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9 November 2022

Attention: Ms. Nokukhanya Khumalo

SAHRA Case Officer Limpopo Province

South African Heritage Resources Agency (SAHRA)

Dear Ms Khumalo

Application for exemption from a Heritage Impact Assessment for the proposed Emulsion Plant at Venetia Mine Near Alldays, Limpopo Province

1. Introduction

It is the intention of Venetia Mine to develop and operate an explosives manufacturing plant (Emulsion Plant) to supply explosives for the Venetia Underground Project (VUP). Venetia Mine is located approximately 80km west of Musina and 40km north-east of Alldays in the Limpopo Province and falls within the Musina Local Municipality and the Vhembe District Municipality. Alta van Dyk Environmental (AvdE), has been appointed as the independent Environmental Assessment Practitioner (EAP), to undertake the environmental authorization process for the Project.

The proposed Emulsion Plant will be located within Venetia Mine's current mining right on portion 1 of the farm Venetia 130 MS. The proposed Emulsion Plant is located in a disturbed area between the Open Pit, Rugen Waste Rock Dump and Explosives Magazine (Figure 1.1 to 1.3), at the following coordinates: 22°26'28.94"S & 29°20'3.90"E.

Beyond Heritage (Pty) Ltd has been appointed to assess the potential impact of the Project on heritage resources and the following key findings were made:

- The project area and surrounds have been subjected to several HIAs (Gaigher 2013, Pistorius 2011, Bandama & Chikure 2012, Mathoho 2022, van der Walt 2022). The Bandama and Chikure (2012) report also assessed the current project area and recorded no heritage sites within the development footprint.
- Archaeological databases (Wits and SAHRA) have several Iron Age farming sites on record for the area, with the closest site more than 170 meters to the northwest of the Project area now covered by the Rugen Waste Rock Dump.
- These Iron Age sites are mostly cattle posts, located on elevated areas overlooking the Koloape River. These sites are marked by open areas in the Mopane veld with white patches from the cattle kraals and easily visible from areal imagery. None of these characteristics were noted in areal imagery of the area.

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- The proposed development is located within an active mining area and won't have a visual impact or impact on the Outstanding Universal Value of the Mapungubwe cultural landscape to the north, although the development is located in the buffer zone.

Based on the lack of heritage sites within the development footprint, the disturbed nature of the area and the fact that the area was previously assessed (Bandama and Chikure 2012) no impact on heritage resources in terms of Section 38 of the National Heritage Resources Act (NHRA) are expected to be adversely affected by the Project. Therefore, Beyond Heritage supports an application for exemption from a full Phase 1 HIA.

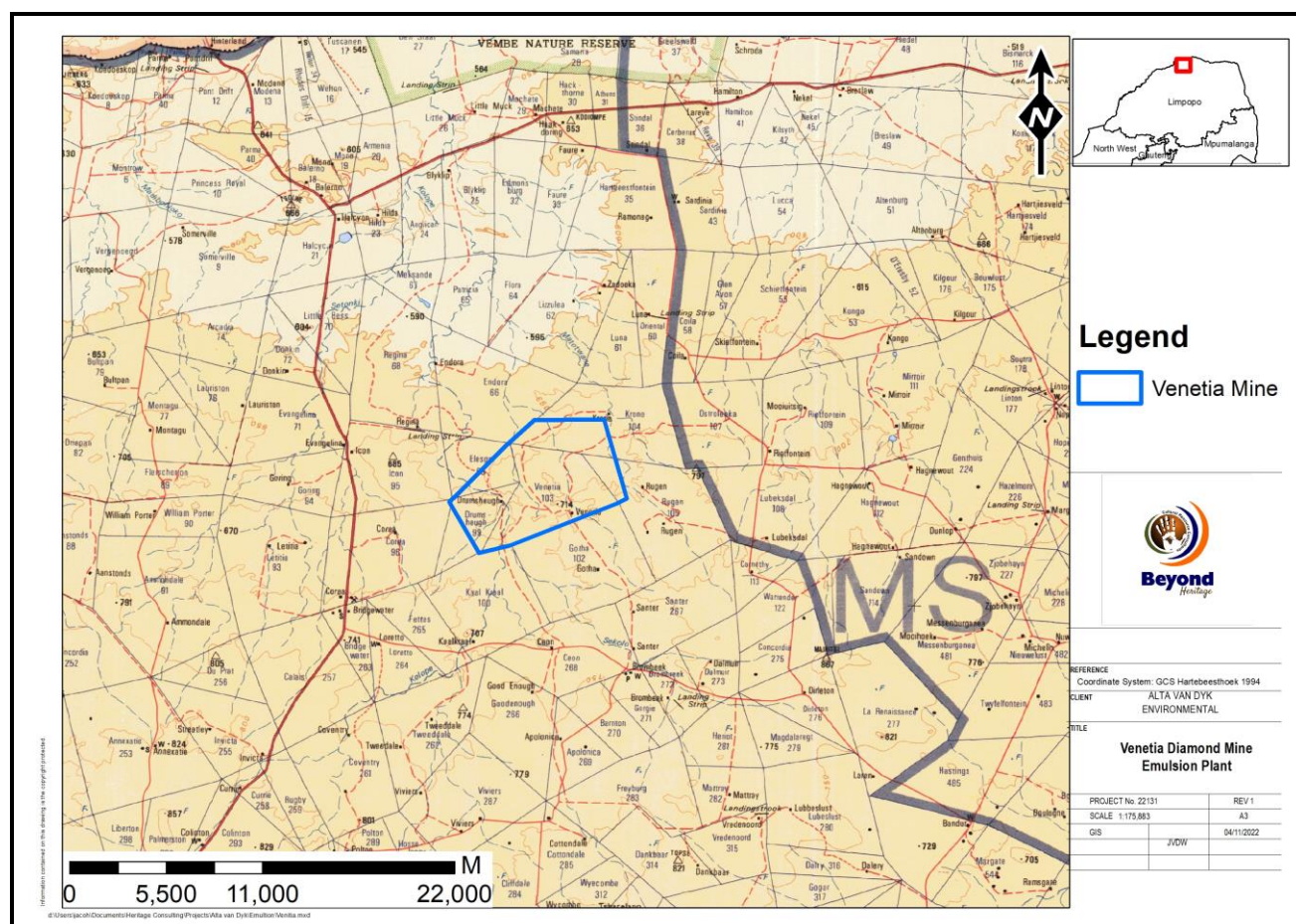


Figure 1.1. Regional setting of the Project (1: 250 000 topographical map).

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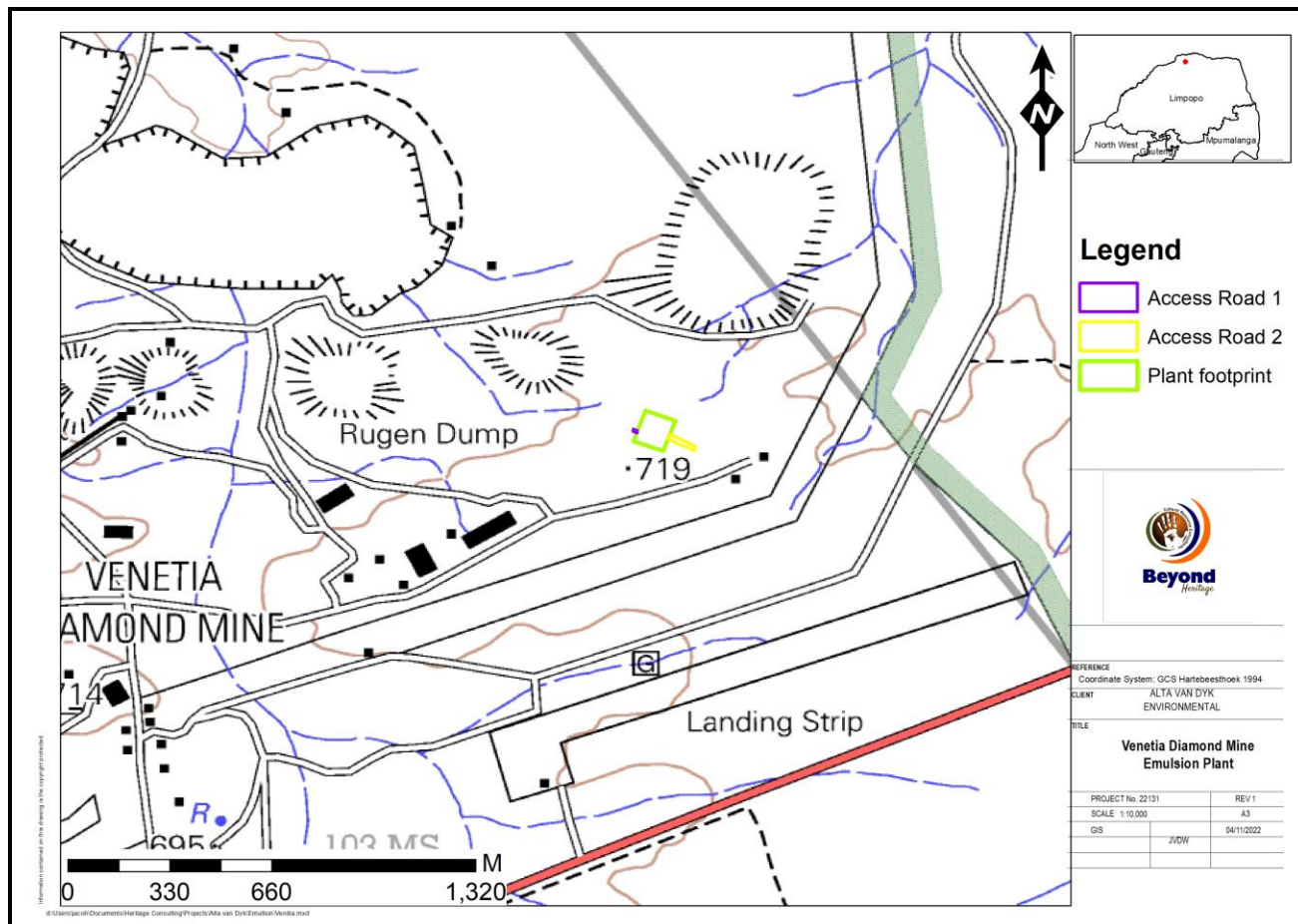


Figure 1.2. Local setting of the Project (1: 50 000 topographical map) showing the existing mining activities in the area.

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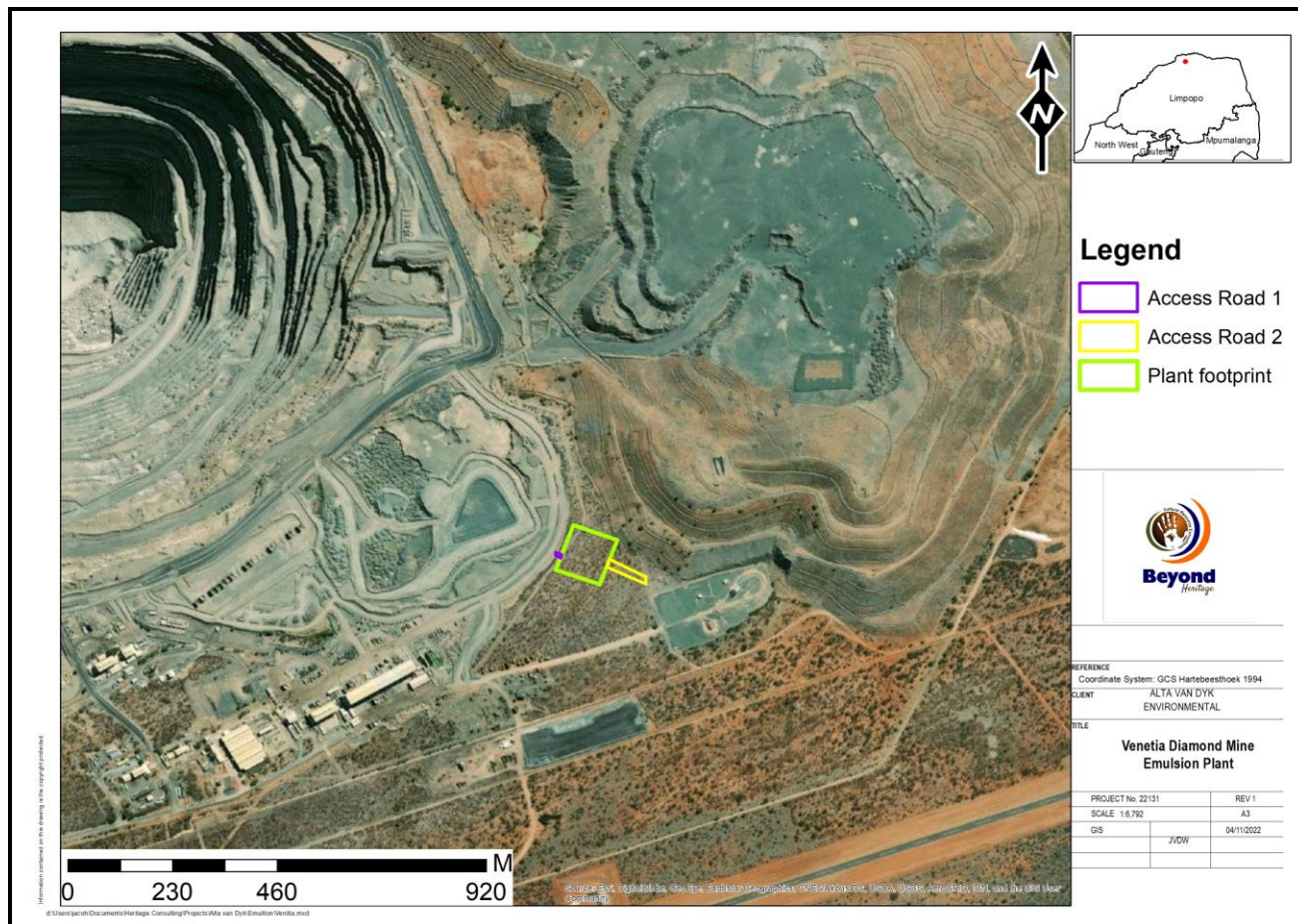


Figure 1.3. Aerial image of the study area and surrounds. Note the transformed nature of the general area.

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1.1. Project Background

De Beers Consolidated Mines (Pty) Ltd (De Beers) has an existing mining right for Venetia Mine on the farms Venetia 103MS, Krone 104MS, Rugen 105MS, Elesger 98MS and Drumsheugh 99MS, approximately 80km west of Musina and 40km north-east of Alldays in the Limpopo Province. Venetia Mine is a diamond mine and commenced with operations in 1992. Current operations consist of a fully operational open pit. As the depth of open pit mining increases, the amount of waste rock increases and opencast mining becomes economically and environmentally unviable. As a result, the opencast pit will be developed to a depth of approximately 450m, thereafter the reserves will be mine from underground as part of the VUP. The VUP is currently in the construction phase, and current activities includes the sinking of two vertical shafts and developing a decline from the surface. It is the intention of Venetia Mine to develop and operate an explosives manufacturing plant (Emulsion Plant) to supply explosives for the VUP, once operational.

The proposed Emulsion Plant will have the ability to produce ammonium nitrate emulsion (ANE). ANE is an explosive precursor which is sensitised to become an explosive only at the point of use, i.e. underground. The production of ANE will be for the exclusive use of Venetia Mine's VUP.

The proposed Emulsion Plant production facility will include:

- • Chemical, fuel and product storage tanks;
- • Truck loading and unloading facilities;
- • Utilities including hot water, cooling water and compressed air systems, electricity distribution and a transformer;
- • Stormwater/spill management structures; and
- • An office, control room, switch room and quality control laboratory and mixing laboratory

2. The Heritage Character of the Study area

2.1. Literature review

A brief survey of available literature was conducted to extract data and information on the area in question to provide general heritage context into which the development would be set. This literature search included published material, unpublished commercial reports, and online material, including reports sourced from the South African Heritage Resources Information System (SAHRIS).

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2.2. Background to the general area

2.2.1. The Stone Age

South Africa has a long and complex Stone Age sequence of more than 2 million years. The broad sequence includes the Later Stone Age (LSA), the Middle Stone Age (MSA) and the Earlier Stone Age (ESA). Each of these phases contain sub-phases or industrial complexes, and within these we can expect regional variation regarding characteristics and time ranges. The three main phases can be divided as follows;

- * Later Stone Age; associated with Khoi and San societies and their immediate predecessors. Recently to ~30 thousand years ago
- * Middle Stone Age; associated with Homo sapiens and archaic modern humans. 30-300 thousand years ago.
- * Earlier Stone Age; associated with early Homo groups such as Homo habilis and Homo erectus. 400 000-> 2 million years ago.

The larger geographical area was inhabited since the ESA and was subjected to intensive research (Kuman *et al* 2000). Isolated hand axes have been found on Venetia, but they have little value. The most important site is Kudu Koppie on the farm Samaria. It is one of the few sites in the country with late ESA stratified under the MSA (Pollarolo & Kuman 2009). Other ESA artefacts have eroded from the edge of the escarpment facing the Limpopo River. These ESA (and MSA) artefacts rest on top of a calcrete layer, or on the sandstone bedrock. The artefacts include numerous cores made from quartzite cobbles found at the foot of the escarpment. These cobbles in turn are eroding out of decalcified alluvial gravels deposited by the Limpopo River (Huffman & van der Walt 2011).

MSA artefacts are common throughout the Limpopo Valley, but unless they occur in undisturbed deposits, they have little significance. Generally, a few MSA artefacts, such as cores, can occur anywhere across the plateau, while many more lay scattered along the escarpments because of deflation and erosion (Le Baron *et al.* 2010). The homogenous distribution suggests resources were also evenly distributed across the plateau. It is not possible to tell, however, if the scatter is the result of short intensive use or repeated use over a longer period. The sand mantel above the calcrete and sandstone varies from 0.1 to 5.6m in depth. It is largely derived from the Clarens Formation that forms the local sandstone bedrock. The mantel itself dates to the Holocene, in this case from about 14 000 to 25 000 years ago (Kuman *et al.* 2005). As a rule, only LSA artefacts occur in the sand. In terms of the MSA evidence of bipolar flaking that is associated with the MSA Pietersburg Industry (Mason 1962) occurs at the earlier Limpopo site, Kudu Koppie (Sumner 2013).

During the LSA, people started to occupy sites on a recurring basis often in rock shelters and caves and often left panels of rock art in these shelters a rock art survey on both sides of the Limpopo Sashi confluence area identified close to 150 rock art sites (Eastwood and Cnoops 1999). Work on both open sites and rock shelters indicate that LSA people lived in the area from about 11 000 years ago (Van Doornum 2008). Occupation intensified, however, when farmers moved into the valley. One important shelter on the farm Little Muck suggests that Iron Age farmers took over some rock shelters from foragers for their own ritual use (Hall & Smith 2000).

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2.2.2. The Iron Age

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the pre-Historic and Historic periods. The Iron Age is characterised by the ability of these early people to manipulate and work Iron ore into implements that assisted them in creating a favourable environment to make a better living. The Iron Age is divided into three distinct periods:

- The Early Iron Age: Most of the first millennium AD.
- The Middle Iron Age: 10th to 13th centuries AD
- The Late Iron Age: 14th century to colonial period.

Phases within each period are marked by different ceramic *facies* (Figure 2.1). A short summary of occupation in the Limpopo valley will now be discussed.

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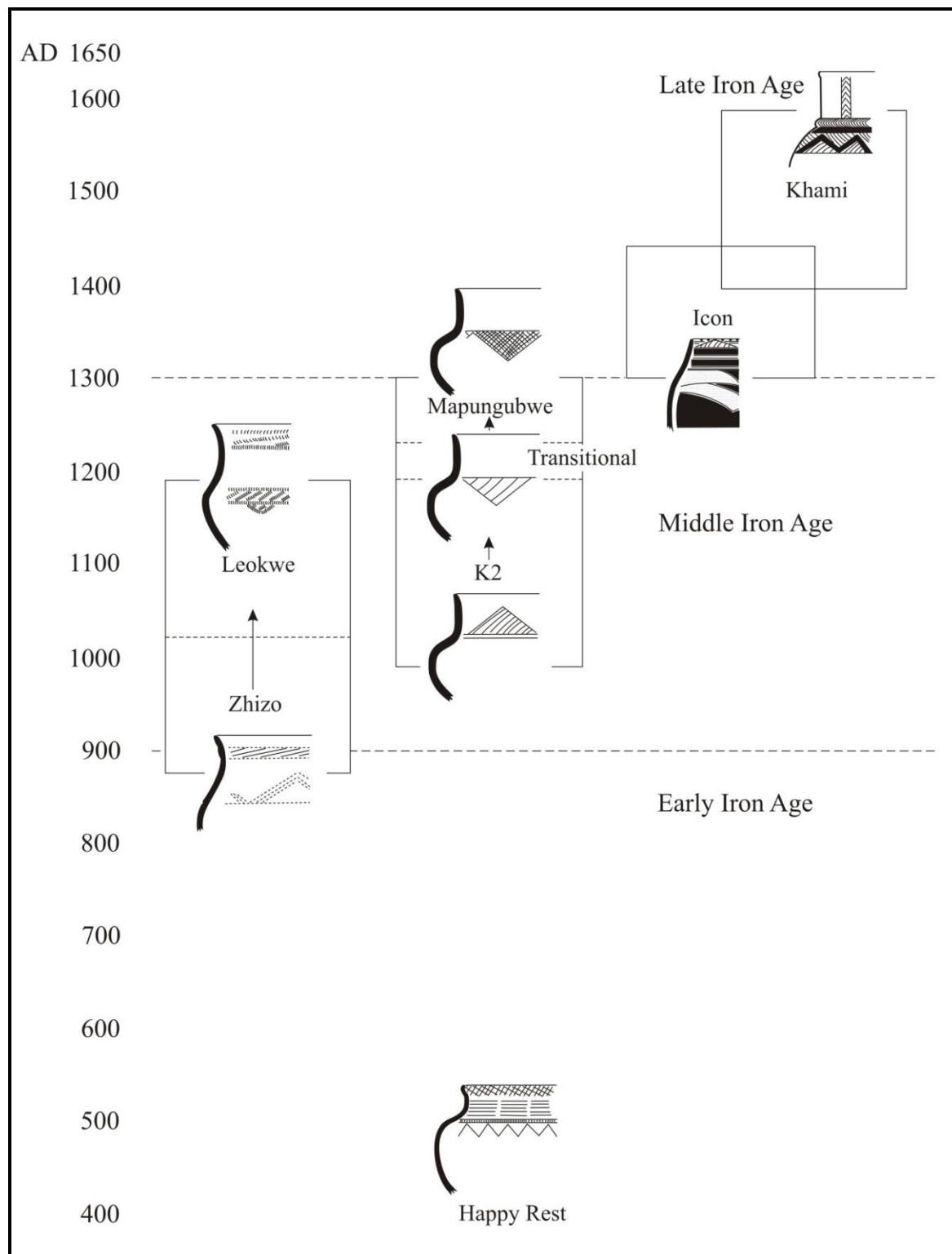


Figure 2.1. Iron Age ceramic facies for the Mapungubwe region (Adapted from Huffman 2009b).

2.2.2.1. Early Iron Age

Between AD 500 and 700, agro pastoralists joined the hunter gatherers in the region. This was marked by ceramics belonging to the *Happy Rest* and *Mzonjani* facies (Figure 2.2). These societies were patrilineal (cf. Hammond-Tooke 1993) and spoke an Eastern Bantu language (Huffman & Herbert 1994/1995).

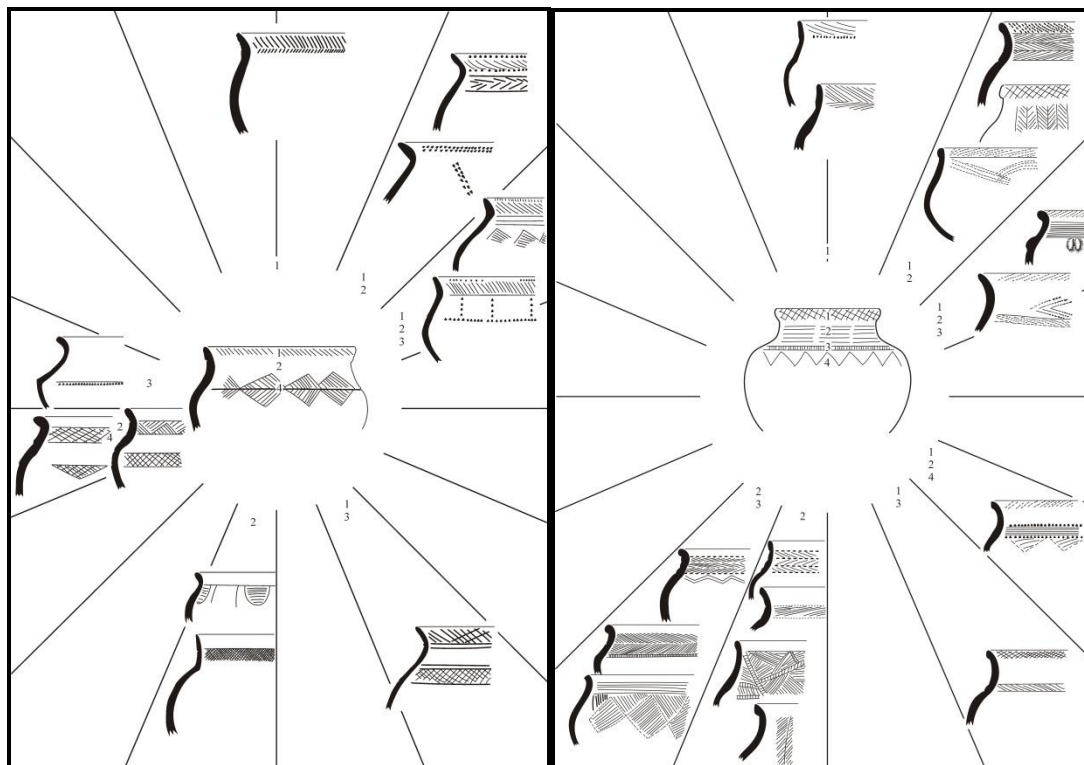


Figure 2.2: Definition of *Mzonjani* ceramics on the left and *Happy Rest* ceramics on the right (Adapted from Huffman 2007a).

After this initial intrusion, agro pastoralists seem to have abandoned the area until AD 900 because of adverse climatic conditions (Huffman 1996a). From AD 900 to 1000, *Zhizo* pottery (Figure 6.5) marks the second phase of occupation. *Zhizo* ceramics belong to the Nkope Branch of the Urewe Tradition (or Central Stream) (Figure 6.6). Initially it was thought that *Zhizo* people moved into the area to practise agriculture (Huffman 1996a). However, isotopic analysis shows that the climate was no better than today (Smith 2005). *Zhizo* farmers would therefore have found farming difficult, and some other factors must have lured them to the area. Presumably, they moved into the valley to take advantage of the East Coast trade (Huffman 2000; Smith 2005), where the Limpopo River acted as a route into the interior. The location of settlements (most are located well away from the rich agricultural soils around the floodplain because elephants would have destroyed the crops) as well as ivory chippings and exotic goods at Schroda (Hanisch 1980) suggest that trade was the main attraction. Ivory, like gold, was a lucrative export commodity, and historical accounts record large amounts of ivory reaching Sofala from the interior (Kusimba 1999). In addition, the wide distribution of *Zhizo*-period glass beads (Wood 2005) suggests that *Zhizo* people traded them for grain with more successful farmers outside the valley.

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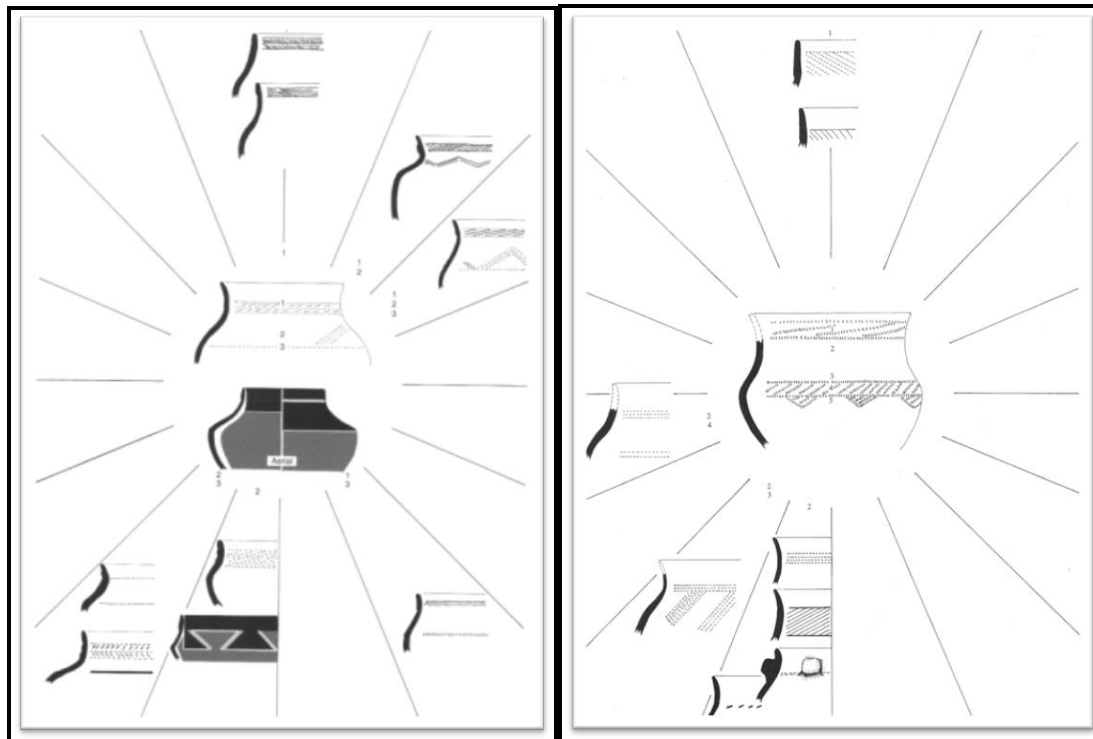


Figure 2.3: Definition of *Zhizo* ceramics on the left and *Leokwe* ceramics on the right (Adapted from Huffman 2007a).

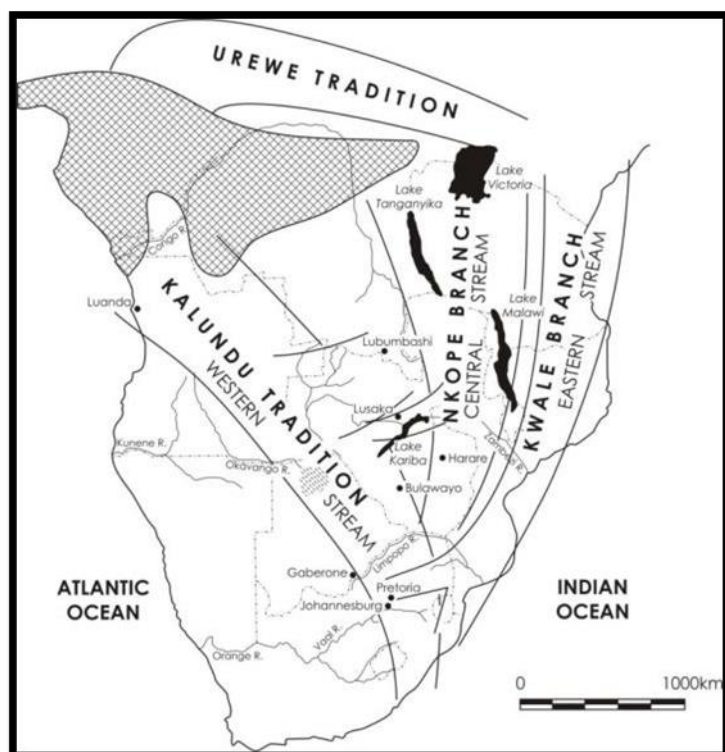


Figure 2.4: Map of southern Africa indicating migration routes of different Iron Age Traditions (Adapted from Huffman 2007a).

2.2.2.2. Middle Iron Age

After approximately 100 years, around AD 1010, the Zhizo political control over the area and coastal trade was terminated by the arrival of new agro pastoralists that archaeologists refer to as Leopard's Kopje. Leopard's Kopje ceramics are derived from the *Doornkop* facies (formerly Lydenburg) to the south (Huffman 2007a), an Early Iron Age phase of the Kalundu Tradition (Figure 2.4).

After replacing the Zhizo chiefdom, Leopard's Kopje people established their capital at K2, located at the base of Bambandyanalo Hill (Fouché 1937; Gardner 1963). K2 was occupied between AD 1000 and 1220 (Vogel 2000). This period was marked by higher rainfall (Smith 2005), resulting in an emphasis on floodplain agriculture (Huffman 2000; Smith 2005) allowing for population growth.

Changes in world view are marked by a shift away from the Central Cattle Pattern (CCP) to the elite Zimbabwe Pattern (ZP). The new ideology of sacred leadership was materialised when Leopard's Kopje people abandoned K2 for Mapungubwe, less than a kilometre away.

During this period (AD 1200 to 1250) of transition the ceramic style also changed (Figure 2.5). These transitional ceramic facies are now termed *Transitional K2*, or *TK2*.

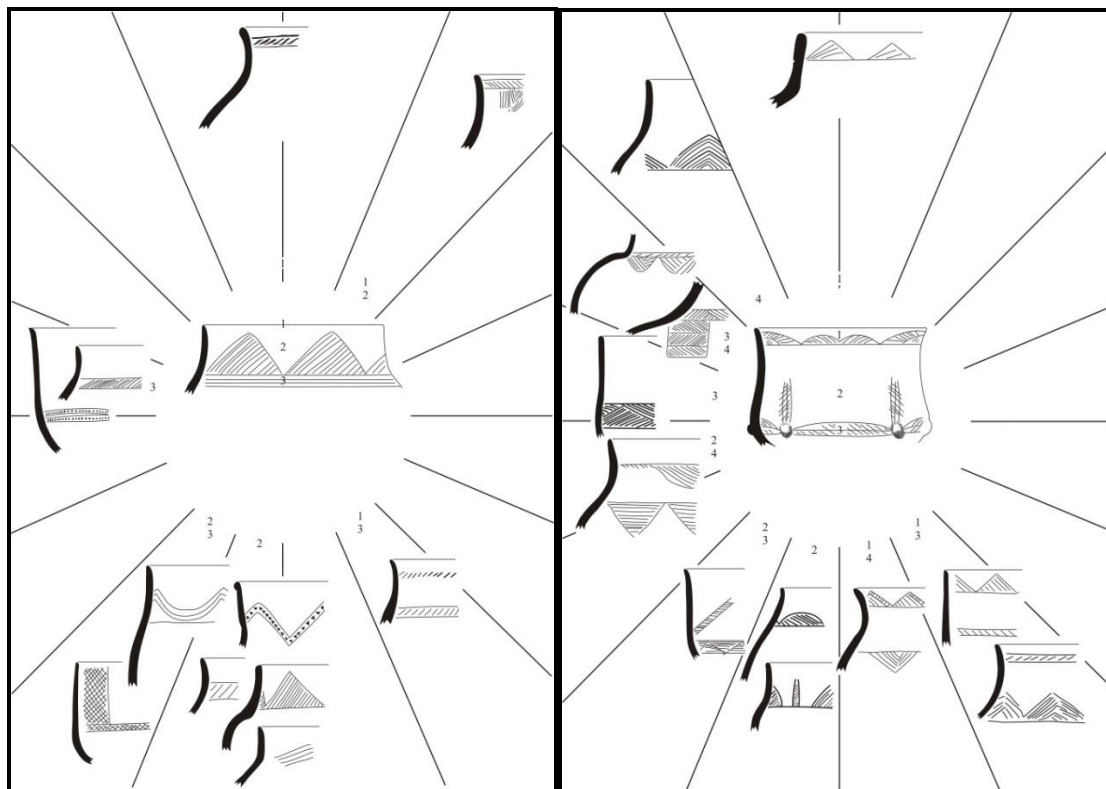


Figure 2.5: Definition of *K2* ceramics on the left and *TK2* ceramics on the right (Adapted from Huffman 2007a) Transitional occupation was equally divided between floodplain and escarpment where there is a clear distinction between cattle and agriculturally orientated settlements. By about AD 1250, the *TK2 facies* changed into classic Mapungubwe ceramics.

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2.2.3. Historical Information

In 1903 the copper deposits in the Musina area were investigated by Colonel John P Grenfell. He also established the Messina (Transvaal) Development Company Limited to exploit the copper deposits. The town of Messina now referred to as Musina was founded in 1904 on the farm Berkenrode, because of the exploitation of the copper deposits. It was proclaimed as town in 1957 (Hammerbeck & Schoeman 1976).

2.2.4. Background to the Venetia Mine and Cultural Landscape

The following information was obtained from the Venetia Limpopo Nature Reserve (VLNR) (van der Walt 2020) - The Vhembe/Dongola National Park was declared on 09 April 1998 (GN 490 in GG 18814). The Mapungubwe Cultural Landscape (MCL) was gazetted as a National Heritage Site by the South African Heritage Resources Agency (SAHRA) in December 2001. The MCL was inscribed on the United Nations Education, Scientific and Cultural Organization's (UNESCO) World Heritage List in 2003. In Government Notice No. 71 of 30 January 2009 (GN 31832) the then Minister Marthinus van Schalkwyk declared the MCL as a World Heritage Site in terms of the World Heritage Convention Act (Act 49 of 1999) and delegated specified powers of management to SANParks. The park name was changed to Mapungubwe National Park (MPNP) on 30 July 2004 (GN 900 in GG 26602). The park also forms the core of the Vhembe Biosphere Reserve. At international level, close liaison is required with the UNESCO World Heritage Centre and the Greater Mapungubwe Transfrontier Conservation Area (GMTFCA) involving Botswana, Zimbabwe and South Africa. The core area of the World heritage site comprises 28,168.66 ha. Various privately owned properties make up the buffer zone, which, added to the core, comprises some 100,000 ha.

Venetia Mine is located approximately 22km south of the Mapungubwe National Park. In 2014 the Unesco committee approved a new boundary and buffer zone for Mapungubwe in response to the past concerns regarding the impacts of mining on the site. The Venetia Mining Rights Area have been removed from the 2009 proclaimed boundary as per the 2014 revised buffer zone. Venetia Mine is surrounded by the VLNR that was established in 1991. The gazetted buffer zone surrounding the core of the Mapungubwe Cultural Landscape World Heritage Site (MCLWHS) extended to approximately 20 km from the core at the Mapungubwe Hill.

Since the listing of Mapungubwe as a World Heritage Site in 2003, the management authorities have always ensured co-existence between responsible diamond mining at Venetia, located on the periphery of the buffer zone, but with operational assets such as boreholes, pump stations and water storage dam located within the core of the World Heritage Site (WHS). The large section of the buffer zone falls in the De Beers VLNR whose objectives include maintaining the integrity and authenticity of the cultural landscape through continuous monitoring and impact assessments in the VLNR and areas affected by the Venetia Mine water provision assets. De Beers has had a long-term role in managing mining and sustainable conservation in the region.

The VLNR, which surrounds the Venetia Mine, has created a viable buffer between the mined area and the biophysical and cultural resources conservation area. The reserve, which now forms part of the MCLWHS buffer zone, has always added extra protection to cultural heritage sites around the core of the listed property.

The proposed project will not impact on any of the heritage attributes of the Mapungubwe WH property. Following the International Council on Monuments and Sites (ICOMOS) Impact Assessment rating for WHS

the impact of the proposed development on the property with the implementation of a chance find procedure is neutral/ slight. The proposed development will not affect the Outstanding Universal Value (OUV) of the WHS.

2.2.4. Cultural Resource Management (CRM) reports

The study area is located south of the World Heritage Site of Mapungubwe (Figure 2.6). Although the site is located outside of the World Heritage Site it is within the buffer zone and a vast amount of research is available on the general area. In addition, the University of the Witwatersrand was commissioned to conduct research on the Iron Age sites in the area (Huffman 2007 and 2008) and were consulted for this report. Reports included finds ranging from fossils and Stone Age sites to important Farming Communities/ Iron Age Settlements as well as burial sites. For the purposes of this report the term Iron Age will be used, in line with the referenced sources. The CRM assessments in Table 1 were consulted for this report and known sites in the area indicated in Figure 2.7.

Table 1. Studies consulted for this project include:

Author	Year	Project	Findings
Roodt, F.	2008	Phase 1 Heritage Resources Scoping Report Mogalakwena Bulk Water Supply Scheme – Phase 1 of Zone 1 Mokopane: Limpopo.	Burial grounds.
Roodt, F.	2008	Phase 1 Heritage Impact Assessment (Scoping & Evaluation) Landfill and Salvage Yard, Anglo Platinum: Mogalakwena Section, Limpopo.	MSA Scatter
Coetzee, F. P.	2011	Cultural Heritage Survey of the Proposed Provincial Road Deviation (P4380) Project for the Mogalakwena Platinum Mine, near Mokopane, Mogalakwena Municipality, Limpopo Province.	Historical structures and burial grounds
Murimbika, E.	2012	Proposed Eskom Platreef Power Line and Substation Project within Mogalakwena Local Municipality, Waterberg District in Limpopo Province: Archaeological and Heritage Impact Assessment Report.	Homestead remains and burial grounds
Roodt, F.	2012	Phase 1 Heritage Resource Impact Assessment (Scoping & Evaluation): Maruteng Wastewater Treatment Works Mokopane, Limpopo	No sites
Hutten, M.	2013	Proposed Water Supply Infrastructure for the Residential Clusters of Tshamahansi, Sekuruwe, Seema, Phafola, Maala Perekisi, Witrivier and Millennium Park in the Mogalakwena Local Municipality, Waterberg District, Limpopo Province.	Living Heritage site.
Hutten, M.	2014	Proposed Development of a Shopping Centre on Portion 1 of the Farm Kroonstad 468 LR, west of Marken in the Mogalakwena Local Municipality, Waterberg District, Limpopo Province	No sites
Van der Walt, J.	2016	Archaeological Impact Assessment for the Proposed Bulk Water Supply Pipelines from Pruissen to Piet-Se-Kop Reservoir, as Part of the Mogalakwena Water Master Plan, Mogalakwena Municipality Area, Limpopo Province.	Low significance Iron Age remains as well as some MSA stone tool scatters
Roodt, F.	2017	Proposed filling station and shopping complex at Bakenberg. Mogalakwena Local Municipality. Waterberg District. Limpopo Province.	A stone-walled settlement of the Langa Ndebele was located on top of Basogadi Hill (S23°53'03" E28°46'18).
Van der Walt, J.	2017	Heritage Impact Assessment (Required under Section 38(8) of the NHRA (No. 25 of 1999) Mogalakwena Municipality Water Master Plan: Phase 2A Bulk Water Supply Zone 1, Waterberg District Municipality, Limpopo Province.	Middle Stone Age stone tool scatters, Late Iron Age structural remains, historical stone walled structural remains and several burial grounds were recorded.
Birkholtz, P and Smeyatsky, I.	2019	Proposed Mogalakwena Mine Expansion Project near Mokopane, Limpopo Province	71 heritage sites ranging from Stone Age to living heritage features including dwelling and numerous burial sites.

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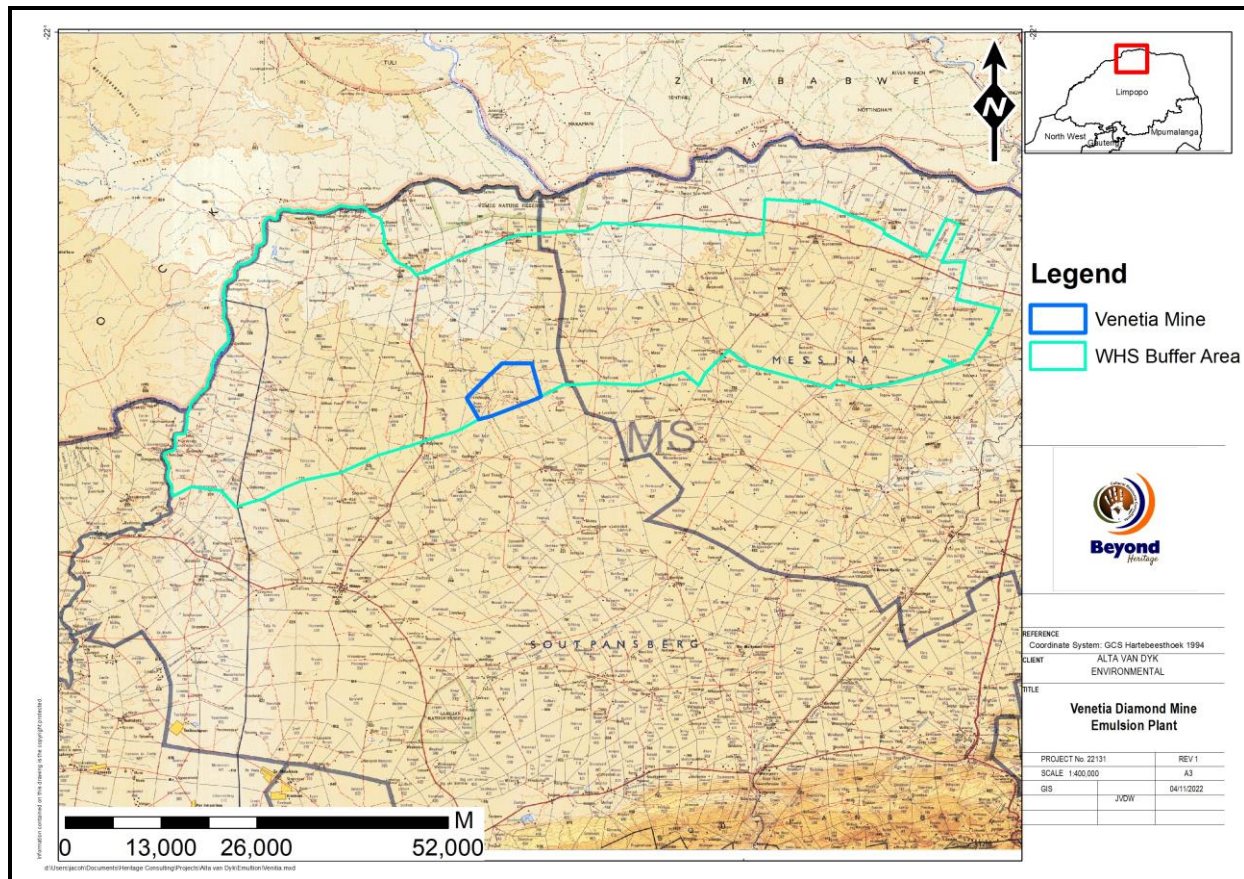


Figure 2.6. Venetia Mine in relation to the WHS Buffer zone.

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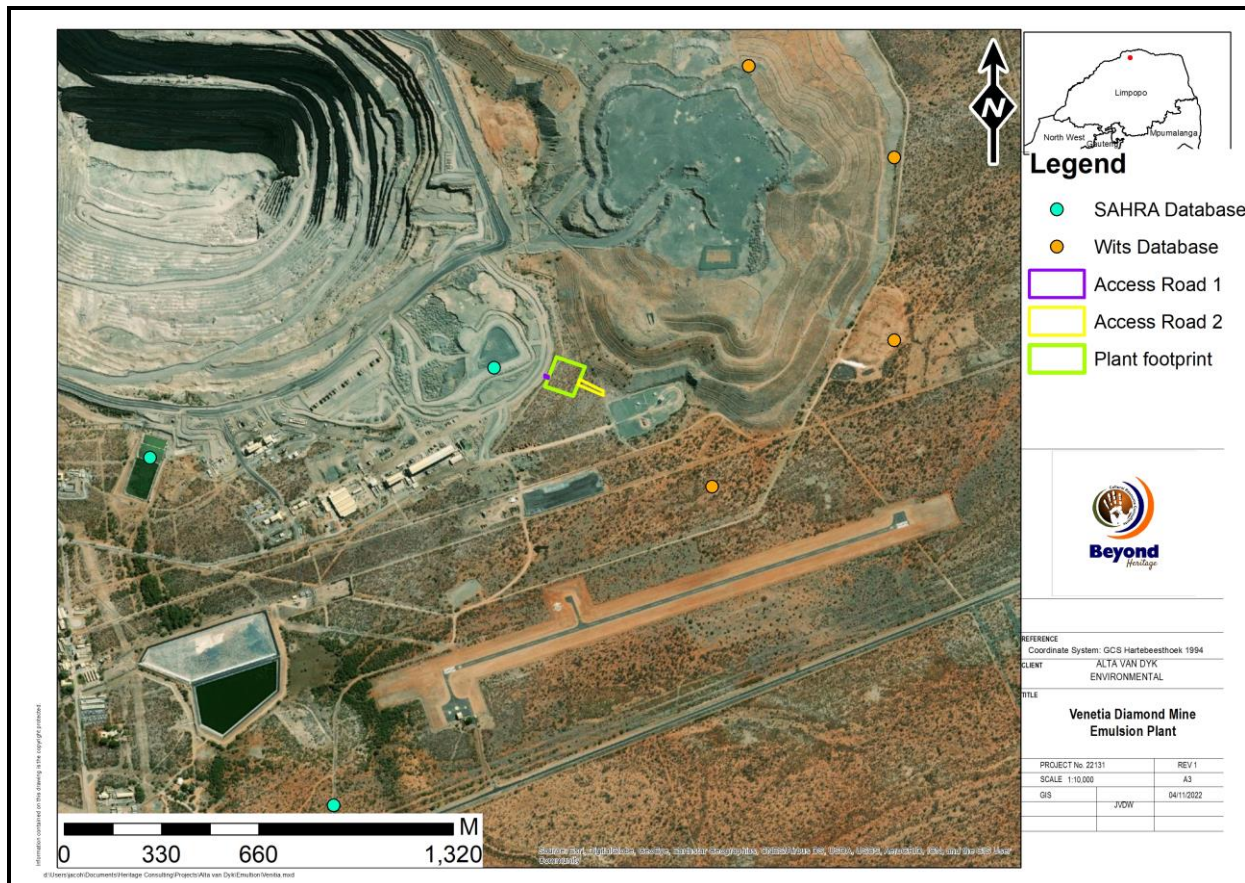


Figure 2.7. Known sites in relation to the Project.

3. Findings

3.1. Heritage resources

The prevailing vegetation type and landscape features of the larger area form part of the Musina Mupane Bushveld. The area is characterised by open woodland to moderately closed shrubveld, dominated by *Colophospermum mopane* on clayey bottomlands and *Combretum apiculatum* on hills. Where basalt occurs the area is dominated by *Colophospermum mopane* and *Terminalia prunoides*. On areas with deep sandy soils, moderately open savannah is dominated by *Colophospermum mopane*, *T. sericea*, *Grewia flava* and *Combretum apiculatum* (Mucina & Rutherford, 2006).

Databases consulted show that several Iron Age sites are on record in the wider area, but no sites are recorded within the proposed study area. The various Iron Age sites on record are all located on low hills overlooking the Koloape River. The general flat and sandy topography of the study area could explain the lack of Iron Age sites in the development footprint that are mostly located on focal points on the landscape. One heritage site – a cattle post – is on record approximately 180 m from the study area as BCP001. The site has already been destroyed by the surrounding mining activities. The Bandama end Chikure (2012) report also assessed the current project area and recorded no heritage sites within the development footprint (Figure 3.1). Considering the lack of known heritage sites in the study area and the highly transformed nature of the surrounding area no impact on heritage resources is expected by the proposed Emulsion Plant.

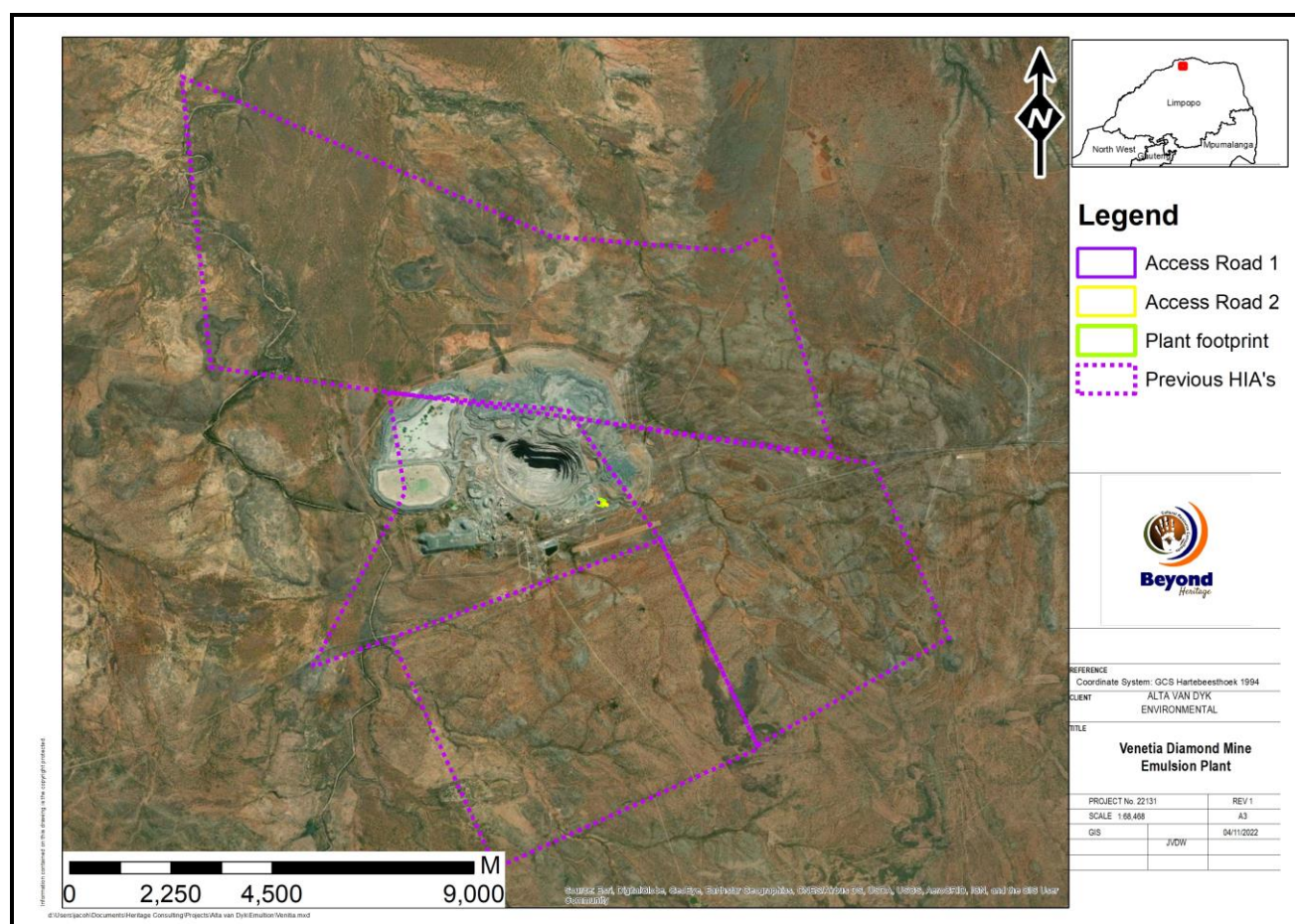


Figure 3.1. Area assessed by Bandama and Chikure (2012).

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Figure 3.2. General site conditions with surrounding mining developments visible.



Figure 3.3. General site conditions with surrounding mining developments visible.



Figure 3.4. General site conditions with surrounding mining developments visible.



Figure 3.5. General site conditions with surrounding mining developments visible.

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3.2. Paleontological Resources

Based on the SAHRA paleontological map the study area is of insignificant sensitivity (Figure 3.4) with no further palaeontological studies required for the study area.



Figure 3.6. SAHRIS palaeo-sensitivity map for the site for the proposed development shown within the yellow polygon. Background colours indicate the following degrees of sensitivity:

Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

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4. Conclusion

The project area and surrounds have been subjected to several HIAs (Gaigher 2013, Pistorius 2011, Bandama & Chikure 2012, Mathoho 2022). The Bandama end Chikure (2012) report assessed the current project area and recorded no heritage sites within the development footprint. Databases consulted show that several Iron Age sites are on record in the wider area, but no sites are recorded within the proposed study area. The various Iron Age sites on record are all located on low hills overlooking the Kolohe River, with one site located within the powerline corridor. The general flat and sandy topography of the study area could explain the lack of Iron Age sites that are located on focal points on the landscape. One heritage site – a cattle post - is on record approximately 180 m from the study area as BCP001. The site has already been destroyed by the surrounding mining activities and no further impact on heritage sites is expected by the development.

If any heritage resources are uncovered a Chance Find Procedure should be implemented. According to the palaeo sensitivity map on SAHRA, the study area is of insignificant/no sensitivity and no further palaeontological studies are required. Considering the lack of known heritage sites in the study area, the highly transformed nature of the surrounding area and the low palaeontological importance of the study area, exemption from a Phase 1 HIA is supported.

Any further queries can be forwarded to Jaco van der Walt on Cell: +27 82 373 8491 or to jaco@heritageconsultants.co.za.

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5. References

- Eastwood, E.B. & Cnoops, C. 1999. Results of the Limpopo-Shashi Confluence area rock art study. 2 Vols. Louis Trichardt: Palaeo-Art Field Services.
- Fouché, L. (Ed) 1937. Mapungubwe: Ancient Bantu civilization on the Limpopo. Cambridge: Cambridge University Press.
- Gaigher, S. 2000. Preliminary Archaeological Assessment. Proposed shopping centre in rural Messina
- Gardner, G. A. 1963. Mapungubwe: Volume II. Pretoria: J.L. Van Schaik.
- Hall, S. & Smith, B. 2000. Empowering places: rock shelters and ritual control in farmer-forager interactions in the Northern Province. South African Archaeological Society Goodwin Series 8: 30-46.
- Huffman, T.N. 2000. Mapungubwe and the origins of the Zimbabwe culture. In M. Leslie & T. Maggs (Eds), African Naissance: The Limpopo Valley 1 000 Years Ago. (South African Archaeological Society Goodwin Series 8), pp. 14-29.
- Kuman, K., Le Baron, J.C. & Gibbon, R.J. 2005. Earlier Stone Age archaeology of the Vhembe-Dongola National Park (South Africa) and vicinity. *Quaternary International* 129: 23-32.
- Kuman, K, Gibbon, R, Kempson, H, Langejans, G, Le Baron, J, Pollarolo, L & Suttin, M. 2005. Stone Age signatures in northernmost South Africa: early archaeology in the Mapungubwe National Park and vicinity. In d'Errico, F. & Backwell, L. (eds.) 2005. From tools to symbols: from Early Hominids to Modern Humans. Johannesburg: Witwatersrand University Press.
- Kusimba, C.M. 1999. The Rise and Fall of Swahili States. Walnut Creek: AltaMira.
- Le Baron, J.C., Kuman, K. & Grab, S.W. 2010. The landscape distribution of Stone Age artefacts on the Hackthorne Plateau, Limpopo River Valley, South Africa. *South African Archaeological Bulletin* 65: 123-131.
- Mason, R. J., 1962. Prehistory of the Transvaal. Johannesburg: Witwatersrand University Press.
- National Heritage Resources Act NHRA of 1999 (Act 25 of 1999)
- Pistorius, J. 2016. A Scoping Heritage Study for the Proposed Musina Copper Project near Musina in the Limpopo Province.
- Pollarolo, L. & Kuman, K. 2009. Excavation at Kudu Koppie site, Limpopo Province, South Africa. *South African Archaeological Bulletin* 64: 69-74.
- Sumner, T.A. 2013. A refitting study of late Early to Middle Stone Age lithic assemblages from the site of Kudu Koppie, Limpopo Province, South Africa. *Journal of African Archaeology* 11: 133-153.
- SAHRIS South African Heritage Resource Information System (viewed November 2017)
- Van der Walt, J. 2022. Heritage Impact Assessment for the proposed Venetia Diamond Mine Independent Power Producer Project, Limpopo Province. Unpublished report.
- Van Ewyk, J.F. 1987. *The Prehistory of an Iron Age Site on Skutwater*. Master's dissertation, University of Pretoria
- van Schalkwyk, J. 2015. Cultural Heritage Impact Assessment For The Proposed Expansion Of The Existing Waste Disposal Site In Musina, Limpopo Province.

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Van Doornum, B. 2008. Sheltered from change: hunter-gatherer occupation of Balerno Main Shelter, Shashi-Limpopo confluence area, South Africa. *Southern African Humanities* 20: 249-284.

Wood, M. 2005. Glass Beads and Pre-European Trade in the Shashe-Limpopo Region. Masters Dissertation, University of the Witwatersrand, Johannesburg.

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Declaration of Independence

Specialist Name	Jaco van der Walt
Declaration of Independence	<p>I declare, as a specialist appointed in terms of the National Environmental Management Act (Act No 107 of 1998) and the associated 2014 Environmental Impact Assessment (EIA) Regulations (as amended), that I:</p> <p>I act as an independent specialist in this application;</p> <p>I will 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;</p> <p>I declare that there are no circumstances that may compromise my objectivity in performing such work;</p> <p>I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;</p> <p>I will comply with the Act, Regulations and all other applicable legislation;</p> <p>I have no, and will not engage in, conflicting interests in the undertaking of the activity;</p> <p>I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;</p> <p>All the particulars furnished by me in this form are true and correct; and I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.</p>
Signature	
Date	16/05/2022

a) Expertise of the specialist

Jaco van der Walt has been practising as a CRM archaeologist for 23 years. He obtained an MA degree in Archaeology from the University of the Witwatersrand focussing on the Iron Age. Jaco is an accredited member of ASAPA (#159) and has conducted more than 500 impact assessments in Limpopo, Mpumalanga, North West, Free State, Gauteng, KZN as well as the Northern and Eastern Cape Provinces in South Africa. Jaco has worked on various international projects in Zimbabwe, Botswana, Mozambique, Lesotho, DRC, Zambia, Guinea, Afghanistan, Nigeria and Tanzania. Through this, he has a sound understanding of the IFC Performance Standard requirements, with specific reference to Performance Standard 8 – Cultural Heritage.