very start of landscaping and excavation activities and then at least once a month until all excavation activities are completed. This must be accompanied by a Chance Find Protocol document provided by the paleontologist that will be updated accordingly. The site has been severely degraded by ongoing human activities. There is no aboveground evidence of historically significant building structures older than 60 years, Stone Age archaeological remains, Iron Age structures, graves or material of cultural significance within the confines of the development footprint. As for potential archaeological impact, the archaeological and cultural component of the proposed project footprint is assigned a site rating of General Protection C (**Table 1**). The development may proceed, if all excavation activities are restricted to within the boundaries of the footprint.

## Introduction

A Phase 1 Heritage Impact Assessment was carried out over a 7.5 ha - area designated for construction of new mall in Phuthaditjhaba, Free State Province (**Fig. 1**). The extent of the affected areas (over 5000 m<sup>2</sup>) falls within the requirements for a Heritage Impact Assessment (HIA) as required by Section 38 (Heritage Resources Management) of the South African National Heritage Resources Act (Act No. 25 of 1999). The site visit and subsequent assessment took place during May 2016. The task involved identification of possible archaeological sites or occurrences in the proposed zone, an assessment of their significance, possible impact by the proposed development and recommendations for mitigation where relevant.

### Terms of Reference

- Identify and map possible heritage sites and occurrences using published and database resources;
- Determine and assess the potential impacts of the proposed development on potential heritage resources;
- Recommend mitigation measures to minimize potential impacts associated with the proposed development.

### Approach and Methodology

The heritage significance of the affected area was based on existing field data, database information and published literature. A field assessment, using a Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera for recording purposes followed this. Geological maps, aerial photographs and site records were integrated with data acquired during the on-site inspection. The study area is rated according to field rating categories as prescribed by SAHRA (**Table 1**).

### Locality data

Maps: 1:50 000 scale topographical map 2828BD Korfskop

1:250 scale geological map 2828 Harrismith

Site coordinates: 28°28'49.85"S 28°51'11.42"E

The study area covers 7.5 ha of open, flat terrain on the farm Bluegum Bosch 199, currently located within a residential area of Phuthaditjhaba (**Fig. 2**).

## Background

### Palaeontology

The study area is located within the outcrop area of the Katberg and overlying Burgersdorp Formation sandstones of the Permian – Triassic Tarkastad Subgroup (*Trt*, Karoo Supergroup) (Johnson *et al.* 2006)

(**Fig. 3**). Intrusive dykes and sills of resistant Jurassic dolerites (*Jd*) are common in the region, but are not fossiliferous (Duncan et al. 2006).

Tarkastad Subgroup sedimentary strata in the region are associated with the Cynognathus Assemblage Zone (AZ), characterized by a predominance of *Cynognathus*, *Diademodon* and *Kannemeyeria* (Groenewald 1991; Kitching 1995; MacRae 1999; McCarthy & Rubidge 2005). Vertebrate trackways and burrows have also been recorded in Katberg and Burgersdorp Fm. sandstones, respectively (Groenewald *et al.* 2001).

### **Archaeology**

The archaeological footprint in the area are primarily represented by Stone Age archaeological localities, rock art sites and an extensive footprint related to the distribution of Iron Age settlements and early history of Sotho-speaking communities in the Caledon Valley and eastern escarpment (Maggs 1976; Volman, 1984; Humphreys 1991, Wadley 1995; Thorp & De Ruiter 1997; Cochrane 2008). A transitional Middle/Later Stone Age buried sequence on the farm Sunnyside 1425, located about eight kilometres southeast of Clarens, yielded a date of around 30 ka, obtained by optically stimulated luminescence (Henderson et al. 2006). Alluvial and swamp deposits from several sites in the region have previously provided evidence about the Late Quaternary history of the region (Scott 1989; Grab et al. 2005). Rock art sites recorded in around Phuthaditjhaba include multiple localities in the Golden Gate National Park, as well as the farms Witzieshoek and Rydal Mount (farm numbers withheld).

The Phuthaditjhaba region saw consecutive occupations by Bushmen hunter-gatherer groups (**Fig. 4**), the Kgolokwe of chief Oetsi (1838-1861), the Bakwena under Paulus Mopeli (1867-) and the Batlokwa tribe under Koos Mota (1875- ) (Ellenberger 1912). Today there are 10 tribes: three under the Batlokwa Paramount Chief and seven under the Bakwena Paramount Chief (Van Aswegen 1999) (**Fig. 5**).

Early references to the history of the region are closely related to the arrival of the Kgolokwe in the area (Dreyer 1991). The Kgolokwe lived at Thaba Kgolokwe near the present-day town of Standerton for several generations, up to the end of the 17th century. They gradually moved to the area east of Ntsuanatsatsi (Tafelkop) near Bethlehem where Type N and elongated Type V settlements are located (Maggs 1976). In 1853 Sekonyela of the Tlokwa and Gert Taaibosch, a Koranna chief, joined forces and attacked the Kgolokwe of Oetsi at this locality. After this the Kgolokwe settled at Witsieshoek (QwaQwa) around 1800 where they lived for some time before their dispersion by the Free State Boers in 1856 (**Fig. 6 & 7**).

The Bakwena (Bakoena) are a large clan in Southern Africa, forming part of the SeSotho-SeTswana people who started spreading from the Vaal River to present day Botswana as early as the 14<sup>th</sup> century AD. The Bakwena trace their origin to Kwena (Koena) who lived round about 1450 AD at Tebang, near

the present day Heildelberg. (Ellenberger 1912; Maggs 1976). Kwena fathered three including Kgabo, who had one son ,Masilo II. One of Masilo II sons was Napo, the father of Motebang, Disema and Molapo. Motebang. His great grandsons Tshotelo and Monaheng settled near present day Bethlehem where they lived side by side with Bafokeng of Mangole. Later, Monaheng settled at Fothane near Fouriesburg. He subjugated Bafokeng of Komane and local Bushman groups who already occupied that area. Monaheng fathered six sons, including, Motlwang, whose grandsons, Moshweshwe and Paulos Mopeli, played a pivotal role in the history of Bakwena. A major event to take place among the indigenous tribes of the interior highveld of South Africa before the coming of European settlers was the Difaqane raids and wars. The rise of Shaka's Zulu empire among the coastal Nguni-speaking peoples resulted in the creation of large-scale refugee communities of resident Southern Sotho-speaking peoples who could not resist the advanced military and political system of the Nguni invaders. This led to the segmentation of the Southern Sotho into numerous antagonistic communities scattered along the Caledon River Valley (Lye 1967). Moshweshwe established the Basotho kingship through conquering and subjugating various traditional communities and welding together fragmented Basotho communities during the Mfecane Wars. As leader and king of the Basotho nation, Moshweshwe placed Paulos Mopeli as chief at Maboleta, situated east of present day Ladybrand. However, the the wars between Basotho and the Free State Boers (1865 – 1868) dispossessed Lesotho of much of its territories, including Maboleta. After approaching the Volksraad of the Orange Free State, led by President Brand, Paulus Mopeli was recognized as chief over his people – Bakwena ba Mopeli - and allocated a portion of land at the then Witsieshoek (Qwaqwa) in 1867 on condition that he and his followers remained subjects of the government of the Republic of the Orange Free State (**Fig. 8**). Koos Mota came into the region in 1875 and settled at Matswakeng and Makgemeng (located about 16 km due south of the study area).

## **Field Assessment and Recommendations**

### **Palaeontology**

According to the 1:250 scale geological map the footprint partially lies on Tarkastad Subgroup sediments, but given the low relief terrain, no intact outcrop or sedimentary exposures were observed during the survey. The site is completely capped by a well-developed residual soil overburden grading into alluvial deposits that are derived from a tributary of the Namahadi River, (cf. Quaternary aged Masotcheni Formation) running along the western boundary of the study area (green area on SAHRIS map, Fig 3). The potential for finding significant fossils in any excavation into sediments of the Tarkastad Subgroup is rated High, with potential to find fossils in the geologically recent overburden rated as Low in this case. The project may proceed, provided that:

- linear excavations exceeding 3 m in length and 1 m in depth (e.g. pipelines & foundations) into intact (previously undisturbed) sandstones,
- or the mechanical exposure of unweathered sandstone surfaces exceeding 4 m<sup>2</sup> in size,

shall require monitoring by a professional palaeontologist during the construction phase of the project. It is advised that a palaeontologist is appointed to inspect the site during the very start of landscaping and excavation activities and then at least once a month until all excavation activities are completed. This must be accompanied by a Chance Find Protocol document provided by the paleontologist that will be updated accordingly.

### **Archaeology**

The site has been severely degraded by ongoing human activities (**Fig. 10**). There is no aboveground evidence of historically significant building structures older than 60 years, Stone Age archaeological remains, Iron Age structures, graves or material of cultural significance within the confines of the development footprint. As for potential archaeological impact, the archaeological and cultural component of the proposed project footprint is assigned a site rating of General Protection C (**Table 1**). The development may proceed, if all excavation activities are restricted to within the boundaries of the footprint.

### **References**

- Cochrane, G.W.G. 2008. A Comparison of Middle Stone Age and Later Stone Age Blades from South Africa. *Journal of Field Archaeology* 33 (4) 429-448.
- Dreyer J 1992. A report on the archaeology of the QwaQwa Museum site. *South African Field Archaeology* 1: 80 – 87.
- Duncan, A.R. and Marsh, J.S. 2006. *The Karoo Igneous Province*. In: M.R. Johnson, *et al.* (eds). The Geology of South Africa. Geological Society of South Africa.
- Ellenberger, DF 1912. *History of the Basuto: Ancient and Modern*. Caxton Publishing Company, London.
- Erasmus, P.A. 1999. Land Reform: Challenges in a former South African Homeland. *Journal of Social Science* 3(4): 287 – 292.
- Grab, S., Scott, L., Rossouw, L. and Meyer, S. 2005 Holocene Palaeoenvironments inferred from a sedimentary sequence in the Tsoaing River Basin, Western Lesotho. *Catena* 61:49-62.
- Groenewald GH, Welman J and MacEachern JA. 2001. Vertebrate Burrow Complexes from the Early Triassic Cynognathus Zone (Driekoppen Formation, Beaufort Group) of the Karoo Basin, South Africa. *Palaios*. 16(2) 148-160.

- Henderson, Z.L., Scott, L. Rossouw, L. & Jacobs, Z. 2006. The dating, palaeoenvironments and archaeology of the Sunnyside 1 site, Clarens, South Africa. In: T. Rocek (ed.). *Intergrading the diversity of 21st century anthropology: the life and intellectual legacies of Susan Kent. Archaeological Papers of the American Anthropological Association* Vol. 16 (1):. 139-149.
- Humphreys, A.J.B. 1991. On the Distribution and Dating of Bifacial Tanged and Barbed Arrowheads in the Interior of South Africa. *South African Archaeological Bulletin* 46 (153)
- Johnson *et al.* 2006. Sedimentary rocks of the Karoo Supergroup. In: M.R. Johnson, et. al. (eds). *The Geology of South Africa*. Geological Society of South Africa.
- Kitching, J.W. 1995. Biostratigraphy of the Cynognathus AZ. In: B.S. Rubidge, *Biostratigraphy of the Beaufort Group*. Biostrat. Ser. S.Afr. Comm. Strat. 40 – 45.
- Lye, W.F. 1967. The Difaqane: The Mfecane in the Southern Sotho Area, 1822 – 1824. *Journal of African History* 8 (1) 107-131
- Lye, W.F. 1972. Distribution of the Sotho peoples after the Difaqane. In: L Thompson (ed) *African societies in southern Africa*. Heinemann. London.
- MacRae, C. 1999. *Life Etched in Stone*. Fossils of South Africa. The Geological Society of South Africa, Johannesburg.
- McCarthy, T. and Rubidge, B.S. 2005. *The Story of Earth and Life*. Struik Publishers, Cape Town.
- Maggs, T O’C 1976. Iron Age Patterns and Sotho History on the Southern Highveld, South Africa. *World Archaeology* 7(3) 318-332.
- Scott, L. (1989) Late Quaternary vegetation history and climatic change in the eastern OFS. *South African Journal of Botany* 5: 107-116.
- Thorp, C. and De Ruiter, D. 1997. Evidence for Interaction from Recent Hunter-Gatherer Sites in the Caledon Valley. *African Archaeological Review* 14 ( 4): 231-256.
- Van Riet Lowe, C. 1941. Prehistoric art in SA. *Archaeological Series No. 5*. Bureau of Archaeology. Dept. Of the Interior, Pretoria.
- Volman, T.P. 1984. Early prehistory of southern Africa In: R.G. Klein (ed) *Southern African prehistory and palaeoenvironments*. Rotterdam. Balkema.
- Wadley, L. 1995. Review of dated Stone Age sites recently excavated in the eastern Free State, South Africa. *South African Journal of Science* 91 (11/12): 574–579.

*DECLARATION OF INDEPENDENCE*

*September 2021*

*I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference and have no interest in secondary or downstream developments resulting from the authorization of this project.*



## Tables and Figures

**Table 1.** Field rating categories as prescribed by SAHRA.

<b>Field Rating</b>	<b>Grade</b>	<b>Significance</b>	<b>Mitigation</b>
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction



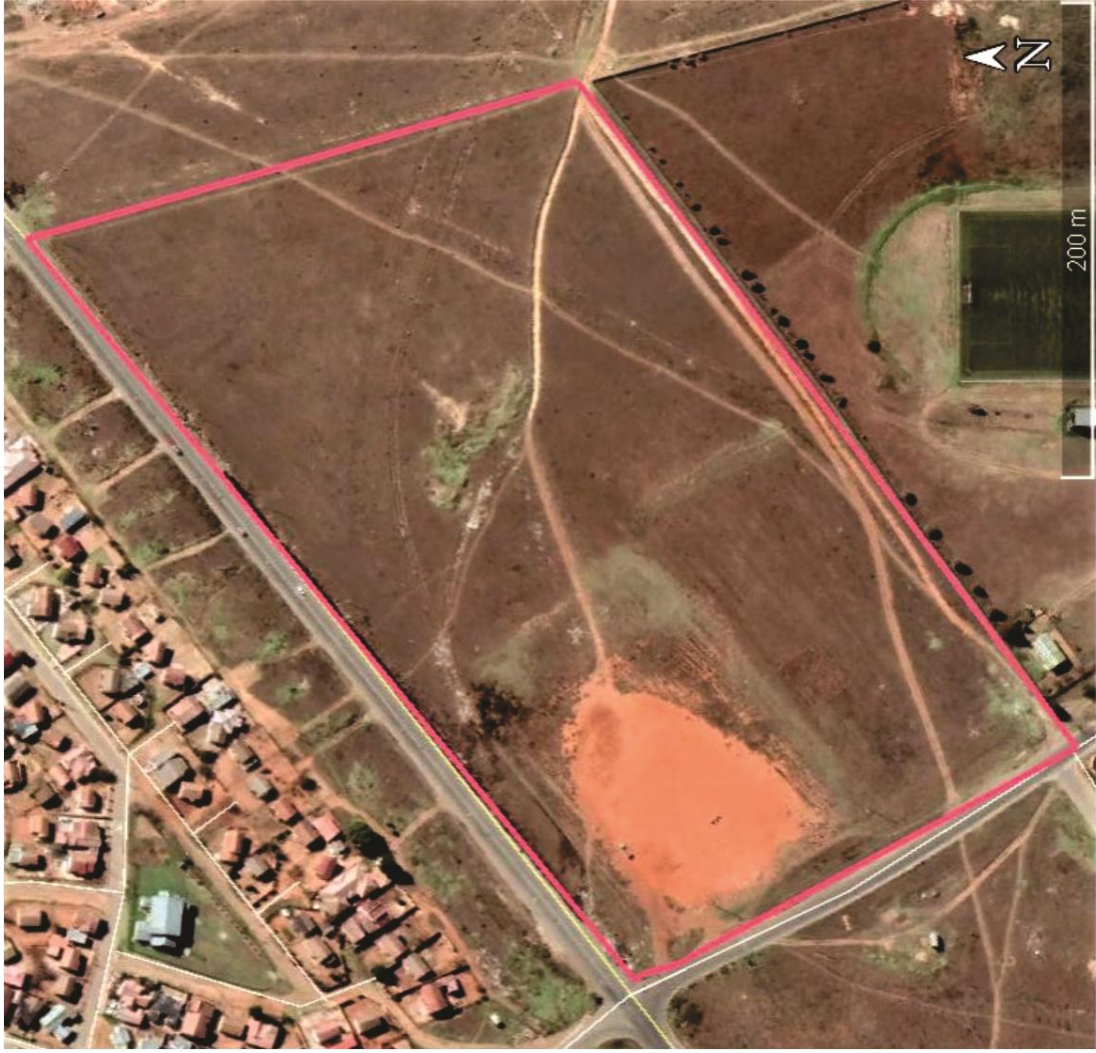


Figure 2. Aerial view and layout of the study area

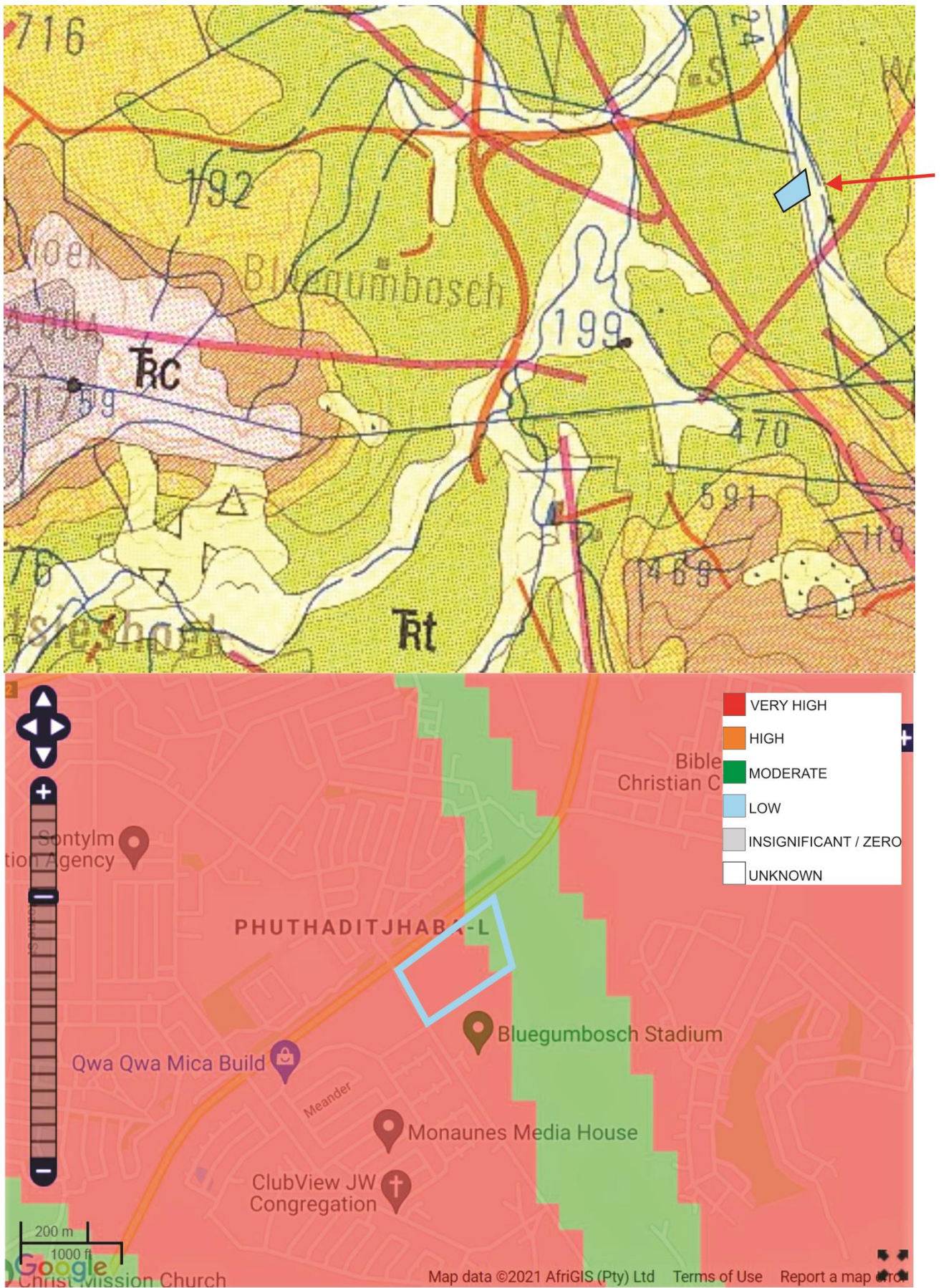


Figure 3. Portion of 1:250 000 scale geological map 2828 Harrismith (above) and SAHRIS palaeosensitivity map (below) with study area marked by blue polygon.



Figure 4. Surface scatters of largely chalcedony-based, Wilton Industry microliths previously mapped in the Qwaqwa area by the author.  
Scale 1 = 10mm

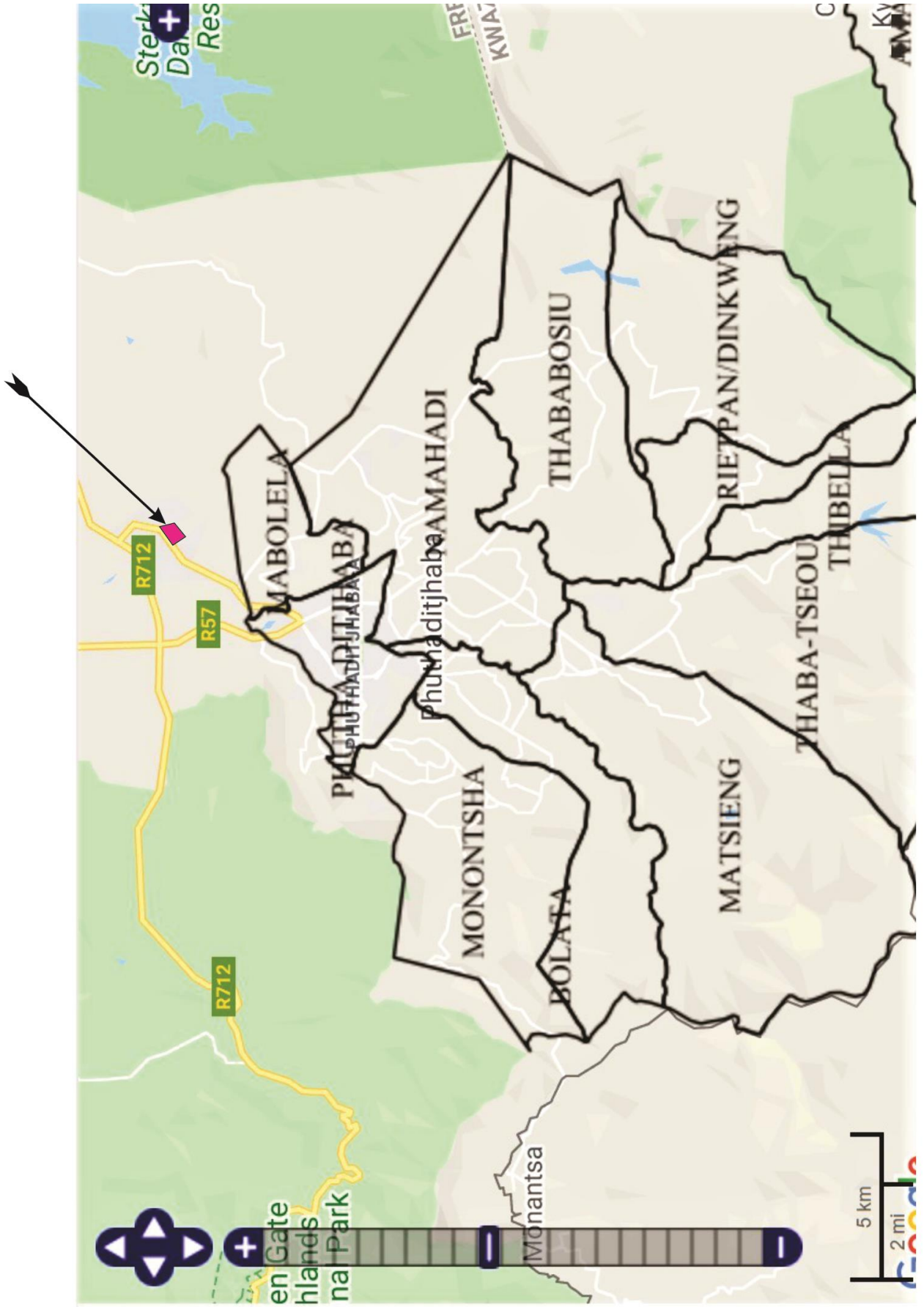


Figure 5. Map of tribal authorities in Qwaqwa according to SAHRIS (2021). Study area marked by pink polygon.

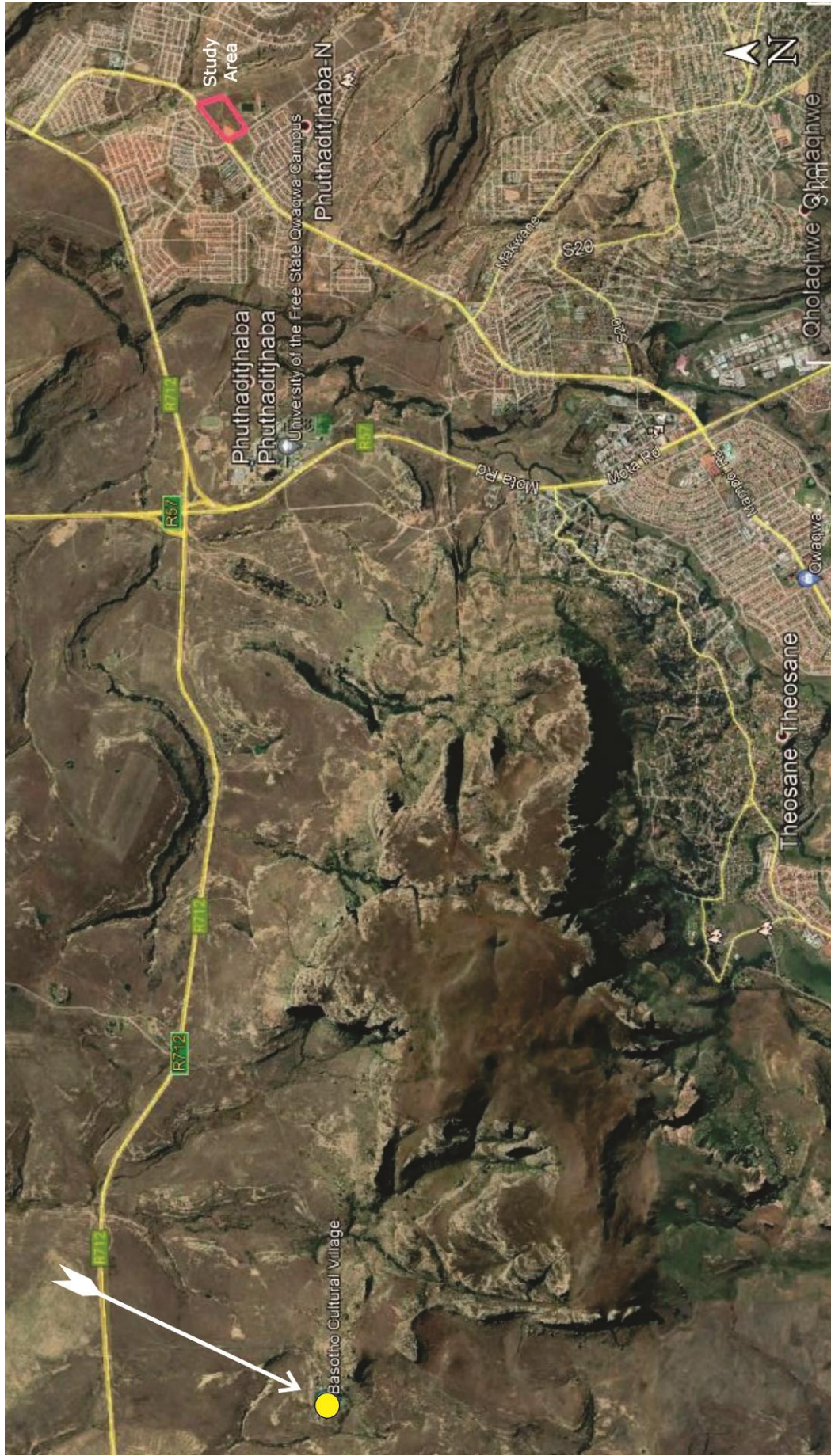


Figure 6. The Basuto Cultural Village Museum near Phuthaditjhaba contains remnants of a prehistoric occupation which predates contemporary settlement in Qwaqwa. According to the museum officials the site complex is claimed neither by the Tlokwa nor the Kwena as an ancestral living place. It is speculated locally that the site could have been a settlement of the Kgolokwe, the people of Chief Oetsi (Witsie), who occupied Witsieshoek before their dispersion by the Free State Boers (Dreyer 1992).

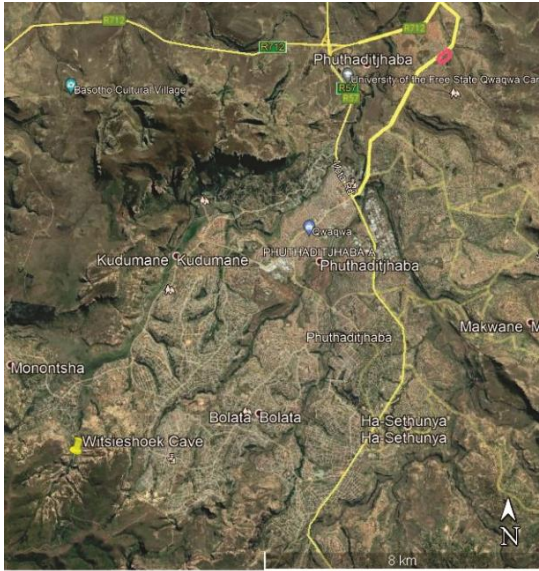


Figure 7. Witsieshoek Cave, used by Chief Oetsi in 1856 as a fortress after he was dispossessed of the land by the Free State government. The cave was declared a Provincial Heritage Site in 2016





Figure 8. Portion of land allocated to Paulus Mopeli after he was recognized as chief over his people – Bakwena ba Mopeli - by the Orange Free State in 1867.



Figure 9. General view of the site, looking south (above) and east towards a drainage line (below).



Figure 10. The site is currently used as a parking lot, a soccer field as well as for brick making activities.