

Conservation Management Plan Redan rock art site [9/2/277/0012] Kookfontein

Sedibeng District Municipality
Gauteng
South Africa

Compiled by

Jeremy C. Hollmann

Principal Investigator: rock art

Association of Southern African Professional Archaeologists (ASAPA)

Membership number 053

Compiled for

M2 Environmental Connections

For submission to the South African Heritage Resources Agency (SAHRA)

December 2023

Declaration	3
Conservation Management Plan: Redan rock art site	4
Introduction	4
Steps followed in the development of this CMP for the Redan rock art site	5
Guiding principles of the CMP	5
Statement of Significance	6
Site description	6
Site History	7
Stakeholders	11
Legal framework	12
Management and maintenance guidelines	12
Maintenance & Management budget	12
Site Management	12
Site vegetation and firebreak	13
Site infrastructure – existing infrastructure and that required for accessing the site:.....	13
Access and Access control infrastructure	14
Monitoring	14
Requirements for implementing the CMP	15
References	21

Declaration

I, Jeremy Hollmann, declare that I am an independent archaeological consultant specialising in rock art. I have no links to the client commissioning the report or to the applicants for the mining project

As a member of the Association of Southern African Professional Archaeologists (ASAPA), (membership number 053) <https://asapa.co.za/> I subscribe to the following code of conduct for Archaeological Impact Assessors and Contractors:

1. Consider all reasonable alternatives when assessing mitigation or destruction of cultural heritage resources.
2. Inform employers or clients of any professional or personal interest that may impair the objectivity of their work.
3. Provide clients with access to the provisions of this code and the Minimum Standards of Practice.
4. Assist government departments wherever reasonable by supplying adequate and accurate information.
5. Report on concerns beyond their own brief to the relevant heritage resources authority and ASAPA.
6. Respect requests for confidentiality expressed by clients (confidentiality can only be applied to information of non-archaeological nature gained in the course of the contract), provided that such confidence will not contribute to unnecessary degradation of the cultural heritage resources or jeopardise the interests of the public in respect of the national estate.
7. Should a conflict develop, ASAPA members shall notify the client in writing, and advise the appropriate heritage authority that such conflict exists.
8. Specify limitations, constraints and knowledge gaps and clearly indicate aspects that could not be investigated, and the reasons for these omissions.
9. Record all relevant communications and decisions in writing.
10. Involve specialists where appropriate or required and not attempt to conduct work for which they are not accredited, or do not have the necessary experience and/or expertise.
11. Reflect any community or stakeholder issues that have been identified and indicate how each has been considered/resolved.
12. Recognise, respect, and protect where necessary, the knowledge of local and affected communities.
13. Respect the confidentiality requirements of stakeholder communities, e.g., initiation sites, ceremonies, burial rites and sacred artefacts and localities where these are affected.
14. Accept that, in cases of query or conflict of interest, evaluations shall be peer reviewed, where possible under the aegis of ASAPA and/or the relevant heritage authorities.
15. Notify the appropriate heritage authorities of any technical and legal loopholes in the legislation.
16. Refrain from unethical bidding for contracts and allow the prospective client/s to select professional archaeologists on the basis of ability and expertise as accredited by ASAPA and the legislation and guidelines of the various southern African countries.
17. Describe fully in writing all salaries or fees and the extent and kinds of service to be rendered.
18. Accept payment for a particular service or report from one source only, except with the full knowledge and consent of multiple parties, were so concerned.
19. Refrain from undertaking assessments for which they are not accredited, or do not have, or cannot provide, the relevant experience and/or expertise.
20. Not mislead the public or clients in any way
21. Refuse to accept briefs that involve benefit from the illicit sale of protected material or any other illegal activities.
22. Refuse to accept limited briefs, and ensure that all aspects and areas associated with the development are covered, e.g., increased traffic, tourism activities, construction access roads, or position of construction camps.



JC Hollmann

Signed: 04 December 2023

Conservation Management Plan: Redan rock art site

Introduction

This Conservation Management Plan (CMP) was commissioned in response to the development of coal mining operations by Glubay Coal (Pty) Ltd. Mining will take place within about 190 m to the north, east and west of the Redan rock art site (Figure 1). The life of the mine is given as approximately 30 years (see Final Scoping Report for the Springfield Coal Mining and Redan Siding Project). Heritage legislation (including the NHRA 1999 Act 25) requires that this Grade II Heritage Site be protected from direct and secondary impacts that pose a threat to the site's integrity. The CMP also makes provision for visitation to the site. The purpose of this Conservation Management Plan (CMP) is therefore to define practical management and mitigation measures in accordance with the applicable legislation and best practice standards.



Figure 1. Proposed development of the coal mining operation in the vicinity of the Redan rock art site. Map supplied by M2 Environmental Connections

Steps followed in the development of this CMP for the Redan rock art site

1. A rock art specialist with previous experience and knowledge of the Redan rock art site was appointed by M2 Environmental to compile this CMP
2. All available information about the Redan rock art site was gathered and incorporated into the CMP
3. A statement of significance for the Redan rock art site in which the values and cultural significance are detailed was drawn up by the rock art specialist for inclusion in the CMP
4. Specific objectives have been identified and strategies for meeting the objectives outlined in the CMP. The CMP includes schedules of action and implementation to be followed. These include monitoring and evaluation protocols. All actions taken require documentation by the persons responsible for the particular actions
5. Stakeholders have been identified in the CMP and liaison and consultation with these institutions, organisations and individuals is required when any changes to the CMP are considered
6. The CMP is to be implemented in accordance with the actions defined. Glubay Coal must provide a budget and other resources for the implementation of the CMP.

Guiding principles of the CMP

Certain guiding principles must be followed in the compilation of a CMP:

1. Minimum intervention. Any actions that have an impact on the physical attributes of the Redan rock art site should involve the least possible disturbance to the site. Interventions can only be undertaken once a permit from SAHRA has been applied for and granted
2. Reversibility. Any conservation and protective interventions must be reversible
3. Preventative measures must be put in place to prevent negative impacts to the Redan rock art site
4. Budget for maintenance and management must be created
5. Responsibility for aspects of implementation must be specified

Statement of Significance

The Redan rock art site is the only known engraving site with schematic (geometric) designs in Gauteng. Located in the Vaal river basin, one of the areas richest in rock engravings it is one of the easternmost rock art sites in South Africa that has schematic designs. The rock art is linked to KhoeSan people, some who lived in the area for thousands of years, others who arrived between approximately 1500 and 150 years ago. Redan rock art site therefore has historical value. The engraved designs on the rock at Redan are a cultural, social and aesthetic expression of the communities that created and used the site over an unknown period of time. These designs are the unique expression of important values and beliefs of the KhoeSan people who may have used the site as a ceremonial centre. Some of the engravings may depict items of clothing (bags aprons and ornaments) as well as designs made on items such as aprons, bags and sticks, as well as painted on the body on certain occasions, such as women's initiation. The Redan rock art site thus has aesthetic value because of the aesthetic characteristics of the schematic designs that are evidence of the creative skills of the people who made the designs. The site has scientific value in terms of its information potential for ongoing research and especially the significance of the Redan rock art site and its links to KhoeSan history. The presence of the rocks in the landscape and on which the engravings were made were chosen, also had cultural significance. The rocks have been smoothed in certain places and natural cavities have been enlarged and smoothed by human agency. The location of the rock art site, close to a stream and a wetland suggests that like many other rock art sites with schematic designs, the location of the place near water was important for ceremonial purposes. These features show that KhoeSan people were interacting with the rock itself and its situation in the landscape, not only using it as a surface on which to make engravings. Redan rock art site has historical value because it testifies to the presence of KhoeSan people in this part of the country and emphasises their role in the history of South Africa. The site has educational value in that it is evidence of the historical presence of KhoeSan peoples in this part of the country. Redan rock art site has touristic value because it is one of the few places in Gauteng where the presence of KhoeSan peoples and evidence of their culture can be appreciated.

Site description

Redan rock art site is located on portion 29/545 of the farm Kookfontein in the Sedibeng District Municipality, approximately 700 m west of the M61 between Vereeniging and

Meyerton, close to the Springfield Junior Secondary School (Chan 2017: 35). The site is located 50 m east of a wetland area which was formerly a stream that flowed into the Klip River (Chan 2017: 36). On the other side of the wetland (i.e. west of the engraving site) are remnants of the Springfield Colliery. To the north are agricultural fields..

The Redan rock art site comprises an isolated cluster of Ecca sandstone outcrops about 0.1957 ha in area, approximately 55 m along a NW to SE axis and 45 m (at its widest) along a NE to SW axis. Although it is not more than 2 m above ground level the outcrop stands out in contrast to the surrounding flat terrain. Before 20th century industrialisation the outcrop would have been a local landmark.

The co-ordinates of the site are:

S 26 36 40.3

E 27 58 05.8

Altitude: 1440 m asl

Site History

The history of the Redan rock art site begins with the presence of KhoeSan groups in the area. Groups of hunter-gatherers, the ancestors of the peoples that are known today as 'San' or 'Bushmen' probably ranged the area over thousands of years. Then, probably between 1500 and 200 years ago, groups of Khoe-speaking people, the Khoekhoe, entered the area. The Redan rock art site was created either by groups of hunter-gatherers, or by Khoekhoe, possibly a Khoekhoe group known as the Koranna. The question of which communities created and used the Redan rock art site is still being researched.

The location of the site, on the sandstone rocks may have been chosen because of the prominence of the rocks in the surrounding landscape and its proximity to water. From research conducted in the Northern Cape and North West Province, it seems that sites with schematic designs like those at Redan rock art site are usually close to water. Researchers argue that the choice of sites close to water was a cultural preference (Morris 1998, 2002; 2010a, 2010b; Fock 1969; Hollmann 2013, 2017). The engravings themselves are the archaeological evidence of the

presence of KhoeSan peoples in the area. As far as is known there is no other archaeological evidence directly associated with the site.

In the 1950s, probably in response to fears that the site would be damaged (Prins 2007: 45), Cecil Van Riet Lowe of the Historic Monuments Commission ordered the removal of the largest of the geometric motifs from the Redan engraving site. The engraving was taken to the University of the Witwatersrand in Johannesburg and it is displayed in the Origins Centre Museum.

The cultural and heritage importance of Redan was officially recognised in 1971 when it was declared a National Monument (Figure 4). In terms of the current National Heritage Resources Act (Act 25 of 1999), or NHRA it is a Provincial Heritage Site (Grade II) under the administration of the South African Heritage Resources Agency (SAHRA). Redan is the only remaining major rock art site in Gauteng (Chan 2017: 34, citing Prins 2005: vi). There were another six engraving sites in the Vereeniging area, but these have all been destroyed by construction and mining activities and the raising of the level of the Vaal River (Prins 2007). Redan is therefore an important and exceptional heritage resource.

Around the time that it was declared a National Monument the site was enclosed by a 2 m high diamond mesh fence with angled steel poles, barbed wire and a gate, together with a National Monuments Commission plaque. Despite these measures the Redan engraving site remained under threat from human activity. The fence was subsequently looted and the site became degraded by litter and a small amount of graffiti. There was unsupervised access to the site via a gate at the nearby Springfield Junior Secondary School.

The Redan rock art site was systematically recorded by Alec Willcox and Harald Pager in the 1960s (Willcox & Pager 1967) and a numbered plan of the rock engravings was published. The most authoritative and in-depth study of Redan to date is the (2005) doctorate by Marguerite Prins, 'The primordial circle: the prehistoric rock engravings of Redan, Vereeniging'. Research into Redan rock art site is ongoing.

Voorts maak ek bekend dat hierdie kennisgewing op 23 Augustus 1971 in werking tree.
D. C. H. UYS, Minister van Landbou.

And I further make known that this notice shall come into operation on 23 August 1971.
D. C. H. UYS, Minister of Agriculture.

BYLAE

SCHEDULE

Die Bylae van Goewernementskennisgewing 1299 van 1971 word hierby gewysig deur—

The Schedule to Government Notice 1299 of 1971, is hereby amended by—

- (1) die tariewe vir die berekening van die produsenteprys vir gesonde afval vir die beheerde gebied van Durban soos in Deel 1 van die Aanhangel daarvan gespesifiseer, deur die tariewe in Deel 1 van die Aanhangel hiervan te vervang; en
- (2) die tarief vir die berekening van die produsenteprys vir teruggeloue beesafval vir die beheerde gebied van Durban soos in Deel 2 van die Aanhangel daarvan gespesifiseer, deur die tarief in Deel 2 van die Aanhangel hiervan te vervang.

- (1) the substitution for the tariffs for the calculation of the producers' prices for sound offal for the controlled area of Durban as specified in Part 1 of the Annexure thereto, of the tariffs as set out in Part 1 of the Annexure hereto; and
- (2) the substitution for the tariff for the calculation of the producers' price for detained cattle offal for the controlled area of Durban as specified in Part 2 of the Annexure thereto, of the tariff as set out in Part 2 of the Annexure hereto.

AANHANGSEL

ANNEXURE

1. GESONDE AFVAL—PER 100 KILOGRAM KOUE GEDRESSEERDE KARKASMASSE:

1. SOUND OFFAL—PER 100 KILOGRAM COLD DRESSED CARCASE MASS:

Beheerde gebied	Beesafval		Kalfafval	Lam, skaap- en bokafval	Varkafval
	Met heet of effens gestypte lewer	Sonder lewer			
Durban.....	R 3,60	R 2,92	R 2,43	R 3,67	R 0,79

Controlled area	Cattle offal		Lamb, sheep and goat offal	Pig offal
	With whole or slightly trimmed liver	Without liver		
Durban.....	R 3,60	R 2,92	R 2,43	R 0,79

2. TERUGGEGHEUE BEESAFVAL—PER 100 KILOGRAM KOUE GEDRESSEERDE KARKASMASSE:

2. DETAINED CATTLE OFFAL—PER 100 KILOGRAM COLD DRESSED CARCASE MASS:

Beheerde gebied	Tarief R
Durban.....	2,65

Controlled area	Tarief R
Durban.....	2,65

DEPARTEMENT VAN NASIONALE OPVOEDING

DEPARTMENT OF NATIONAL EDUCATION

No. 1415 20 Augustus 1971
VERKLARING VAN NASIONALE GEDENKWAARDIGHEID

No. 1415 20 August 1971
DECLARATION OF A NATIONAL MONUMENT

Kragtens die bevoegdheid my verleen by artikel 10 (1) van die Wet op Nasionale Gedenkwaardighede, 1969 (Wet 28 van 1969), verklaar ek, Johannes Petrus van der Spuy, Minister van Nasionale Opvoeding, hierby die terrein met rotgravures te Redan, distrik Vereeniging, as nasionale gedenkwaardigheid.

By virtue of the powers vested in me by section 10 (1) of the National Monuments Act, 1969 (Act 28 of 1969), I, Johannes Petrus van der Spuy, Minister of National Education, hereby declare the site with rock engravings at Redan, District of Vereeniging, to be a national monument.

Beskrywing.—'n Omheinde terrein, ongeveer 4 047 vierkante meter (een acre) groot, synde 'n gedeelte van die restant van Gedeelte 29 van die plaas Kookfontein 545 IQ (Kaart 6094/55 van die Landmeter-generaal) en geleë noor'boos van die bakens geletter N op bowermide kaart.

Description.—A fenced site, approximately 4 047 square metres (one acre) in size, being a portion of the remainder of Portion 29 of the farm Kookfontein 545 IQ (Diagram 6094/55 of the Surveyor-General) and situated north-east of the beacon marked N on the aforementioned diagram.

Wetenskaplike belang.—Hierdie petrogliewe is 'n goeie voorbeeld van abstrakte kuns wat gedurende die Steentydperk beoefen is. Die tekeninge het waarskynlik 'n seremoniële of mitologiese betekenis gehad.

Scientific value.—These petroglyphs are a good example of abstract art practised during the Stone Age. The drawings probably had a ceremonial or mythological significance.

J. P. VAN DER SPUY, Minister van Nasionale Opvoeding.

J. P. VAN DER SPUY, Minister of National Education.

Figure 2. Declaration of Redan rock art site as a National Monument in Government Gazette 3232, 20 August 1971. This declaration means that it is a formally declared Grade II Heritage Site.



Figure 3. In the 1960s Alec Willcox and Harald Pager surveyed and mapped the engravings at the Redan rock art site. This diagram was published in 1967 (Willcox & Pager 1967 National Heritage Resources Act, (Act No.25 of 1999)

Stakeholders

Glubay Coal management must liaise and consult with the following institutions, groups and individuals and groups before making and implementing any decisions regarding the management of and access to the Redan rock art site. Note that such consultation and liaison is in addition to the terms stipulated in the National Heritage Resources Act, (Act No.25 of 1999) which requires that any physical changes to the Redan rock art site and the buffer area around the site require a permit from SAHRA.

The stakeholders identified are:

1. North West University. Researchers and academics at the university have conducted and supervised research on the Redan rock art site and maintain an interest in developments there:
Dr Claudia Gouws (Claudia.Gouws@nwu.ac.za)
Emeritus Professor Johan Tempelhoff (Johann.Tempelhoff@nwu.ac.za)
2. South African Archaeological Society, Northern Branch. Chairperson as of November 2023:
Mr SJ de Klerk (sareljdeklerk@gmail.com)
083 386 1035
3. Vaal Teknorama. The Teknorama conducts guided tours of Redan rock art site, especially for school groups. As of November 2023 there are two guides:
Sipho Khumalo (SiphoK@sedibeng.gov.za)
Neville Felix (NevilleF@sedibeng.gov.za)
4. Springfield Junior Secondary School. Close Proximity to Redan rock art site:
M.I.Sithole
016 363 1000
5. Councillor for Ward 45 Emfuleni Local Municipality:
Elize Aucamp
082 875 6212

Note that this list was compiled in November 2023. The composition of the list of stakeholders and other interested parties is likely to change. Glubay Coal must stay in touch with the stakeholders and ensure that the contact details of stakeholders are kept up to date. Glubay Coal is responsible for the identification of new stakeholders and to add new stakeholders to the list.

Legal framework

Redan rock art site is a Provincial Heritage Site and is therefore a 'no go zone' for any and all activities that pose a potential threat to the integrity of the site (cross reference to where these threats are detailed). This includes the prohibition of any overhead structures such as powerlines above any part of the rocks.

Legislation applicable to the CMP for Redan rock art site is the National Heritage Resources Act, (Act No.25 of 1999). Section 38(1). The Act stipulates that cultural heritage resources may not be disturbed without authorisation from SAHRA. A permit must be applied for from SAHRA to make *any* alteration at the site *and within* the buffer zone around the site.

Management and maintenance guidelines

The Redan rock art site is fragile and vulnerable and requires careful management. The rock art is subject to natural weathering processes and is disintegrating in places. All possible measures must be taken to mitigate damage to the site in accordance with the applicable legislation and best practice standards.

The Redan rock art site is a well-known archaeological attraction and its location in Gauteng means that it is periodically visited by interest groups including visitors from the Vaal Teknorama, the Archaeological Society of South Africa, researchers and members of the public (see Stakeholders). The Management and Monitoring Guidelines specified here make provision for controlled visitation.

Maintenance & Management budget

Glubay Coal must budget for the implementation of all the measures specified in the Management and Monitoring Guidelines (Table 1; Table 2).

Site Management

The most important priorities for the management of the Redan rock art site are to prevent damage to the rock art site by human activities and to safeguard the rock art site and the surrounding rocks from fire.

Site vegetation and firebreak

It is imperative that fire be kept away from the rocks to prevent blackening and potential cracking of the rocks due to the heat of the fires.

To prevent damage by fire the vegetation in the area around all of the rocks of the outcrop (not only those that are engraved) Glubay Coal must keep the vegetation trimmed short (not removed) within a 5 metre radius. Glubay Coal must apply for a permit in terms of Section 35 of the NHRA to get permission to trim the vegetation regularly.

The area defined must be determined on site in the presence of the rock art specialist and in consultation with a representative of Glubay Coal (eg. the Head of Environmental Compliance and/or the Environmental Control Officer)

Site infrastructure – existing infrastructure and that required for accessing the site:

There is currently no infrastructure at the site. The lack of fencing makes the site vulnerable to chance visitation and the possibility of damage to the rock art through indiscriminate walking on the engraved surfaces, theft and vandalism.

There may however be no point in erecting a fence around the site as in the past (and at other rock art sites), fences were stolen. For the time being, and subject to review, the CMP suggests that the fence that will enclose the mine and the presence of 24 hour security at the mine including access control would prevent unauthorised access to the Redan rock art site.

Nonetheless a barrier of closely spaced short poles in a 5 m radius of the rocks at the rock art must be installed (subject to SAHRA's approval) to keep vehicles from entering the site. This action must only be implemented once a permit has been applied for and if approved by SAHRA.

There should be signage at the site (this will require a permit from SAHRA). Details of the signage are given below (Table 1, point 8).

Access and Access control infrastructure

Currently the Redan rock art site is readily accessible by vehicle as a farm road passes within metres of the rocks. There is no fence to the property. The site is freely accessible and there is no formal access control. The situation will change if mining commences.

According to information received from the Glubay Coal Technical Team the rock art site will be bordered to the north, east and west by berms around the East Pit (Figure 1). The berms are about 190 m from the rock art site. The area to the south of the rock art site will remain open, undeveloped veld for 300 to 500 m. A conveyor belt will run to the south and east of the rock art site. The conveyor belt will be over 500 m from the rock art site and should pose no threat to the rock art site. A processing plant and stockpile area will be located over 400 m to the south west of the rock art site.

The Glubay Coal Technical Team confirmed that there will be 24 hour security on the property and that no unauthorised visitors will be granted access to the Redan rock art site (email to Jeremy Hollmann from Hanjo Fourie [M2 Environmental] dated 28/11/2023).

Only visitors who have made arrangements for access to the rock art site with Glubay Coal should be granted access to the rock art site. Glubay Coal must grant access to all reasonable requests from bona fide applicants. Glubay Coal must make provision for visitors to access the rock art site on weekends and public holidays

Glubay Coal must maintain a Visitor's Book in which the particulars of every visitor is recorded (Table 2). Visitors must be accompanied by a person who is accountable to Glubay Coal. This person must ensure that visitors do not damage or attempt to steal the engravings, make graffiti, or pollute the site. A maximum of 15 visitors at one time is allowed to visit the site.

Monitoring

Monitoring activities will be required on an ongoing basis). Glubay Coal must appoint a suitably qualified rock art specialist to comply with the requirements of the CMP.

The state of conservation of archaeological and rock art resources must be monitored by a rock art specialist (see Table 2). A baseline condition assessment (photographic and written) of the

number and condition of the rock art must be carried out by a rock art specialist as soon as possible (Table 1).

Specialist monitoring by a rock art specialist is required to check on weathering and documentation of the paintings every two years, preferably in conjunction with the Gauteng Provincial Heritage Resources Authority (GPHRA).

Should the condition of the site remain stable the requirement for specialist monitoring could be changed to one specialist visit every 5 years. However, Glubay Coal must immediately inform SAHRA and the GPHRA bring in specialist assistance in the event of any sudden changes to the rock surfaces and the environment (eg. ground subsidence) around the rock art site.

Glubay Coal is responsible for controlling access to the rock art site. Glubay Coal must maintain a visitor's book for the rock art site in which the names, addresses and comments of visitors is recorded. Glubay Coal must share this information with SAHRA and the GPHRA

Requirements for implementing the CMP

Once the CMP has been approved by SAHRA the plan can be implemented. The activities, requirements and the parties responsible are specified on the following page in Table 1. The requirements for ongoing management of the site are detailed in Table 2 (below)

Table 1. Requirements for implementing the CMP for Redan rock art site

	Activity	Responsible	Requirements
1	Compile a photographic inventory of the Redan rock art to establish a baseline condition against which to monitor any changes to the rock art. <i>This is a priority and must be carried out once SAHRA has approved the CMP</i>	Rock art specialist	Record and catalogue all the rock art at the Redan rock art site
2	Deposit photographic inventory into archives	Rock art specialist	Lodge the photographic inventory with Glubay Coal, SAHRIS, SARADA, Vaal Teknorama, North West University and the African Rock Art Digital Archive (ARADA) at the University of the Witwatersrand
3	Update site details and upload a selection of photographs to SAHRIS. To be done after the site has been mitigated (see Point 1 above)	Rock art specialist	Provide SAHRA with updated information about the Redan rock art site, including reports and photographs (once off)
4	Demarcate a 5 m zone around the entire group of rock on which the engravings occur (requires a permit in terms of Section 35 of the NHRA from SAHRA)	Glubay Coal in onsite consultation with rock art specialist	Grass must be kept short and annual weeds trimmed or removed to prevent accidental damage to the rock engravings by fire. Grass growing amongst the rocks must also be removed

5	<p>Demarcate a no go zone in a roughly 200 m radius around the rock art site:</p> <p>No heavy vehicles (over 1 ton?)</p> <p>No haul roads</p> <p>No infrastructure</p> <p>No stockpiles</p>	<p>Glubay Coal in onsite consultation with rock art specialist</p>	<p>Cut down on vibrations that might impact on the rocks and dust raised by too many passing vehicles.</p>
6	<p>Apply for permits in terms of Section 35 of the NHRA to plant poles at a 5 m radius to the rock art site</p>	<p>Rock art specialist, Glubay Coal responsible for cost of permits</p>	<p>Compile and submit application to SAHRA for a permit to plant poles at a 5 m radius around the rock art site</p>
7	<p>Establish a ring of poles at the perimeter of the 5 m zone to prevent the entry of vehicles into the 5 m zone. <i>A permit from SAHRA is required before this can be done</i></p>	<p>Glubay in onsite consultation with rock art specialist</p>	<p>Rock art specialist must be on site during the planting of the poles</p> <p>The poles should be long enough to be visible to drivers but not so as to obstruct the view of the site from a distance or draw attention to the rock art site</p>
8	<p>Apply for permits in terms of Section 35 of the NHRA to place an information notice at the Redan rock art site</p>	<p>Glubay Coal</p>	<p>The notice should carry the Glubay Coal logo and state:</p> <p>“Redan rock art site</p> <p>For permission to visit contact Glubay Coal: [provide 24 hour security number]</p> <p>No unauthorised visitors”</p>
9	<p>Establish site security</p>	<p>Glubay Coal</p>	<p>To protect the rock art site from damage the rock art site must be monitored as part of the</p>

			regular activities of security personnel. Frequency of inspection to be discussed and agreed upon with the rock art specialist (current suggestion is 1 x weekly)
10	Visitor's Book: keep a Visitor's Book for the Redan rock art site. Every visitor to the Redan rock art site must write their names and contact addresses, phone/mobile number and email address (if they have one)	Glubay Coal	Keep a record of all visitors to the Redan rock art site in the Visitor's Book. Glubay Coal must ensure that every visitor completes the Visitor's Book. Their name, contact number, email address (where applicable) and residential address must be supplied
11	Appoint a person/s who will be held responsible for managing the Redan rock art site	Glubay Coal	Ensure that the Redan rock art site is kept free of litter and Facilitate visits to the site (make appointments and any other arrangements necessary) Ensure every visitor to the rock art site provides their contact information in the Visitors Book Supervise the visitors to the rock art site

Table 2. Monitoring requirements for the ongoing management of the Redan rock art site

	Activity	Sensitivity	Responsible	Requirements
1	Evaluate CMP for Redan rock art site	High	Rock art specialist	Review CMP and make changes if necessary. 1 x 5 yearly, sooner if necessary
2	Submit monitoring report to SAHRA	Routine	Rock art specialist	Submit a monitoring report to SAHRA 1 x yearly
3	Monitor for graffiti and damage to the rocks during the Construction, Operational, and Decommissioning Phases	High	Rock art specialist	Check for damage and deterioration in the rock engravings. Note any subsidence and cracking in site vicinity. 1 x yearly
5	Maintain a 5 m zone of low vegetation around the rock art site	Routine	GluBay Coal	Trim grasses and remove annual weeds. Leave trees and shrubs.
5	Site security	Routine	GluBay Coal	Regular security patrols. Check engraving site for graffiti, signs of damage to the rock art, littering and unauthorised visitation 1 x weekly

6	Remove all litter from the site and within the buffer zone of the site	Routine	GluBay Coal	Weekly and more frequently when necessary
	Maintain information board	Routine	Glubay Coal	Check on condition of notice board and replace in exactly the same place if it is damaged or when it becomes illegible
7	Maintain regular contact with the stakeholders and ensure that the contact details of stakeholders are kept up to date.	High	Glubay Coal	Routine, regular checking and updating of stakeholder details
8	Identify new stakeholders and them to the list of stakeholders. Contact details must be provided.	High	Glubay Coal	Monitor developments in the public and private sectors and identify any additional stakeholders

References

Information about fences and security supplied by Glubay Coal technical team in email to Hanjo Fourie (M2 Environmental) and forwarded to the rock art specialist Jeremy Hollmann on 28 November 2023

CHAN, J.C. 2017. Visualising the voices of Redan: an experimental application of Forensic anthropology and Narrative Identity to a disappearing landscape. Dissertation submitted in partial fulfilment of the requirements for the degree Master of Arts in Graphic Design, North West University.

FOURIE, W. 2022. HIA for Springfield Project. Springfield Mining Project situated between Vereeniging and Meyerton, in the Sedibeng District Municipality.

FOCK, G.J. 1969. Non-representational rock art in the Northern Cape. *Annals of the Cape Provincial Museums (Natural History)* 6, part 11: 103–136.

HOLLMANN, J.C. 2013. Exploring the Gestoptefontein-Driekuil Complex (GDC): an ancient women's ceremonial centre in North West Province, South Africa. *South African Archaeological Bulletin* 68(198): 146-159

HOLLMANN, J.C. 2017. *The cutting edge: Khoe-San rock markings at the Gestoptefontein-Driekuil engraving complex, North West Province, South Africa*. Archaeopress: Oxford. ISBN 9781784917036

HOLLMANN J.C. 2020. Archaeological Impact Assessment report on the Redan engraving site: Springfield Coal Mining Project situated between Vereeniging and Meyerton, in the Sedibeng District Municipality, Gauteng Province. Prepared for PGS Heritage, 906 Bergarend Street Waverley, Pretoria 0186.

MORRIS, D. 1988. Engraved in place and time: a review of variability in the rock art of the Northern Cape and Karoo. *South African Archaeological Bulletin* 43: 109–121.

MORRIS, D. 2002. Driekopseiland and 'the rain's magic power': history and landscape in a new interpretation of a Northern Cape rock engraving site. Unpublished MA dissertation. Cape Town: University of the Western Cape.

MORRIS, D. 2010a. Snake and veil: the rock engravings of Driekopseiland, Northern Cape, South Africa. In: Blundell, G, C. Chippindale & B.W. Smith (eds.), *Seeing and knowing: Understanding rock art with and without ethnography*, pp. 37–53. Johannesburg. Wits University Press.

MORRIS, D. 2010b. *Driekops Eiland: an interpretive quest*. Bloemfontein. MacGregor Museum, Kimberley & School of design, Technology and Visual Art, Central University of Technology, Free State.

PRINS, M. 2005. The Primordial Circle - The Prehistoric Rock Engravings Of Redan, Vereeniging. Thesis submitted for the degree Philosophiae Doctor in the subject group History, School of Basic Sciences, Vaal Triangle Faculty, North-West University.

PRINS, M. 2007. From apathy to oblivion? The shameful history of heritage resource management in the Vaal Triangle. *The Journal for Transdisciplinary Research in Southern Africa* 3(1): 39-52.

THERON, G. 2018 Management Plan HIA report for the Comet Extension 17 (Comet Village) Township establishment compiled for the Gauteng Provincial Heritage Resources Agency (PHRAG).