

ROCK ART SITE MANAGEMENT PLAN

THUDWA – LITTLE MUCK

**MAPUNGUBWE
NATIONAL PARK AND
WORLD HERITAGE SITE
2009-2014**



For
South African National Parks
In collaboration with the Getty Conservation Institute and the
Southern African Rock Art Project

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1. INTRODUCTION

The Mapungubwe Cultural Landscape was declared a National Heritage Site in July 2002 and was listed as a World Heritage Site in June 2003. The cultural landscape represents an area with exceptional cultural and natural values. The Mapungubwe World Heritage Site was originally known as the Vhembe-Dongola National Park. Geographically the Mapungubwe Cultural Landscape (MCL) is situated at the confluence of the Limpopo and Shashe Rivers. The Limpopo River forms the northern border of South Africa, while the Shashe River separates Botswana and Zimbabwe to the north-west and north-east respectively. The World Heritage site is centrally placed in the proposed Limpopo-Shashe Trans-Frontier Conservation Area (TFCA) shared by Botswana, Zimbabwe and South Africa. The MCL was the centre of the first powerful indigenous kingdom in Southern Africa and also has outstanding botanical, ecological, geological and geomorphological merit, with a range of vegetation types associated with the outcrop of cave sandstone, baobab trees, Karoo fossils, and ancient rocks nearly 3 billion years old. The park is based on the rich biodiversity of the area, its great scenic beauty and the diverse cultural heritage that include archaeological sites such as the Mapungubwe Kingdom and numerous rock art sites attributed to hunter-gatherers.

Later Stone Age hunter-gatherers, ancestors of the San people, occupied the landscape from at least 10,000 years ago until about 1000 AD and interacted with both Khoekhoe herders and Iron-Age farmers. It is believed that this interaction had some effect on the language and economy of the hunter-gatherers, but very little effect on the hunting and gathering lifestyle they practised. At about 900 AD Zhizo Iron Age farmers moved into the area. Interaction between the inhabitants of the area at that time is recorded in archaeological deposits and has been documented through excavation reports. Compared to the many studies that were done on the Iron Age farmer groups, very little has been done on the timeline and sequence of events in the history of the Late Stone Age communities. The Later Stone Age hunter-gatherers inhabiting this landscape left evidence of their existence in the form of rock art. Numerous rock art sites are found within the boundaries of the Mapungubwe National Park & World Heritage Site. The Thudwa rock art site is located on the core area of the park on the farm Little Muck. It was occupied by hunter-gatherers in the first millennium AD, and thereafter occasionally by agriculturists.

This management plan was compiled for the Thudwa rock art site as part of the rock art site management plan workshop held at the Mapungubwe National Park & World Heritage Site from 18 August to 4 September 2008. The workshop was organized by Dr Janette Deacon with the assistance of Pascall Taruvinga from the National Museums and Monuments of Zimbabwe, and David Myers and Dr Neville Agnew from the Getty Conservation Institute (GCI) in Los Angeles, USA. The GCI Southern African Rock Art Project has arranged four rock art training courses and workshops at Mapungubwe since 2005. They have been attended by staff members of SANParks and provincial parks, and by staff from other World Heritage rock art sites in Tanzania, Zambia, Zimbabwe, Mozambique, Botswana and Namibia. In 2008, the objective was to up-date the rock art management plans for the Mapungubwe National Park.

The management (SANParks) of the Mapungubwe Cultural Landscape is investigating the potential of opening rock art sites to park visitors. This management plan recognizes all policies and principles set out in the SANParks Integrated Management Plan and the Park Management Plan for the Mapungubwe National Park & World Heritage Site. This plan was prepared by Paballo Mohafa, Gcinumzi Ndava and Robert Sichone. It is based on an earlier plan developed by Rianna Doëses (Namibia), Bianca Engelbrecht (SANParks), Samuel Dagada (SANParks), Romeo Adams (SANParks) and Rika du Plessos (CapeNature), all participants in a GCI Workshop on rock art site management plans in 2005.

2. SITE DESCRIPTION

2.1 Site information

Farm name and number	Little Muck, LM/2
Co-ordinates for Thudwa rock shelter	22.14.716 S; 029.15.579 E
Altitude	523m.a.s.l.
Owner	Friends of Peace Parks, with contractual agreement with SANParks
Contact person	Park Manager: Mapungubwe National Park, SANParks, Tel/fax. (015) 534 2072
Archaeological permit holder	Dr. S.L Hall, permit no. 80/97/07/007/51 (expired) 01/08/2000, for excavation
Designated repository	Rock Art Research Institute, University of the Witwatersrand
Public access and visitation	Guided visits by appointment only
SANParks zonation	Cultural Landscape zone
Grading status	Mapungubwe Cultural Landscape declared a National Heritage Site in July 2002 and a World Heritage Site in June 2003

2.1.1. Locality and description

The site is located within the sandstone belt on the southern bank of the Limpopo River, on the farm Little Muck, within the Mapungubwe National Park. The site lies 25km west of the main access gate to the park (see Appendix 1 for a map of site location). Information regarding rock art at Thudwa is available from the Rock Art Research Institute at the University of the Witwatersrand. Digital and printed copies of all records have been lodged with the Mapungubwe National Park and World Heritage Site. The records were compiled by Palaeo-Art Services, a private organization headed by Ed Eastwood and Cathelijne Cnops, until the sad death of Ed Eastwood in October 2008. Excavations at the site were done during 1999–2000 by Simon Hall of the Archaeology Department of the University of the Witwatersrand (Hall & Smith 2000).

The 147 paintings found at the site are fine-line paintings made by San hunter-gatherers in red and yellow ochre, and white pigments. These finely detailed images reflect the beliefs and cosmology of the San people who occupied the area during the last five thousand years. Rock engravings include slashmarks, cupules and indeterminate animals.

The archaeological excavations in the shelter deposits provide detailed information on the sequence of events during the transition from the Later Stone Age to the Iron Age between about 2000 and 1000 years ago. The occupation deposits at the shelter are about 1m thick. This research indicates that the first occupants of the site pre-date the introduction of pottery about 2000 years ago, and that activities at the site intensified as the hunter-gatherers established a good working relationship with their farmer neighbours. Deposits with the earliest Happy Rest/Bambata pottery contain a large number of stone scrapers. These stone tools were used to prepare hides, which were then traded with the farmers in the area. Trading between the hunter-gatherers and farmer intensified during the Leokwe–Zhizo period 1000–1100 AD. Fewer stone tools, worked bone, shell and ochre were found in the upper

layers of the excavation. These layers are associated with the K2 and Mapungubwe pottery, glass beads and iron artifacts that date to 1100 –1300 AD.

As the Iron Age Farmers moved into the area the hunter-gatherers retreated. The presence of the farmers in the area is indicated by 14 board games that are carved into the sandstone rocks in front of the shelter. This game is played by men in the Shona, Venda, Shangaan and Tsonga speaking communities. In the context of Little Muck and the rock art, farmers used shelters as ritual contexts, because they provided secluded places for transitions in life status.

The rock paintings cannot be directly dated, but the fact that there is no ochre present in the upper layers of the deposit is strong evidence that the paintings were done prior to 1050 AD as after that time the site was taken over by Iron Age farmers.

2.1.2. Physical Environment

The shelter is situated within a sandstone belt where the main vegetation type is mixed mopane veld. The paintings are found in a shelter with a flat floor and on average 1.5m above ground level.

2.1.3 Description of rock art and archaeological deposits

The rock art at Thudwa is located in a north facing shelter. The shelter is 15.5m wide, 7m high and 6.9m deep. Engravings as well as paintings are present at the site. Paintings occur over the full width of the shelter. The engravings consist of 9 bird tracks, 2 indeterminate animals and 33 slash marks. Late Iron Age farmers engraved 14 board games about 30m outside the Thudwa shelter.

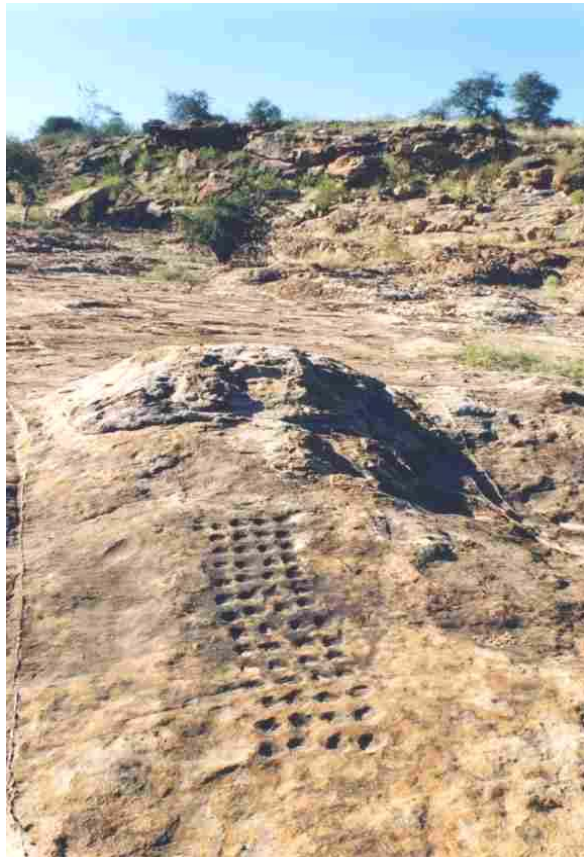


Figure 1: Stone tools on the surface of archaeological deposits at Thudwa rock shelter.



Figure 2: A painting of a loincloth.

Figure 3: Board game
outside Thudwa shelter



The paintings at the site can be grouped as follows:

- Humans
 - Indeterminate 31
 - Females 6
 - Males 16
- Animals
 - Indeterminate 5
- Antelope
 - Indeterminate 18
 - Eland 1
 - Kudu 2
 - Impala 2
 - Bushbuck 1
 - Wildebeest 1
- Other Animals
 - Giraffe 5
 - Rhino 1
 - Felines 2
 - Elephant 22
- Y-shape loincloths 11
- Animal skin aprons 2
- Comb shape 1
- Cross 1
- Thin lines 12
- Finger lines 5
- Finger dots 2

3. EXISTING SITE MANAGEMENT

The farm Little Muck, on which the Thudwa site is situated, is owned by the Friends of Peace Parks. It is managed by SANParks according to a contractual agreement with the De Beers Consolidated Mines Ltd and forms part of the MNP (Mapungubwe National Park). The property is managed, monitored and funded within the framework applied to all national parks. In terms of the South African World Heritage Convention Act, SANParks is the overall management authority appointed by the Department of Environment Affairs and Tourism for the Mapungubwe Cultural Landscape. The Mapungubwe Cultural Landscape was declared a National Heritage Site in 2002 by the South African Heritage Resources Agency (SAHRA). In terms of the National Heritage Resources Act (No.25 of 1999), SAHRA is responsible for the protection of the site in the following manner:

- i) Conservation management plan to be submitted by the managing authority.
- ii) Permits should be obtained from SAHRA for any interventions at the site
- iii) Impact assessments must be commissioned before any activities likely to impact on the heritage resources are undertaken.
- iv) Contents of on-site interpretive material or programs for the public must be submitted to SAHRA for approval at least 60 days before they are to be printed.

Little Muck, as part of the former Vhembe-Dongola National Park, is now managed contractually by the Joint Management Committee (comprising SANParks, the Limpopo Provincial Government, and landowners with contractual agreements). The Park Manager, as the mandated official, is responsible for the following tasks:

- Regular monitoring of the site
- Reporting threats or damage to heritage resources
- Preparedness natural disasters
- Implementing legal requirements for environmental impact assessments in advance of development.
- Ensuring that heritage impact assessments are done prior to any developments that may affect heritage resources.

4. STAKEHOLDER CONSULTATION

In compiling the management plan various steps were followed to produce the final product. The first step was to gather information regarding the rock art at Thudwa – Little Muck. This was done during site visits and literature studies. A draft statement of significance was compiled in 2005 for the Thudwa rock art site using this information.

Various interested and affected parties were invited to a stakeholders meeting held on the 31st of August 2005 at Dongola Ranch. Eleven stakeholders attended the meeting and these included lodge owners, tourism forum representatives, archaeologists from the University of Venda, Provincial Government representatives from Tourism and Parks and private tour operators. The aim of the meeting was to articulate the proposal to open rock art sites to the general public and visitors, and at the same time seek their opinions on the significance and conservation of rock art in Mapungubwe National Park. Stakeholders had the opportunity to raise issues and concerns related to the opening of rock art sites (see Appendices 2, 3, 4 and 5 for the program of the meeting as well as the questionnaire, outcomes and attendance register). The inputs of the stakeholders were taken into consideration and key issues regarding the opening of the Thudwa rock art site were listed. Goals, objectives and strategies were subsequently determined to address the key issues.

It will be the responsibility of the Mapungubwe National Park management team to implement and review the proposed plan according to the monitoring criteria and frequency stipulated in this management plan. It is further recommended that detailed documentation of the management actions be kept to assist in the overall review and interpretation of the process.

On 22 August 2008 the group met with one of the landowners of the Tuli Block at the Mothabaneng Village in Botswana and on 23 August 2008 a meeting was held with the landowner/s of the Sentinel and Nottingham estates in Zimbabwe. The aim of the meetings was to get the landowner's views and opinions on the significance and conservation of rock art in Mapungubwe Cultural Landscape and the possibilities of their properties' incorporation into the proposed Trans Frontier Conservation Area (TFCA). The stakeholders had the opportunity to raise issues and concerns related to the proposed TFCA. The inputs of the stakeholders in 2005 and 2008 were duly taken into consideration in designing the goals, objectives and strategies to address the key issues in this management.

It will be the responsibility of the MCL management team to implement and review the proposed plan according to the monitoring criteria and frequency stipulated in this management plan. It is further recommended that detailed documentation of the management actions be kept to assist in the overall review and interpretation of the process.

5. VALUES AND STATEMENT OF SIGNIFICANCE

5.1 Values Assessment

Value Category (* for highest priority)	Value Level (High/Medium / Low)	Justification
Spiritual/Social	High	The rock art is connected to the ceremonies of the past as illustrated by the hunter-gatherer clothing (apron and the loincloth) associated with initiation, supernatural potency and rainmaking ceremonies. However, no local communities today hold the site to be sacred or use it to hold traditional practices.
Scientific/Research	High	The sites bears evidence of the first indigenous communities of the Limpopo-Shashe area; the stone age/San hunter-gatherers. It is characterised by archaeological and rock art heritage relating to these past communities. Excavations were carried out at the site and variable archaeological objects discovered. These objects and interpretation of the rock art provide information about the cosmological beliefs of these communities and how they interacted through time and space.
Historic	Medium	The site illustrates contact between hunter-gatherers and early farming communities as evidenced by the chronology of the site established through excavations. Current publications on the site thus provide a history of occupation of the site in the context of the confluence area. However more historical research is required to

Value Category (* for highest priority)	Value Level (High/ Medium / Low)	Justification
		establish the full chronology of occupation of the Limpopo area.
Aesthetic/ Artistic	Medium	Though the site has examples of rare and finely detailed paintings, such as the images of giraffes, aesthetically it is not comparable to sites such as Drakensberg (South Africa), Matobos (Zimbabwe), and Brandberg (Namibia).
Educational	Low	Though the site has potential for contributing to educational programmes and general awareness campaigns on the significance of rock art, it is not currently open to public, and neither is it included in the MCL heritage education programmes.
Economic	Low	The site is not included on the heritage tours of the MCL. Furthermore no local community is deriving any economical benefit from the site. The potential is not guaranteed for local communities as they are still contesting for ownership of the land.

5.2 Statement of significance

The Thudwa Rock Art Site, situated in the Little Muck Nature Reserve in the Mapungubwe National Park and World Heritage Site, bears evidence of the first indigenous communities of the Limpopo-Shashe area; the Stone Age/San hunter-gatherers. The archaeological and rock art heritage indicate that the Late Stone Age/ San hunter-gatherers occupied the site from about 350 – 1000 AD. Pictographs (paintings) include images of human figures, animals, Y-shaped figures, and were executed in fine-line images using a combination of techniques such as monochrome, bichrome and polychrome using red and yellow ochre, black manganese and white kaolin clay pigments. Petroglyphs (engravings) at the site include bird tracks, slashmarks, and game boards.

The Y-shape depictions (loincloths and aprons) represent items of San-hunter-gatherer clothing. These have strong symbolic links with hunting, supernatural power and notions of gender. Loincloths and aprons images recur in three contexts; transition rites, hunting and the medicine dance. Women's aprons have sexual connotations and the potency associated with them is believed to have a profound and negative effect on men's hunting prowess. In addition, Aprons are index of status change in initiation stages. The supernatural energies of the aprons and associated loincloths influenced dances. Interpretation of loincloths and aprons as metaphors of "gendered" potencies and their juxtaposition might refer to the marriage ceremony. Loincloths and aprons are also divine symbols of supernatural potency that link mythological beings with hunter-gatherer rites.

The three polychrome giraffes at Thudwa are considered to be a source of supernatural power for the San hunter-gatherers. These 3 polychrome giraffes are a rare occurrence and contribute to the significance of the site. The giraffes are depicted in elaborate polychromes which have red dorsal strips or lines extending from the base of the head to the base of the tail. This line refers to the supernatural potency of the animals. The Giraffe is considered a potent animal and plays an important in the rituals and folklore of many San groups. The site name itself "Thudwa" is a Venda word meaning giraffe which further signifies how this animal is revered even by contemporary communities.

Other images which are associated with supernatural powers include the kudu which plays an important role in the initiation rituals of both males and females. The finger paintings are connected to initiation rituals and rainmaking ceremonies, and are a valuable testimony to the beliefs of the hunter-gatherer artists who once occupied the site. Animals such as elephants and rhinoceros were considered to be rainmaking animals. Engravings include board games which were done by the Iron Age Farmers, signifying contact between them and hunter-gatherers at the site.

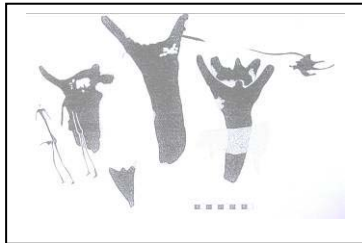


Figure 4: Painting of aprons and loincloths traced by E. Eastwood

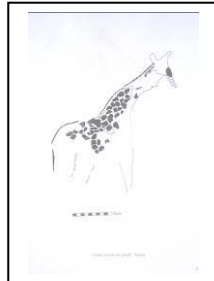


Figure 5: Polychrome giraffe traced by E. Eastwood

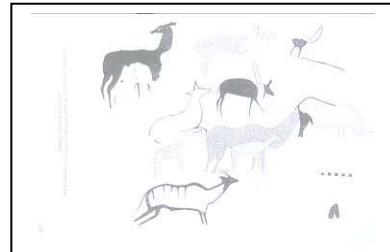


Figure 6: Paintings of a variety of animals traced by E. Eastwood

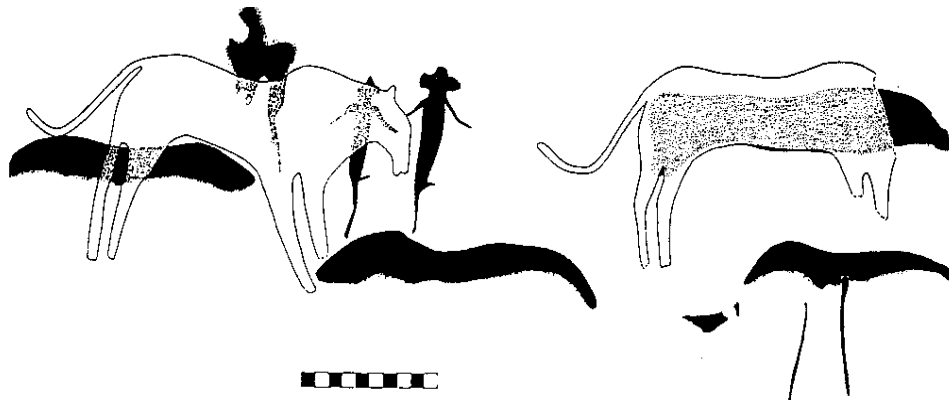


Figure 7: Outlined felines superimposed on humans and the dorsal lines of elephants.



Figure 8: Tracing of men and an Impala ewe with young (E. Eastwood)



Figure 9: Tracing of two polychrome giraffes and a woman (E. Eastwood)

6. SUMMARY OF KEY ISSUES, SENSITIVITIES AND THREATS

The following key management issues were identified during the planning process

1. **Lack of monitoring on the condition of the site:** there is no regular monitoring of the site, an activity that would provide feedback on the status of conservation and the appropriate interventions.
2. **Unresolved land claims:** Though a contractual agreement exists between SANParks and Peace Parks Foundation, there is a landclaim by the indigenous community for the same property. This is an issue now before the Land Claims Commission.
3. **Protection of archaeological deposits:** The site has archaeological deposits (Stone Age artifacts) in the form of surface scatters and material buried under the floor of the cave. These are subjected to human impact during visits as well as impact by animals. The game boards are also under threat from visitors and animals given their location on the path leading to the site. These issues if not addressed, will ultimately lead to the destruction of this archaeological record, potentially important to the interpretation of the MCL.
4. **Threats on rock art:** The rock art panels at this site are under threat from the following factors: dust accumulation as a result of visitorship and animals, animal and bird droppings, water related weathering, cracking and localized flaking, mineral deposits and rock detachments.
5. **Research priorities and needs:** Though research has already been undertaken at the site (rock art interpretation and Stone Age excavations) there is a need to assess further potential for research from other perspectives. This is because research is always ongoing, and helps in building a body of knowledge for the MCL.
6. **Lack of awareness on the significance of the site:** There is a general lack of awareness on the significance of this site among the local communities and schools within and around the MCL boundaries. Cultural heritage resources remain integral to the educational syllabuses in these schools; therefore the lack of site specific educational materials for the school children should be addressed. If local communities are to play a significant role in the conservation of the site they need to be conscientised through appropriate and effective means.
7. **Lack of site specific visitor management policy:** Whilst a contractual agreement exists between SANParks and Peace Parks Foundation on the general management of the site, the contract does not address the issue of visitor behaviour at the site. The need for a visitor management policy arises from the fact that the site is found along an eco-route in the park, and visitors may have uncontrolled access whilst on the eco-route. This may lead to the site being damaged.
8. **Development of a site-specific disaster management plan:** The plan will assist in dealing with disasters such as fire and flooding that can affect the site. It will also need to address the threats facing the site.

6.1 Site sensitivities and threats

The Thudwa site is exposed to various threats which include the following:

- Water, animals, dust, artifact damage, graffiti, fire, walking over the board games, and exposure to sunlight
- During the rainy season the natural contours of the rock divert water to flow over the panels, which results in salt deposits on the surface of the rock causing damage to the paintings.
- Animals like geckos and rock hyraxes inhabiting the shelter urinate and defecate on the rock surface and on the paintings.

- Rock paintings and engravings are vulnerable to dust that is generated by people visiting the site. Dust adheres to moist surface and is permanently fixed by salts precipitating on the rock face.
- Visitors moving around in the shelter damage artefacts on the shelter floor. Artefacts could also be lost due to visitors taking them as souvenirs.
- Rock art is vulnerable to touching as oil and moisture from hands adhere to the surface and cannot be removed.
- Engraved board games on horizontal rock surfaces are vulnerable to people walking over them.
- The ambience of the site can easily be disturbed by over-use and littering.

6.2 Condition of Rock Art

An assessment of the physical condition of the Thudwa rock art site at Little Muck was conducted. A condition report form was completed along with a site information form. The entire panel containing rock art was divided into four manageable panels, starting from left to right (when facing the shelter), and an assessment form for each of these panels was completed. The following information was extracted from these forms.

Both natural and human-caused deterioration is taking place at the site. The natural causes outweigh the human impacts. The natural factors can be grouped as follows:

- *Damage to the rock surface and rock art is caused by salts that build up as a result of water running over the surface, leaving insoluble salts. This is visible in all 4 of the panels. Direct water wash over art also causes deterioration.*
- *Flaking of the paint pigments as well as rock spalling contributes to the loss of painted and engraved images. This also occurs in all of the panels.*
- *Various signs of animals running over the rock surface are visible. Gecko faeces are visible on the paintings and bare rock indicating gecko activity on the rock. The presence of rock hyrax faeces and urine indicate their presence and it is possible they run over engraved surfaces. This animal activity can be observed in all 4 panels.*
- *Dust deposits can be found on the lower part of the entire panel. It is only in panel 4 that the dust has accumulated over engravings.*
- *Animal deposits of mud wasps and droppings from rock hyrax, birds, geckos and bats can be found on and near to the rock art and can be observed in all 4 panels.*

The human factors include the following:

- *Graffiti in the form of scratch marks were observed on panels 1 & 4. Panel 1 has scratch marks over a painted antelope. The scratch marks on panel 4 were made on a dust-covered area next to engraved medicinal grinding and mixing hollows.*
- *Rehabilitation materials from the excavations done by Simon Hall are scattered and appear as litter lying around the site.*
- *Paint has been removed from images on panels 1 and 2 by scraping, causing damage to some paintings.*

The combination of natural and human factors is resulting in accelerated deterioration of some of the rock paintings. It is recommended that the archaeological reports related to previous excavations may be used as comparative data in ascertaining the condition of the rock art panels, then and now.

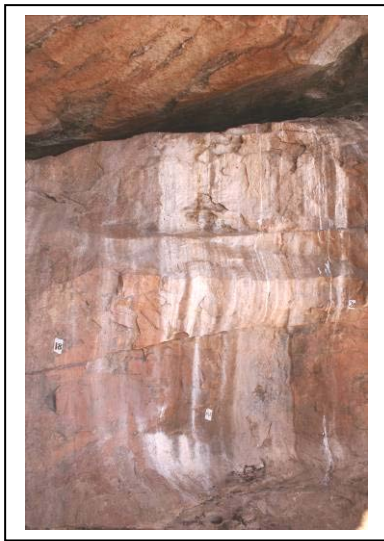


Figure 10: Bird droppings on panels without rock art.



Figure 11: Mineral deposits and other natural processes damage rock art.

7. MANAGEMENT GOALS AND OBJECTIVES

For each management issue, a goal was developed with several objectives. Each objective has several strategies to ensure we achieve the set objectives. These are detailed in the tables in section 10 of this plan.

7.1 Goal 1: To conserve and manage Thudwa rock art and archaeological heritage

Objectives:

- 7.1.1 Conserve the archaeological deposits of the Thudwa Rock Art Site
- 7.1.2 Carry-out periodic condition assessments of the site
- 7.1.3 Assess the need for the development of a disaster management plan for the site
- 7.1.4 Develop awareness programs on the values of the site for local communities

7.2 Goal 2: To promote research of the cultural heritage of Thudwa Rock Art Site.

- 7.2.1 Identify the research potential, needs and priorities for the Thudwa site.

7.3 Goal 3: To develop and implement community awareness and educational programs

- 7.3.1 Integrate the site into the environmental education syllabus for schools.

7.4 Goal 4: To develop and manage tourism at Thudwa site

- 7.4.1 Produce a site-specific visitor management policy for the site.

8. OPERATIONAL POLICIES

The policies relating to the site are largely drawn from the SANParks relating to the management of cultural heritage. Below is the summary of the policies specific to the site.

8.1 *Conservation policy*

- 8.1.1 Permits for any interventions must be obtained from SAHRA
- 8.1.2 Adhere to established principles of conservation
- 8.1.3 All interventions may be done only by qualified conservators

8.2 *Visitor management policy*

- 8.2.1 Permission to visit the sites may only be granted by the SANParks cultural heritage manager.
- 8.2.2 Only special interest groups will be allowed to visit the site on prior arrangement.
- 8.2.3 All site visits must be guided where the policy makes it mandatory.
- 8.2.4 A decision on the maximum number of visitors per time-frame should be established.

8.3 *Research policy*

- 8.3.1 All research projects must be approved by SANParks
- 8.3.2 All interventions must be done under a permit from SAHRA
- 8.3.3 All research on the site must be conducted by qualified persons.

9. STRATEGIES AND MONITORING MEASURES

THUDWA ROCK ART SITE (LITTLE MUCK) - MANAGEMENT GOALS, OBJECTIVES, AND STRATEGIE

9.1 To conserve and manage Thudwa rock art and archaeological heritage: Key issues: lack of <i>periodic monitoring on the condition of the site; protection of in situ archaeological deposits, dealing with threats on rock art ;potential for developing a disaster management plan; visitor & animal impacts; bird droppings; natural impact on the rock surface & paintings</i>							
	OBJECTIVES	THREATS OR RISKS	ACTION / MANAGEMENT MEASURES	TIME FRAME	RESPONSIBILITY	MONITORING CRITERIA	MONITORING FREQUENCY
9.1.1	Conserve the archaeological deposits of Thudwa Rock Art Site	Loss and damage of archaeological deposits.	<ul style="list-style-type: none"> Identify the affected areas on site. Identify interventions to conserve archaeological deposits, such as geotextile covered with stone slabs. Implement interventions where necessary. Monitor & document the impact of the interventions. 	Ongoing	SANParks, SAHRA, local communities and Peace Parks Foundation.	<ul style="list-style-type: none"> Check that the list is prepared. Check if interventions are recorded and photographs are taken. Ensure that the visitor numbers do not exceed the carrying capacity of the site. Check that floor is covered during conservation work. 	Quarterly
9.1.2	Carry-out periodic condition assessment of the site	Cannot monitor rock art without knowledge of the previous condition of the site.	<ul style="list-style-type: none"> Prioritise the site for condition reporting. Compile a condition assessment strategy. Implementation of the condition assessment strategy. Take appropriate action when necessary. Continue monitoring the impact of 	April 2009 Ongoing	SANParks	<ul style="list-style-type: none"> Check that priority list is being implemented Check if interventions are recorded and photographs 	Annually

	OBJECTIVES	THREATS OR RISKS	ACTION / MANAGEMENT MEASURES	TIME FRAME	RESPONSIBILITY	MONITORING CRITERIA	MONITORING FREQUENCY
			<ul style="list-style-type: none"> action taken ▪ Undertake scheduled condition assessments. 			are taken.	
9.1.3	Assess the need for the development of a disaster management plan for the site	Inadequate planning can add to damage caused by disasters.	<ul style="list-style-type: none"> ▪ Identify high risk areas such as rock paintings in close proximity of thick vegetation and horizontal engraved surfaces vulnerable to flooding. ▪ Creation of firebreaks ▪ Use archaeological monitors on wildfires in sensitive areas to avoid 	2 months before the decision is taken about the opening of the rock art site. Regularly	Specialists, SAHRA, SANParks	Check that plans have been drawn up and are known to all parties.	Annually or as required on permit
9.1.4	Implement awareness programs on the values of the site for local communities.	A lack of local knowledge could lead to gaps in information and involvement	<ul style="list-style-type: none"> ▪ Organize workshops to disseminate information on the site. ▪ If need arises, carry out fact finding missions among the local communities to gather more relevant information about the site ▪ Provide the local communities with volunteer opportunities to learn and participate in rock art site conservation. 	3 months before a decision is reached about the opening of the site.	SANParks Local communities	<ul style="list-style-type: none"> • Revisit the need for on-going programs • Ensure that printed materials are distributed during workshops. • Ensure feedback is given to local communities on fact finding missions. 	Annually

9.2 To promote research on the cultural heritage of Thudwa Rock Art Site: Key issues: assess potential for further research priorities and needs

	OBJECTIVES	THREATS OR RISKS	ACTION / MANAGEMENT MEASURES	TIME FRAME	RESPONSIBILITY	MONITORING CRITERIA	MONITORING FREQUENCY
9.2.1	Identify Thudwa site research potential, needs and priorities	Information from rock art, and archaeological deposits may require updating as research is an ongoing process	<ul style="list-style-type: none"> Investigate the possibility of further research potential of the rock art site in consultation with the scientific community. Consult local residents as partners to identify their oral research needs. Draft a plan for identified research potentials.. Implement the research plan if need arises <ul style="list-style-type: none"> Make sure the research results are distributed. to all interested parties Develop opportunities for local communities to participate in research. 	2009-2014	SANParks, SAHRA,	<ul style="list-style-type: none"> Ensure that the research priorities and plans are available. All researchers must submit interim field reports for the research projects. All publications arising from this research must be submitted to SANParks. 	<ul style="list-style-type: none"> According to timeframe established to complete research plan According to research schedule According to timeframe established to complete and distribute publications

9.3. To develop and implement community awareness and educational programs: Key issues: lack of awareness & engagement with local communities on the significance of the site, lack of site specific educational resource materials

	OBJECTIVES	THREATS OR RISKS	ACTION / MANAGEMENT MEASURES	TIME FRAME	RESPONSIBILITY	MONITORING CRITERIA	MONITORING FREQUENCY
9.3.1	Integrate the site into the environmental education syllabus for schools.	Lack of comprehensive knowledge in context to the cultural landscape leads to incomplete information	<ul style="list-style-type: none"> Identify curriculum learning areas that link to the rock art. Compile a 1-day program for school groups. Develop resource materials for the site in context of the broader cultural landscape. Conduct schools outreach programs Conduct Teacher training workshops. 	Ongoing	SANParks, Dept. of Education	<ul style="list-style-type: none"> Review programs Educational Material made available to participating schools and children. Reports on outreach programmes and workshops. 	Quarterly

9.4 To develop and manage tourism at Thudwa site: Key issues: Lack of site specific visitor management policy; uncontrolled access of visitors that are driving on the eco-route

	OBJECTIVES	THREATS OR RISKS	ACTION / MANAGEMENT MEASURES	TIME FRAME	RESPONSIBILITY	MONITORING CRITERIA	MONITORING FREQUENCY
9.4.1	Produce a site specific visitor management policy for Thudwa	Lack of expertise could defer the drafting of the policy.	<ul style="list-style-type: none"> Meet to discuss development of a site specific visitor management policy. Design a visitor management policy Formalize the policy document between SANParks and PEACE PARKS Foundation. Implement and monitor the policy at the site. Design and print a brochure outlining the site policy and information about the rock art and archaeology. 	Necessary	SANParks; SAHRA, Limpopo Tourism Board	<ul style="list-style-type: none"> Check all relevant stakeholders are involved and informed. Site Specific Visitor Management Policy document. Adherence to SAHRA minimum standards and regulations for rock art. Adherence to minimum standards and regulations of the Limpopo Tourism Board 	According to activity timeframes

10. CONCLUSION

It is evident that the polychrome giraffe and Y-shaped aprons and loincloths at Thudwa – Little Muck shelter are of great significance and that the interaction between the Late Stone Age and Iron Age at this site contribute to the value of the Mapungubwe Cultural Landscape. This cultural significance emphasizes the need to conserve the location as part of the landscape.

It is recommended that some management measures are put in place before the Thudwa site is opened to the general public.

Access to the site and all tours will be only available with trained guides to avoid further damage on *in situ* archaeological deposits, such as board games. The protection of the site floor is also crucial and it is further recommended that the floor is rehabilitated with geotextile and covered with a hard surface of stone.

Due to the threats that are currently facing the paintings, rock surfaces, and archaeological deposits, the site management must ensure that all reports on the site are obtained and condition reporting of the site should be done on a regular basis.

The importance of Thudwa in the Mapungubwe Cultural Landscape must be emphasized and advocated to the general public in the form of guided visits and a pamphlet.

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APPENDICES

Appendix 1 - Map of Mapungubwe National Park

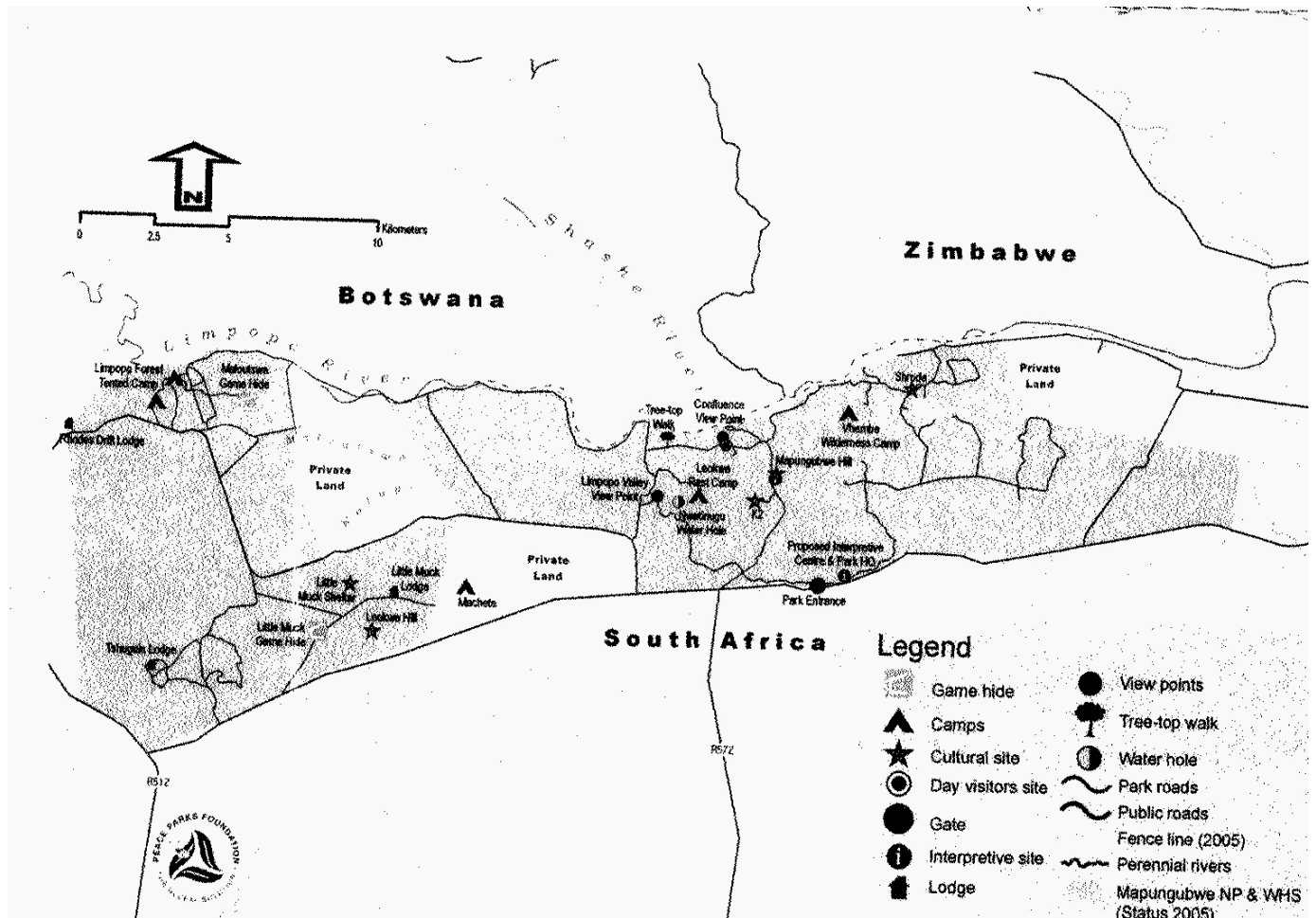
Appendix 2 - Program of Stakeholders meeting (2005 Workshop)

Appendix 3 - Attendance registers of Stakeholders Meeting (2005 Workshop)

Appendix 4 - Site Recording Form

Appendix 6 - SANParks policies

APPENDIX 1: MAP OF MAPUNGUBWE



APPENDIX 2

PROGRAMME FOR STAKEHOLDERS’ MEETING

31 AUGUST 2005

10:00 – 10:30 Tea and coffee

10:30 Welcome, introductions and purpose of the meeting
Janette Deacon

10:45 Mapungubwe National Park rock art policy
Johan Verhoef

11:05 Questions

11:15 The Getty Conservation Institute project
Neville Agnew

11:35 Questions

11:45 Rock art for sustainable tourism in Southern Africa
Janette Deacon

12:15 Questions

12:30 Identification of issues associated with rock art
tourism at the Mapungubwe National Park

13:00 Lunch

14:00 Breakaway groups discuss issues

15:00 Plenary discussion of outcomes

15:30 Closure and tea

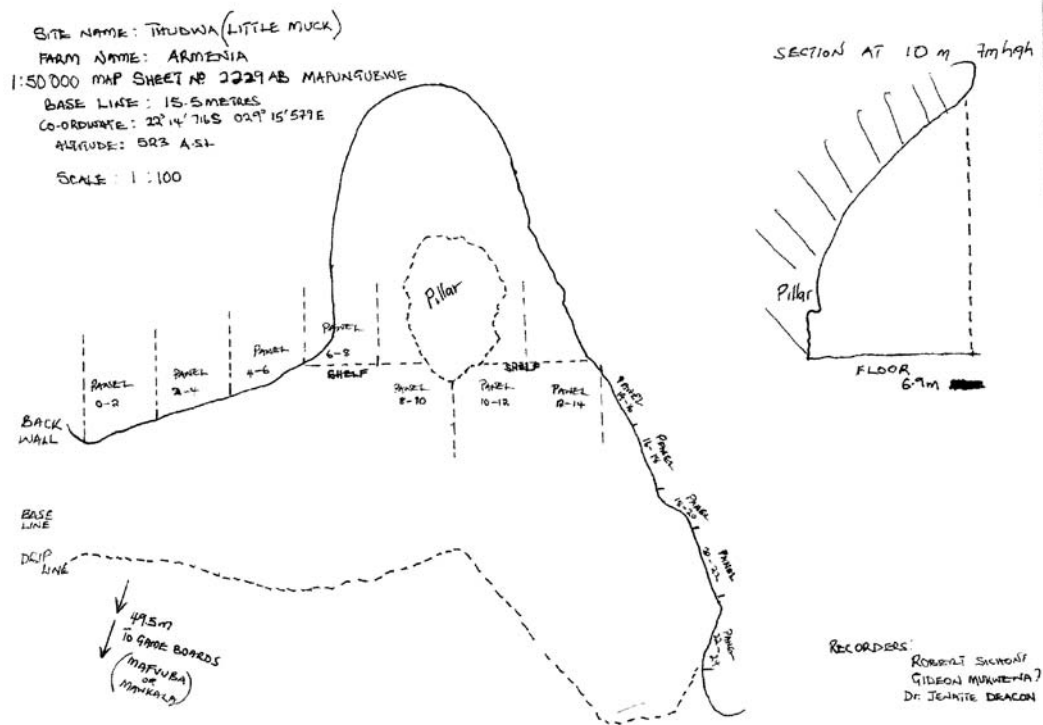
APPENDIX 3

ATTENDANCE REGISTER FOR STAKEHOLDERS MEETING
ON 31 AUGUST 2005

ATTENDANCE 31 August 2005. ^{WINDOOR RANCH}			
Name	Address	Tel#	Email
Q. Lombardi	Musina P.O. 1318	0155740975	
C. Leach	LPS Box 143 LTT.	0155161466	charles@leachp charles@leachpinner.co
Warwick Mostert	Venetia Nat. Reserve Po Box 192 Musina 0900	015 534 2986	warwick.mostert@deboers.gr
Priscilla + Melanie Eva	Eva Safaris - Po Box 1696 Musina 0900	083 280 5057	priscilla@mwweb.co.zi
Morris Mabada	Limpopo Tourism & Parks Po Box 331 Makhado	0155163415 083 629 2948	zoutpansberg@mwweb.co.zi
Prof. Edwin Hanisch	Venda University r/Bag + 5500 Thohoyandou	015 962 8545	chanisch@univen.ac.za
Dr. Elbe Coetsee	Mogalakwena Craft Art Development Foundation	015 575 1180	elbe21@africa
Isarella Coetsee	Mogalakwena River Lodge	015 575 1192 021 424 0133	mogalakwena@kwaZulu.co.za
Kirsten Stebbins	Box 86 ALLDAYS BANDUR	0825777617 0155751225	

APPENDIX 4

SKETCH PLAN OF THUDWA ROCK ART SITE



APPENDIX 5: ROCK ART SITE RECORDING FORM

MAPUNGUBWE ROCK ART SITE RECORDING FORM

1:50 000 Map Sheet No.	2229AB MAPUNGUBWE
GPS latitude and longitude	S 22° 14' 71.6" E Altitude 029.15 537 523 m ASL
Farm name + your site number	ARMENIA (LITTLE MUCK) Thudwa
Recorder's name	ROBERT SICHANE GREGOR MUKWENA J. DEACON
Date of visit	01-09-2008
Type of site (rock shelter, boulder)	SHELTER
Cave mouth faces north/south/west/east	NORTH
Approximate size of rock shelter floor	Left-right = 15.5 m Back wall to dripline = 6.9 m 8m
Number of 2 m panels along wall with paintings	6
Natural damage to paintings (water, lichen, wind, salts)	BIRD DROPPINGS, SALTS, WIND
Have the paintings or rock shelter walls been damaged by graffiti? Over what area?	NO
Rock Art Tradition	San paintings 10/ San engravings 1 Khoekhoe paintings 1? Slash marks 39 POLES 21
Approximate number of paintings	Red: 90 Black: White: mm Yellow: 3 Bichrome: 1 Polychrome: 3
Number of human figures. Probable category according to equipment or body shape	Male 22 Female 15 Indeterminate 15 Possible male Possible female
Activity	Men 1 GROUP in processions (22-24) Women in processions dancing Men and women together in groups 2 group in 2-4 + 4-6
Equipment	Bags Bows 2 Arrows Quivers Digging sticks Sticks Flywhisks Loin cloths 5 Aprons 1
Number of animals	Indeterminate Small antelope 2 MED antelope 7 Elephant 20 Kudu 7 Feline 2 Zebra Rhino Giraffe 5 Impala Ostrich Bird Sable/Roan Antbear Snake Baboon Wildebeest Other:
Number of hand prints	Plain Patterned
Number of non-representational patterns	Dots Lines 3 Grids U-shapes Zigzags Nets 7 x 1 Circles Paint patches Smears
Describe unusual images	
Is cave floor rocky, sandy or ashy, or covered with dung? What artefacts did you see? Stone tools / pottery?	Sandy ✓ Ashy ✓ Rocky Dung Stone tools ✓ Ostrich eggshell Pottery ✓
Location of site (on top of mountain, in stream bed, half way up cliff, etc)	Mtn top Kloof Valley floor ✓ In cliff face On hill slope
Records made (photos/slides/digital photos/tracings)	DIGITAL PHOTOS & PLAN

APPENDIX 6

SANParks Policies ***Policies relating to the cultural environment***

Background to policy formulation

The policy framework provided for the management of Thudwa Rock Art Site is largely borrowed from the generic policies of the Mapungubwe Cultural Landscape. This includes the general principles of conservation for the MCL World Heritage Site, which are also applicable to the site. Some of the site specific policies have been adapted from the same.

Definition of cultural resources

“Cultural resource” is a broad generic term meaning 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 fauna and flora of palaeontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specified groups. Cultural resources also include traditional systems of cultural practice, belief or social interaction. These can be, but need not necessarily, be identified with demarcated locations.

Cultural resources embody a range of values held by a community and individuals. The importance of the resources to society lies inter alia in providing a sense of historical continuity, group and national identity. Cultural resources enrich people’s existence, contribute to the quality of the environment, and have educational and recreational value and potential economic benefits for example, tourist attractions. These resources are non-renewable “containers” of information, or potential information about past and present human use and occupation of the environment, cultural activities and history.

The Mapungubwe National Park has a rich and diverse cultural heritage and one of the most important records of human activity in Southern Africa. Its history of occupation dates back many thousands of years. This heritage plays a vital role in promoting reconciliation and the development of a unifying national culture.

Cultural resource management involves more than the preservation and protection of the cultural heritage. It is recognised by SANParks as a process, which consists of a range of interventions and provides a framework for informed and value-based decision making. Cultural resource management is founded on principles and implemented in a way that integrates professional, technical and administrative activities. The operative word in cultural resource management is integrated management. It addresses the entire spectrum of environmental management functions and interventions that impact on cultural resources in the environment, or influence their continued existence and sustainable development. These include planning, policy development, monitoring, evaluation of significance and risk, survey and recording, control, assessment of development, impacts, scoping, mitigation of impacts, identifying alternative development options, project implementation and decommissioning, auditing, decision-making, facilitation and initiation of actions, communication, interpretation and education.

Cultural Resource Management endeavors to ensure the effective and efficient protection and sustainable development and utilisation of cultural resources for the benefit of all South Africans.

The Principles of Cultural Resource Management

Cultural Resource Management in the National Park is guided by the following principles:

- (i) Acknowledgement of the area's rich and diverse cultural heritage and a commitment to ensuring the safeguarding of this heritage in the area under the jurisdiction of the proclaimed National Park.
- (ii) In terms of the relevant legislation, SANParks accepts responsibility for ensuring that the effective protection, preservation and sustainable utilisation of cultural resources is integrated into the process of environmental management of the National Park.
- (iii) The cultural resource management policy establishes the trusteeship for both the natural and cultural heritage components, and accepts that cultural assets be taken into account in development projects and that the needs and values of especially local and neighbouring communities are honoured in this respect.

Management of cultural resources in the MCL

The **principles** for the management of the Thudwa Rock Art Site could be stated as follows:

- (i) The cultural resources of the Thudwa Rock Art Site are non-renewable and must be documented, protected and conserved.
- (ii) Cultural resources are an integral part of the total range of resources in the Mapungubwe Cultural Landscape, and both the cultural and natural resources have equal weight in the assessment of significance and management of sites in the Mapungubwe National Park.
- (iii) Management of, and decision-making about, cultural resources is best done by professional staff trained in archaeology, cultural resource management or allied fields.
- (iv) Oral histories and traditions, as well as heritage objects and artefacts that have been removed from the Thudwa Rock Art Site, are significant parts of the cultural resource.
- (v) Visitors to the Thudwa Rock Art Site are welcome if they are guided and informed and site protection measures are in place.
- (vi) The needs, values and intangible cultural heritage resources of local authorities and neighbouring communities are honoured and respected.

Policies deriving from the above principles are as follows:

- (i) There will be responsible management to retain the authenticity and integrity of cultural resources in the Mapungubwe Cultural Landscape.
- (ii) Effective protection, preservation and sustainable utilisation of the cultural resources will be integrated into the environmental management and biodiversity policies of the Mapungubwe National Park, and into the staffing and budgeting process.
- (iii) Every effort will be made to resolve disagreements that may arise from conflicts between the interests of cultural and natural resource management.
- (iv) Management, conservation, development and research of cultural resources is best done by Park staff, but may be out-sourced if the relevant expertise is not available within the National Park.
- (v) Decisions about the conservation and management of cultural resources will be based on information in an official database and liaison with appropriate stakeholders.
- (vi) In the short and medium term, archaeological excavations at significant sites will only be permitted for the purposes of rehabilitation or protection.
- (vii) All projects that involve invasive action on archaeological sites must have a permit from the South African Heritage Resources Agency (SAHRA).
- (viii) Any activities that may damage or change the authenticity or integrity of a cultural resource in the Thudwa Rock Art, including archaeological excavations, will be subject to peer review by a panel of appropriate stakeholders..
- (ix) The values of all South African cultures should be embraced and reflected in an inclusive approach when determining the value of cultural resources.

- (x) Cultural resources in the Mapungubwe Cultural Landscape will be used in a sustainable way to meet present and future needs for the reconstruction of history, capacity development and poverty alleviation.

Policies relating to socio-ecological environment

Introduction

The People & Conservation Division (formerly known as the Social Ecology Unit) seeks to enable stakeholders in the Mapungubwe National Park to derive optimum and equitable benefits from opportunities created by the establishment of the Park, and in so doing to promote a national conservation ethic. The People & Conservation Division has been included as a division of the Conservation Services Department in line with their new role of promoting stakeholder groups' appreciation of conservation. The Unit's revised Key Performance Areas are Environmental Education and Cultural Resource Management, Economic Empowerment and Liaison and Partnerships. As has been noted the Mapungubwe National Park is renowned for its vast cultural resources as illustrated by the Stone Age deposits rock art and the Mapungubwe Hill and other associated sites.

The socio-ecological objectives for the Mapungubwe National Park

Derived to be in line with the mission of the SANParks and the Mapungubwe National Park Committee, the socio ecological objectives are to:

- (i) Interact with communities to ensure the development of mutually beneficial partnerships.
- (ii) Conduct Social Impact Analysis.
- (iii) Plan, design and manage the implementation of programmes at local and regional level.
- (iv) Develop a community participatory strategy.
- (v) Enhance community capacity, build new capacities by facilitating and training communities to manage and implement their projects.
- (vi) Adopt an integrated approach to community development by merging community structures with conservation and education systems.

Social Ecology embraces the development of eco-tourism ventures, environmental education and awareness, community projects and communication. The policies are designed to address specific aspects of the different categories, simultaneously ensuring the different policies remain part of the integrated whole.

Policies relating to socio-economic ventures

- (i) All such ventures will be developed in conjunction with the targeted communities. No discussions will take place on their behalf.
- (i) Create an enabling environment to provide opportunities for communities to receive technical and managerial skills to manage these ventures effectively and sustainably.
- (ii) Ensure that the communities become active participative partners in terms of decision-making and sharing in benefits.
- (iii) Park management will facilitate in the disposal/distribution of the communities' benefits.
- (iv) Where possible support staff and contracts will be drawn from or allocated to the targeted communities.

Policies relating to environmental education awareness

- (i) Collaborate with communities to compile databases of indigenous conservation practices to be included in environmental education programmes. Target specific groups within communities for environmental education.
- (ii) Plan and design programmes that are aimed at making conservation “people friendly”.
- (iii) Develop programmes in conjunction with the Department of Education that can be integrated in school syllabi aimed at promoting and creating awareness for nature conservation.
- (iv) Encourage the secondment of teachers from the Department of Education and environmental education personnel from the Department of Environmental Affairs and Tourism to implement environmental education in situ.

Policies relating to community partnership projects

- i) Facilitate and enable communities to reach goals in a viable and sustainable way.
- ii) Provide particular skills, if needed, for the successful completion of projects. For long term needs training will be provided to incumbents from within communities.
- iii) Access to resources within the boundaries of the park will be considered within the sustainable utilisation context and in accordance with other policies within the management plan.

Policies relating to communication

- (i) Communication with stakeholders will be consistent and aligned.
- (ii) Communicate the relevance and benefit of the park to both the privileged and the underprivileged.
- (iii) Establish effective communication and liaison structures.
- (iv) Create effective networks of co-operation.
- (v) Provide a park-based interpretative service.

Policies relating to tourism

Introduction

The National Parks Act (No 57 of 1976) (National Environment Management: Protected Areas Act No.57 of 2003) makes provision for the sustained utilization of national parks for the benefit and enjoyment of the public. In terms thereof it is the objective to provide visitors access to scenic, natural and cultural resources of the area for recreational, educational, cultural and spiritual purposes. To give effect to this objective the provision of facilities that support visitor access must be consonant with the policies that relate to the natural, cultural and socio-ecological environments. The policies are devised to enhance the natural and wilderness ambience, thereby ensuring the maintenance of the wilderness character of the Mapungubwe National Park. The access must support the potential to stimulate an awareness and appreciation for the natural environment and contribute to a growing sensitivity towards the environment in general.

Promotion of Visits

The objective is to encourage appropriate access to the Mapungubwe National Park for material, cultural, recreational and educational purposes. While a lot of promotional work has been done and the importance of Mapungubwe has been highlighted, access to Mapungubwe is still limited, although substantial tourism facilities are under construction.

Policies relating to promotion of visits are:

- (i) Ensure Thudwa is accessible to tourists and other interested groups.

- (ii) Ensure that tourist groups are aware of Thudwa and the vast experiences to be obtained from the MCL, and market these accordingly
- (iii) Maximize tourist benefit by balancing the natural and cultural beauties of the site.
- (iv) Promote visits by local school groups and the general public to the site

Although only these management policies were listed all the other policies of the MCL need to be kept in mind.