

MAPUNGUBWE CULTURAL LANDSCAPE

World Heritage Nomination Dossier

**Submitted to the
WORLD HERITAGE COMMITTEE**

**By the
Department of Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA**

January 2002

EXECUTIVE SUMMARY

State Party	South Africa
State, Province or Region	Northern Province
Name of Property	Mapungubwe Cultural Landscape
Geographical coordinates to the nearest second	NW corner 22°12'56"S 29°08'22"E NE corner 22°10'10"S 29°29'04"E SE corner 22°14'15"S 29°31'35"E SW corner 22°17'40"S 29°12'00"E
Textual description of the property boundaries	Proposed boundaries correspond to the Vhembe-Dongola National Park: in the north the Limpopo River; in the west the Alldays-Pont Drift road; in the south the Messina-Pont Drift road and the boundary of the farm Riedel; in the east the boundary of the farm Riedel and an as yet unsurveyed line up the western side of the irrigated lands on the farm Weipe
A4 size Map of property nominated, showing boundary of area proposed for inscription	A4 map attached
Justification Summary Statement of significance	<ul style="list-style-type: none"> ▪ The Mapungubwe Cultural Landscape was the centre of the first powerful indigenous kingdom in Southern Africa. It was established by the cultural ancestors of the present-day Shona and Venda between AD 900 and 1300. Evidence for its history is preserved in over 400 archaeological sites. The dynamic interaction between society and landscape laid the foundation for a new type of social organisation in the region. ▪ The kingdom grew as a result of wealth that accrued to its leaders from trade with the Indian Ocean network, combined with ideal landscape conditions for agriculture that provided for a population of over 9000 people. ▪ Trade goods included gold, glass beads, cotton cloth, Chinese ceramics, ivory, copper and hides. ▪ By the thirteenth century AD, a social hierarchy had developed and impacted on the landscape. Mapungubwe Hill was occupied and modified to separate the elite from the commoners below. ▪ The onset of the Little Ice Age caused drought and crop failures. The kingdom dispersed after AD 1300, new social and political alliances were formed and the centre of regional power shifted to Great Zimbabwe.
Criteria under which property proposed to be inscribed	(ii), (iii), (iv), (v)
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**MAPUNGUBWE
CULTURAL LANDSCAPE**

Chapter 1

**IDENTIFICATION OF
THE PROPERTY**

1. IDENTIFICATION OF THE PROPERTY

- a. Country:** South Africa
- b. Province:** Northern Province
- c. Name of property:** Mapungubwe Cultural Landscape
- d. Exact location:** NW corner 22°12'56"S 29°08'22"E
NE corner 22°10'10"S 29°29'04"E
SE corner 22°14'15"S 29°31'35"E
SW corner 22°17'40"S 29°12'00"E
- e. Maps – in roll**
- South Africa 1:250 000 Topographical Sheet 2228 Alldays Second Edition 1986
 - South Africa 1:50 000 Sheets 2229AA Pontdrif, 2229AB Mapungubwe, 2229AC Evangelina, 2229AD Coila, all Second Edition 1980
- Maps - in file and on CD**
- Figure 1 Orientation Map of the Limpopo Valley
 - Figure 2 Road map of the Mapungubwe Area
 - Figure 3 South Africa 1:250 000 Topographical Sheet 2228 Alldays Second Edition 1986
 - Figure 4 Satellite image of the proposed Mapungubwe World Heritage Site ±1:185 000
 - Figure 5 Properties for inclusion in the Mapungubwe Cultural Landscape ±1:250 000
 - Figure 6 Middle Iron Age archaeological sites in the Mapungubwe Cultural Landscape ±1:250 000
 - Figure 7 Rock art sites in the Mapungubwe Cultural Landscape ±1:250 000
 - Figure 8 Late Iron Age (post Mapungubwe) archaeological sites in the Mapungubwe Cultural Landscape ±1:250 000
- f. Area of property proposed for inscription** 28 168.66 ha

Note: There are additional Mapungubwe Period sites on the Zimbabwe and Botswana side of the Limpopo River that formed part of the original Mapungubwe Cultural Landscape. A joint nomination to include these sites may be considered in a future submission to the World Heritage Committee.

**MAPUNGUBWE
CULTURAL LANDSCAPE**

Chapter 2

**JUSTIFICATION FOR
INSCRIPTION**

2. JUSTIFICATION FOR INSCRIPTION

a Statement of significance

The name Mapungubwe means the place of many jackals. The Mapungubwe Cultural Landscape, situated to the south of the confluence of the Limpopo and Shashe rivers on the border between South Africa, Zimbabwe and Botswana, is nominated for the World Heritage List as a cultural landscape that retains both tangible and intangible traces of the first powerful indigenous kingdom in Southern Africa that evolved between AD 900 and 1300. The people whose culture shaped and was shaped by the landscape laid the foundation for subsequent Southern African class-based societies and settlement patterns, including those at Great Zimbabwe and Khami.

The kingdom flourished as a result of new social and ideological values brought about primarily by participation in the Indian Ocean trade network along the east coast of Africa, combined with rich natural resources and ideal climatic conditions that allowed sustainable agriculture for a large population.

Fundamental social adjustments to the consequences of accumulated wealth in products such as gold, ivory, glass beads and cotton cloth, were reflected in the social and physical separation of an elite class and sacred leader on the top of Mapungubwe Hill, with commoners on the plains below. The power of the ruling class is evident from their distinctive hilltop graves, and grave goods such as a golden rhinoceros.

Over 400 archaeological sites in the core area of nearly 30 000 hectares contain tangible evidence for the evolution of this indigenous kingdom. It had its roots in changes that began when Early Iron Age farming people migrated southwards from West Africa between 350 and 600 AD and came into contact with San hunter-gatherers. Three main phases of subsequent development are recognised in the Mapungubwe Cultural Landscape.

The first phase, known as Zhizo, lasted from about AD 900-1020 and is best preserved at the site of Schroda. The second phase, known as Leopard's Kopje or K2, has been investigated in most detail at the site known as K2 on the farm Greefswald and dated from about AD 1020-1220. The most elaborate settlement during the third phase was on Mapungubwe Hill and the adjacent Southern Terrace and dated from AD 1220-1300. The power of the kingdom ended abruptly with the onset of the Little Ice Age at the end of the 13th century AD. Resultant drought made it no longer possible to sustain the growing population and the power base for trade shifted to Great Zimbabwe. Some of the cultural practices of the present-day Shona and Venda peoples originated during this historical process.

At the height of its importance, between AD 1220 and 1300, the Mapungubwe Cultural Landscape sustained a population of at least 9000 people. Regular flooding of the Limpopo River provided silt and water for crops. Grazing lands enabled stock to be kept. Elephants were hunted for their ivory and other animals for their hides, while several steep-sided hills were used as ritual sites for rain-making. At least one of them, Mapungubwe Hill, was gradually modified over the years by the addition of tonnes of soil carried to the hilltop to provide the foundations for the elite homesteads and burial ground. The sites retain much of their original integrity as well as the intangible values with which they were imbued more than 700 years ago.

b. Comparative analysis

The Mapungubwe Cultural Landscape is the cultural and historical precursor to two sites on the World Heritage List, namely Great Zimbabwe and Khami, both of which are in Zimbabwe. Great Zimbabwe (the word *dzimbahwe* is a sixteenth century Karanga term for all capital towns) is about 250 km to the north-east and Khami is about 220 km north-north-west of Mapungubwe (Figure 1). In culture-historical terms, the pottery at Mapungubwe represents the early phase of the Zimbabwe Culture (Huffman 1996b).

Climatic changes during the Little Ice Age in the fourteenth century AD were accompanied by lower rainfall in this part of Africa. As a consequence, it was no longer possible to sustain agriculture to feed a large population in the Mapungubwe Cultural Landscape and the inhabitants of Mapungubwe dispersed at the end of the thirteenth century. A new trade axis was established and Great Zimbabwe (which was occupied from at least the 11th century until about AD 1450) gained the ascendancy from the beginning of the fourteenth century AD. Thereafter the power shifted to Khami which was occupied between about 1450 and 1640 AD. The Portuguese established themselves at trading posts on the East African coast only from the sixteenth century onwards.

Mapungubwe is the precursor to Great Zimbabwe in the sense that both belonged to the same regional culture and the leader at Great Zimbabwe took over as the major east coast trading partner. However, there is no evidence that either the Mapungubwe people or the sacred leader or his lineage moved to Great Zimbabwe from Mapungubwe.

The physical remains at the two sites are different, but nevertheless have the same origin. The most obvious contrast is that large-scale stone walling is not well developed at Mapungubwe, but is a strong feature at Great Zimbabwe. The style of the walling is nevertheless the same. At Mapungubwe there are neatly built walls with coursing and many of the stones have been deliberately squared off by chipping. There is also a similarity in the placement of the coursed stone walls. At Mapungubwe Hill, as at Great Zimbabwe, the high quality walling relates to the royal areas and to the main entrance to the hill. By the end of the period of occupation at Mapungubwe the inhabitants had already established a ruling class that lived apart from the commoners. At Great Zimbabwe, the clearly identified ancestors of the Shona-speaking people developed the physical separation of commoners and sacred rulers to an even greater extent, using large and elaborate stone-walled structures to emphasise this separation. The architectural design and stone-working skills were carried through to Khami when the power of the ruling class at Great Zimbabwe waned. There is historical support for the archaeological and ethnographic evidence of stratification of Mutapa society into sacred leaders and commoners in eastern Zimbabwe in the sixteenth century. The details come from reports by Portuguese traders in 1506, 1512 and 1551 and by the Dominican priest Father Joao dos Santos who visited the area between 1586 and 1597 (Huffman 1996b:9).

Mapungubwe, Great Zimbabwe and Khami each represents a different stage in the intertwined historical process of external trade and social stratification. Whereas the two Zimbabwean sites each cover a period of about two centuries, the core area of the Mapungubwe Cultural Landscape includes a series of three capitals that were occupied over a period of about 400 years. The story they tell is amplified with evidence from hunter-gatherer rock paintings, and follows the process of development from Central Cattle

Pattern settlements at Schroda and K2, to Mapungubwe Hill and the Southern Terrace where social stratification became entrenched.

The sophisticated stone walled structures at both Great Zimbabwe and Khami are in a good state of conservation. They have been partly reconstructed and have been open to the public for well over 50 years. Archaeological excavations have been conducted at both places. Although both Great Zimbabwe and Khami are visually more impressive than Mapungubwe because of their stone walling, the Mapungubwe Cultural Landscape retains a greater degree of integrity because of the lower impact of tourism and the minor level of intervention.

In a broader global context, Mapungubwe can be compared with the early city states in Central America and the Near East that record the origins of civilisation in those continents. Although Mapungubwe is much more recent than its counterparts, and there are similarities in the effects of sedentary agriculture, trade, population increase and class distinction, the cognitive use of the landscape is different. Whereas successive populations elsewhere built settlements on top of each other to emphasise dominance by ethnic replacement, in the Mapungubwe Cultural Landscape different parts of the landscape were selected at different times. Archaeological deposits therefore tend to represent a limited time period of a century or two, although cultural material from more than one tradition is found at several sites.

c. Authenticity/Integrity

The remains of the design, material, workmanship and setting of individual sites, and the distinctive character and components of the Mapungubwe Cultural Landscape, are largely intact, despite the passage of between 700 and 1100 years.

There has been little intervention at any of the sites in the Mapungubwe Cultural Landscape. Archaeological excavations have removed artefacts from deposits at Schroda, Pont Drift, K2, Mapungubwe Hill and the adjacent Southern Terrace, Den Staat, Leokwe Hill, Samaria, Little Muck shelter, Balerno, Blyklip and Skutwater. The excavations have been stabilised and filled in where possible and the materials recovered are curated at the University of Pretoria, at the University of the Witwatersrand in Johannesburg and at the African Window Museum in Pretoria.

The natural landscape has been modified along the Limpopo River where commercial farming has been undertaken during the past century. Cattle ranching was the main source of income for the past century or more and since the 1970s has been gradually replaced by game ranching and irrigation crop farming. Farm houses, farm buildings and staff accommodation have been built and various irrigation measures have been installed. Much of this development post-dates 1980 when electricity became available to farmers along the river and when local roads were upgraded and tarred. Large sections of the Limpopo floodplain were cleared and irrigation agriculture replaced game and cattle ranching along the river. Properties in the core area that have been or will soon be acquired in order to avoid conflicting land use, will be managed by SANParks. Farming in the core area has either ceased already or will be phased out over the next five years. Where contractual agreements are in existence with the diamond mining company De Beers, access is

permitted for the maintenance of a water pipeline from the Limpopo to the Venetia mine in the buffer zone about 50 km to the south.

Once the properties in the core area have been acquired by the State, or the owners have entered into a contractual agreement with SANParks, and the properties have been consolidated, all fences will be removed to allow elephants and other game animals to range freely. The flow of game will be extended further with the establishment of the proposed Trans Frontier Conservation Area that will extend across the Limpopo into Botswana and Zimbabwe.

d. Criteria under which inscription is proposed

The following criteria apply to the Mapungubwe Cultural Landscape.

- (ii) *it exhibits an important interchange of human values, over the time period between AD 900 and 1300 in Southern Africa, on developments in technology, and town-planning ; and*
- (iii) *it bears a unique or at least exceptional testimony to a cultural tradition or to a civilization which has disappeared; and*
- (iv) *it is an outstanding example of a type of architectural and technological ensemble and landscape which illustrates a significant stage in human history; and*
- (v) *it is an outstanding example of a traditional human settlement and land-use which is representative of a culture that became vulnerable under the impact of irreversible change.*

Furthermore, under Article 39, as a *cultural landscape* it falls into the category of an: *organically evolved landscape, and into the sub-categories of*

- (ii) *a relict (or fossil) landscape in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form;*
- (iii) *an associative cultural landscape ... by virtue of the powerful religious, artistic and cultural associations of the natural elements of the landscape rather than material cultural evidence, which may be insignificant or even absent.*

Justification for inscription in terms of these criteria is as follows.

- (ii) ***It exhibits an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture, or technology, monumental arts, town-planning or landscape design.***

The Mapungubwe Cultural Landscape contains authentic evidence for an important interchange of human values that led to cultural and social changes in Southern Africa between AD 900 and 1300. These values are reflected in evidence for international trade in

the Indian Ocean network that created wealth in the community, causing ideological adjustments and changes in architecture and town-planning. The archaeological evidence shows a shift from a 'central cattle pattern' town layout to a pattern influenced by an elite class with sacred leadership in which the king was secluded on the top of Mapungubwe Hill, away from the commoners (Figure 11).

(iii) It bears a unique or at least exceptional testimony to a cultural tradition or to a civilization which has disappeared

Until its demise at the end of the thirteenth century AD, Mapungubwe was the most important inland settlement in the subcontinent. The distribution of Mapungubwe pottery shows that in its heyday between AD 1220 and 1300 the kingdom extended over an area of about 30 000 sq km on either side of the Limpopo and Shashe rivers. The cultural landscape contains a wealth of information in archaeological sites that record the development of the kingdom from relatively small settlements based on a central cattle kraal to a capital with separate areas for the elite and commoners. High status burials containing several unique gold leaf items (Photo 36) that once covered wooden sculptures, as well as thousands of gold beads, provide the earliest physical evidence of substantial gold working in the sub-continent (Arab written records mention trading with gold on the east coast in AD 927). The gold work and related trade network is the indigenous precursor to the subsequent European exploitation of this precious metal in Southern Africa that began more than 500 years later. Glass beads, spindle whorls and fragments of Chinese porcelain are evidence for a flourishing trade with the east coast of Africa and, from there, with India, Indonesia and China (Photos 23, 31-34).

The power-base of the Zimbabwe-type culture that developed along the Limpopo later shifted to Great Zimbabwe when the rainfall regime altered and it was no longer possible to support a large sedentary population.

Although farming communities continued to live on and off in the Mapungubwe region after AD 1300, they never again reached the same high population density or political power. As a result of subsequent social and political events and colonial intervention in the last 400-500 years, direct linkages with the original population at Mapungubwe have become obscured. Current royal lineages and genealogies of descendant Shona and Venda people cannot be convincingly traced back to AD 1300, although some of their current cultural practices have their roots in the Mapungubwe cultural landscape. Oral history confirms that the name Mapungubwe means the place of many jackals, but recent consultation with local communities was not able to establish the significance of the name (Ralushai 2001).

The significance of Mapungubwe as a sacred rain-making site has remained in the intangible heritage of local people. According to folklore recorded by Professor Victor Ralushai (2001), long ago some *mashonzha* worm catchers slept close to Mapungubwe Hill and made a big fire for roasting the worms. Late at night they heard voices of people and the sound of drums and singing on the Hill. After an hour, rain began to fall and their fireplace was filled with rainwater. There was great thunder and lightning and they were very scared. They heard noises of wild animals in the neighbourhood and were even more frightened. The noise and thunder stopped immediately when one of the oldest members of

the group appealed to the ancestors to save them. She poured snuff on the ground and began to pray “We did not know that this was a burial ground. We are your children”.

(iv) ***It is an outstanding example of a type of architectural and technological ensemble and landscape which illustrates a significant stage in human history***

The Mapungubwe Cultural Landscape is an important addition to the World Heritage List because in the Southern African context it is where international trade, combined with ideal climatic conditions for agriculture, most effectively changed human settlement and cultural traditions and led to the establishment of sacred leadership. In developing international contacts with Islamic traders on the east coast who were part of a larger Indian Ocean network, African gold and elephant ivory, as well as animal hides and hippo ivory, were worked and exchanged for glass beads and ceramics that derived from as far afield as the Indo-Pacific region, including India and Indonesia, and China (Figure 9).

It is also the only geologically defined cultural landscape in the region that includes such a full set of successive stages in the early history of this process. Its nomination completes an historical triangle from Mapungubwe to Great Zimbabwe and Khami that continues to influence African society today.

Hunter-gatherer and herder rock paintings record some of the ideological and economic changes and new metaphors of power that arose when Iron Age farmers settled in their territory in the first millennium AD. By AD 500, rain-making was being practised by cattle farmers at several sites, but unfavourable climatic conditions and a lower rainfall halted further agricultural activities for several hundred years.

During the first phase of international trade, the community at Schroda was in control of the regional trade in ivory for glass beads which they obtained from traders operating along the east coast between AD 900 and 1000. The settlement was laid out according to the Central Cattle Pattern. A large cache of baked clay figurines indicates that the village was at times an important centre for female initiation.

Between AD 1020 and 1220, the most powerful chief in the region lived at K2 about 7 km from Schroda (Figure 6). The significantly increased wealth of his community derived from not only participating in, but also controlling, international trade. These ancestors of present-day Shona-speakers abandoned the Central Cattle Pattern village layout in the course of their stay at K2 and began to separate activities associated with cattle from the rest of society. They developed a unique method of making their own glass beads – called garden rollers by archaeologists because of their shape (Photo 32) – by melting glass from smaller imported beads that derived from the Indo-Pacific region.

As a result of the expanded trade network, a new indigenous social order based on class distinction developed and the move away from the long-established Central Cattle Pattern was completed. The social order became stratified into an upper and lower class that restructured the kinship pattern and gave the upper class economic and political power. The capital moved to Mapungubwe Hill where, between AD 1220 and 1300, the elite lived on the hilltop and the commoners lived below on the flat lands around the hill, now generally referred to as the southern terrace and the northern plateau (Figure 11). It is probable that

the minor royals lived on the slopes of the hill. Architectural features in the form of dry stone walling and differentiation in the placement of elite and commoner living spaces emphasised the new social order. Indigenous gold was worked and traded, ceramics from China indicate that trade had expanded and spindle whorls (Photo 23) are evidence for the spinning and cultivation of cotton.

39 (ii) The Mapungubwe Cultural Landscape is an organically evolved landscape that has resulted from an initial social, economic, administrative, and religious imperative and developed by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features. The Mapungubwe Cultural Landscape falls into the sub-category of a relict (fossil) landscape in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.

39 (iii) an associative cultural landscape ... by virtue of the powerful religious, artistic and cultural associations of the natural elements of the landscape rather than material cultural evidence, which may be insignificant or even absent.

The Mapungubwe Cultural Landscape evolved in response to:

- Social imperatives that required a regional population of sufficient size to enable a hierarchy of settlements to develop that would maintain political control and a critical mass for the exchange of goods and marriage partners;
- Subsistence imperatives that utilised ideal climatic, hydrological and geomorphological conditions to develop agricultural production and sustain the largest population ever to have lived in the core area of the Mapungubwe Cultural Landscape.
- Economic imperatives that drove the internal trade in hides, ivory and gold and, later, cotton, and enabled these to be traded outside the kingdom and exchanged for exotic products such as glass beads, glazed ceramics and cloth so that wealth could be accumulated by political leaders; and
- Administrative and religious imperatives that sought to maintain the hierarchy of elite sacred leaders vs commoners once it had developed.

Physical features of the landscape both influenced the placement of settlements and were selected for particular purposes at different times in the Mapungubwe Cultural Landscape, while changing climatic conditions affected the time span of the settlements. The close proximity of the capitals at Schroda, K2 and Mapungubwe probably reflects other factors that played a part, such as the location of preferred east-west and north-south trade routes or the proximity of agricultural land or fresh water. Intangible meanings, now lost, may also have been attached to certain landscape features. Some of the more obvious factors are:

- Geographically, the Mapungubwe Cultural Landscape is centred on the confluence of the Limpopo and Shashe rivers (Figure 4). For several hundred years the confluence has been on a route for north-south movement of people from central to southern Africa and for west-east traffic from the interior of the sub-continent to the east coast about 600 km away. Although for much of the year the sandy beds can now be crossed on foot because of dams and irrigation upstream, it is more than likely that the river ran the whole year round between AD 900 and 1300. The geographical situation has ensured

that the rivers brought water from different catchment areas with different rainfall regimes. Rocky outcrops narrow the valley near the confluence causing interruption of the flow of water so that rich silt is dumped on the floodplain. Higher terraces and hills kept settlements above the flood level.

- Geologically, the Mapungubwe Cultural Landscape closely corresponds to an outcrop of cave sandstone on the outer rim of the Karoo System. The sandstone has weathered into caves that were occupied by Stone Age hunter-gatherers and have been decorated with rock art that records the changing ideology of the people who lived there. Early Iron Age settlements were situated on elevated terraces away from the Limpopo River and were laid out according to the classic Southern African Central Cattle Pattern with cattle kraals surrounded by households. The sandstone has also weathered into unusual steep-sided hills that rise dramatically out of the flatter surrounding land. Some of the higher hills were used for rain-making by the earliest Iron Age inhabitants. Later, a few of these same rock formations provided natural landscape features for the elite members of society with high status to be elevated and separated from the commoners.
- Climatically, at times of reliable and moderately high rainfall in the past, alluvial soils brought downstream by the Limpopo and Shashe rivers in flood were used in floodplain agriculture. Similar climatic conditions enabled the local red mudstone soils to be used for dry land crops such as millet and promoted reliable stands of natural grasses for stock grazing.

- (v) *The Mapungubwe Cultural Landscape is an outstanding example of a traditional human settlement and land-use pattern which is representative of a culture or human interaction with the environment that became vulnerable under the impact of irreversible change.*

During the past two millennia, periods of warmer and wetter conditions suitable for agriculture in the Limpopo/Shashe valley were interspersed with cooler and drier pulses. Tyson & Lindsey (1992) and Huffman (1996a) summarise these as follows (see Figure 10):

YEARS AD	CLIMATE
100-250	cool and dry
250-600	mostly warm and wet, but variable
600-900	variable but cooling and drier
900-1300	variable but warmer and wetter, coinciding with the Medieval Warm Epoch in the northern hemisphere
1300-1500	cooler and drier, corresponding with the Little Ice Age
1500-1800	cool initially, but warming

When rainfall decreased after 1300 AD, the Mapungubwe Cultural Landscape could not continue to sustain a high population using traditional agricultural methods, and the inhabitants were obliged to disperse.

The occupation of areas like Schroda, K2 and the Mapungubwe southern terrace by thousands of people for a century or more changed the contours irrevocably too. Pole and

daga (clay) houses thatched with grass collapsed or were burnt and others were built on top of them. Middens of ash and dung built up to substantial depths alongside the houses and the accretion of occupation debris created new platforms for further expansion of settlements.

The move from K2 to the southern terrace below Mapungubwe Hill was necessary because the layout had become out of step with the socio-political change that had occurred. The Central Cattle Pattern was no longer appropriate and topographically K2 could not be adapted to the new ideology as this required physical separation of the sacred leader from the commoners. At Mapungubwe Hill, this spatial separation could be expressed from the beginning to reflect the new socio-political order (Huffman 2000:26).

During the period of intensive occupation, the hilltop at Mapungubwe was gradually modified. Large quantities of soil were carried up to create an artificial platform for houses and for graves (Photos 7 and 8). Low walls were built to demarcate the entrance to the hill and to strengthen and clearly demarcate terraces and pathways. Where required, holes were drilled into the rock to anchor house poles. Adjustments were also necessary to acknowledge the changes in rain-making practices in which the sacred leader no longer made rain himself, but called on his ancestors to intercede with God on his behalf to make rain. He built his palace on top of the old rainmaking site to appropriate the power of the place and thus to strengthen and legitimate his new role. In the process the transformation from a ranked to a class-based society involved a change in practice and theology as well as a physical change to the landscape (Huffman 2000:27).

The Mapungubwe Cultural Landscape records the sequence of spatial changes that reflect the evolution of class distinction and sacred leadership in the settlements from Schroda to K2 and finally to Mapungubwe. These are the only places where exotic trade and non-utilitarian items have been found in such large quantities. The combination of accumulated wealth from trade, annual renewal of agricultural soil on the floodplain, population growth during a period of favourable climate, and a landscape that lent itself to the spatial expression of class distinction allowed a complex society to evolve here. By the same token, the shifting of the trade centre when drier climatic conditions reduced the population meant that the population necessary to maintain the power of the sacred leader could not be sustained beyond AD 1300.

**MAPUNGUBWE
CULTURAL LANDSCAPE**

**Chapter 3
DESCRIPTION**

3. DESCRIPTION

a. Description of property

i. General description of the property

The Mapungubwe Cultural Landscape is situated in the physiographic region known as the Lowveld in an ancient valley that includes the confluence of the Shashe and Limpopo Rivers. These rivers drain an extensive area and form the international border between South Africa in the south, Botswana in the north west and Zimbabwe in the north east.

Geologically, the core area of the Mapungubwe Cultural Landscape (MCL) is centred on a relatively isolated outcrop of sandstone hills, underlain by red mudstones and intruded by dolerite dykes. The formation is part of the Karoo System. The sandstones are up to 300 m thick in places. They are stratigraphically correlated with the Clarens Sandstone Formation, formerly known as Cave Sandstone, that formed during the Triassic between 225 and 190 million years ago and they contain fossils of that time period (Kent 1980:542). Partial skeletons of *Massospondylus* sp. have been found on Greefswald, Weipe and Schroda and across the border in Zimbabwe, and their footprints at Pont Drift have been declared a national monument. The sandstones have been used in other parts of South Africa as well as in the MCL as ideal surfaces for rock paintings. The dolerites are intrusive and date to between the late Triassic and the Cretaceous. Most of the land in the core area is between 500 and 630 m above mean sea level.

The climate is sub-tropical with rare frost and mean daily temperatures of about 17°C in winter and 25°C in summer. Rain falls mainly in summer but is erratic both seasonally and from year to year and ranges from 140 to 500 mm per annum. Part of the reason for the low rainfall is that the MCL lies at a low altitude of less than 500 m above sea level and is in the rain shadow of the higher and more extensive Soutpansberg range to the south and east.

Vegetation on the soils derived from mudstones and sandstones is classified as Mopane Veld, a Savannah Bushveld dominated by the shrub *Colophospermum mopane*. The mopane tree grows to a full height of 6 metres when it is established on deep sandy soils, but in most of the Mapungubwe Cultural Landscape its growth is stunted by shallow soil and limited water. Along the Kalompe River on the farms Little Muck and Den Staat, there are numerous tall mopane trees in the deep alluvial soils, together with a variety of acacias and other trees such as marula and baobab (*Adansonia digitata*), riverine species and grasses. A list of plants recorded and expected in the area is included in the Preliminary Park Management Plan.

The combination of soils derived from the rocks of the Karoo System, regular flooding of the Limpopo and its tributaries, good grazing and browsing lands and dry mopane leaves for fodder during the winter, provided the natural resources for both agriculture and stock farming that were needed to sustain a large population when the leaders at Mapungubwe were at the height of their power.

The core area is about 35 km from Pont Drift in the west to Schroda in the east, and is mostly less than 10 km from the Limpopo River in the north to the tarred road linking Pont Drift and Messina in the south (Figures 3 and 5). The 24 original farms, some of which have been subdivided over the years, comprise 28 168.66 ha.

The principal properties are the Vhembe-Dongola National Park in which some land is owned by SANParks and the rest is owned privately but is managed by SANParks as a contractual park. The farms in the core area are listed in Table 4.1.

The following properties are in the buffer zone which, added to the core, comprises a total of about 100 000 ha.

Venetia-Limpopo Nature Reserve	De Beers
Vhembe Nature Reserve	Leif Rahmqvist
Limpopo Valley Game Reserve	Various private owners

During the twentieth century large tracts of land along the Limpopo River were developed for commercial farming where irrigation was possible. This has changed the character of the floodplain in certain areas, particularly on farms on the eastern border of the core area. Over the past few decades, however, there has been increasing interest in nature conservation. Most of the properties acquired by SANParks and those contracted to it are now exclusively devoted to nature conservation and game viewing and most of the land in the buffer zone has similar land use.

As a result of the establishment of the Peace Parks Foundation in 1997, government has entered into discussions with Botswana and Zimbabwe about the possibility of establishing a Trans-Frontier Conservation Area (TFCA). It is envisaged that this will include the Mapungubwe Cultural Landscape core area and buffer zone on the South African side. The intention would be to add the Tuli Block and Southern Tuli Game Reserve in Botswana and the Tuli Circle, Maramani Communal area, Sentinel Ranch and Nottingham Estates in Zimbabwe to the buffer zone (Figure 2). On-going negotiations with Botswana and Zimbabwe will help to identify management issues and how these should be addressed.

When this conservancy area has been consolidated, fences will be removed. The Park area will then include a large number of game animals such as elephant, giraffe, hippopotamus, impala, waterbuck, kudu, eland, bushbuck, mountain reedbuck, klipspringer, blue wildebeest, bushpig, warthog, aardvark, leopard, lion, cheetah, zebra, monkey, baboon and a variety of smaller mammals.

The TFCA has excellent potential as a "big five" conservation area. Viable populations of lion, leopard, and cheetah still occur, and the population of 900 (September 2000 census) elephants in the Tuli Block in Botswana is the largest population on private land in Africa. Ungulates already present include eland (*Taurotragus oryx*), impala (*Aepyceros melampus*), blue wildebeest (*Connochaetes taurinus*), Burchell's zebra (*Equus burchelli*), Sharpe's grysbok (*Raphicerus sharpei*), and steenbok (*Raphicerus campestris*), and there is suitable habitat for both black and white rhino (*Diceros bicornis* and *Ceratotherium simum*). The area also has 19 Red Data Book mammals. No detailed information is available on birds, reptiles and amphibians found specifically within the TFCA, although the area around the confluence of the two rivers is known to have a great diversity of birdlife. Three main vegetation communities are recognized in the region: the riparian fringe occurs along the main rivers and their tributaries, the *Acacia-Salvadora* community occurs on the Limpopo flats and vlei areas, and the mixed western mopane veld occurs on ridges and flats south of the riparian fringe and flood plains. Twenty-six Red Data Book plant species have been recorded in the area. Large areas of the proposed TFCA have been severely disturbed and degraded due to previous intensive agricultural farming activities in the core area.

Introductions of mammals into the Venetia Limpopo Nature Reserve in the buffer zone include 44 elephants from 1991-1994, 10 roan *Hippotragus equinus*, 10 sable *Hippotragus niger* and 20 tsessebe *Damaliscus lunatus* in 1994. A major constraint to the movement of animals in the area is the presence of the veterinary cordon fence and an electrified military barrier on the South African side of the Limpopo River, and this needs to be addressed urgently. Once established, this TFCA has the potential to be a significant sanctuary for wild dog, black rhino and elephant and for the 16 other Red Data Book species. Wild dog and elephants in particular would benefit from the larger area of the TFCA.

The Limpopo/Shashe TFCA with its wealth of wildlife and scenery and its cultural/historical assets has the potential to become a major new tourist destination in southern Africa. Existing tourist facilities are mainly restricted to a small number of privately run lodges in Botswana (which already attract about 20,000 visitors each year), and an even smaller number within South Africa. In Zimbabwe, the Tuli Circle Safari Area in Zimbabwe is used extensively for hunting under permit. The proposed national park on the South African side of the TFCA could attract 30,000 additional visitors per year. All three countries have potential for private sector investment in ecotourism development.

b. History and development

i. History of research in the Mapungubwe Cultural Landscape

Mapungubwe was the largest settlement in the sub-continent in the thirteenth century AD before it was abandoned. Various communities settled in the vicinity over the next 600 years. Legends and rumours about the place were passed on from generation to generation. Karel Moerschell, a German farmer based at the western end of the Soutpansberg in the area of present-day Vivo, knew about the gold by 1911. He published a book called *Der Wilde Lottrie* about a man named Lotrie Lottry, an elephant hunter who left Schoemansdal and lived as a recluse in the Limpopo Valley. Lottry is reputed to have stayed in the rock shelter on the western end of Mapungubwe Hill and to have removed a pot filled with gold from the hilltop (Edwin Hanisch, pers. comm. December 2001). It is said that he buried it somewhere below the hill, but it was not until the 1930s that the reasons for the significance of Mapungubwe became more widely known.

On 31 December 1932, the son of a local informant, Mowena, led E.S.J. van Graan, his son and three other men to Mapungubwe Hill on the farm Greefswald. They saw stone walls, gold and iron artefacts, pottery and glass beads there and realised its importance. They returned on New Years Day 1933 and recovered more items, including the contents of a grave with more gold objects. The finds, which received wide publicity in the media, were reported to the head of the Department of History at the University of Pretoria, Professor Leo Fouché. As a result of his intervention, the University negotiated with the owner of the property, E.E. Collins. In a legal agreement the University took ownership of the gold and other artefacts and secured an option and contract for excavation rights. The University also successfully requested a postponement of prospecting, mining and related activities on Greefswald. In June 1933, Greefswald was bought by the Government and excavation rights were granted to the University of Pretoria (Meyer 1998:19-20).

As there was no Department of Archaeology at the University of Pretoria at that time, the University established an Archaeological Committee from 1933 to 1947 to oversee

research and excavations that began in 1934. Rev. Neville Jones from Zimbabwe and J.F. Schofield were appointed to undertake the first fieldwork in 1934 and 1935 and they were advised by Professor C van Riet Lowe, Director of the Bureau of Archaeology. Their work focused on Mapungubwe Hill, the southern terrace and the midden then known as Bambandyanalo, but later named K2. They also noted the stone walling, now known to belong to the later Venda period, on Bambandyanalo Hill that lies between K2 and Mapungubwe, and they briefly surveyed other similar sites in the vicinity.

From 1935-1940 six excavation seasons at K2 and Mapungubwe Hill were directed by Guy A. Gardner who was called up for military service in 1940 and was unable to continue after the War. The results of his work were published nearly 25 years later (Gardner 1963). Without the benefit of comparative studies, and influenced by incorrect conclusions from the analysis of human skeletal remains from graves at K2 by Galloway (1959), Gardner believed that the earliest inhabitants at K2 and Mapungubwe Hill were Khoekhoe (“proto-Hottentot” in his terminology) who were supplanted by Iron Age Nguni immigrants. Galloway’s conclusions were later corrected by Rightmire (1970) who demonstrated that all the people buried on Greefswald fell within the range of variation of the negroid population associated with the Iron Age throughout Southern Africa.

Meyer (1998:23) describes the excavations on Greefswald between 1933 and 1940 as “rapid, large scale excavations resulting in the recovery of valuable artefacts”. Research was hampered by “the lack of professional archaeologists in South Africa, the lack of full-time supervision of the excavations by efficient, trained staff, the fact that adequate scientific methods for Iron Age research had not yet been developed and that the Iron Age in South Africa was virtually unknown to archaeologists. Consequently, many of the deposits on the sites were removed without the meticulous excavation and recording required ... These problems inevitably resulted in a loss of irreplaceable deposits and eventually also of excavated materials [and] a lack of scientific data”.

The next phase of archaeological investigation, in 1953-1954 and 1968-1970, under the direction initially of the Department of Anthropology, and then of Professor J F Eloff who was appointed as Head of the newly-formed Department of Archaeology at the University of Pretoria in 1970, was more systematic and focused mainly on the southern terrace.

Over the next 25 years from 1970 to 1995, the Department of Archaeology at the University of Pretoria recognised that their first priority was to establish a firm data base by testing, correcting and supplementing the earlier research, and concentrating on reconstructing the way of life of the site inhabitants (Eloff 1979). A summary of the results of this work was published by Professor Andrie Meyer (1998) who became Head of the Department of Archaeology several years after the retirement of Professor Eloff. Specialist reports have been published on the faunal remains (Voigt 1983), human skeletal remains (Steyn & Henneberg 1994, 1995b, 1996, 1997; Steyn & Nienaber 2000), Chinese porcelain (Meyer & Esterhuizen 1994), gold objects (Oddy 1984; Miller et al. 2000), glass beads (Saitowitz et al. 1995; Wood 2000) and radiocarbon dating (Vogel 1998, 2000).

In addition to the fieldwork and research done on Greefswald, sites on neighbouring farms were also investigated by students of the University of Pretoria during the 1970s and 1980s. The most significant of these were Schroda and Pont Drift (Hanisch 1980, 1981a, 1981b) and Skutwater (Van Ewyk 1987). Since the early 1990s, Professor T N Huffman, Dr Simon Hall and students from the Department of Archaeology at the University of the

Witwatersrand in Johannesburg have been surveying and excavating sites to the west of Greefswald at Leokwe Hill, Little Muck and Balerno (Calabrese 1997, 1998, 2000a, b; Hall & Smith 2000; Huffman 2000; Smith & Hall 1999).

A comprehensive list of known sites in the core area of the Mapungubwe Cultural Landscape, in the buffer zone, and in Botswana and Zimbabwe, has been compiled by Huffman and is synthesised in Figures 6-8. The list also contains all rock art sites recorded during field surveys in the core area and adjacent properties in Zimbabwe by Palaeo-Art Services, a voluntary organisation co-ordinated by Ed Eastwood.

Greefswald has remained the property of the State since the 1930s. Access was restricted during the 1970s, 1980s and early 1990s when the property was used by the South African Defence Force because of its strategic position on the border with Botswana and Zimbabwe. Management of the farm was taken over by the provincial Department of Nature Conservation in 1992, and control was transferred to SANParks in 1999.

ii. History and development of the Mapungubwe Cultural Landscape

The significance of the geographical positioning of the Mapungubwe Cultural Landscape is evident from the large number of archaeological sites that cover a wide range of time periods from the Earlier Stone Age at least 500 000 years ago, through to the nineteenth century AD. The combination of the riverine environment and the sandstone hills has provided a focus for human settlement whenever climatic conditions have been favourable.

The Southern African landscape was occupied for hundreds of millennia by indigenous Stone Age hunter-gatherers who were the ancestors of the San (Bushmen). Within the core area there are at least 26 sites that they were occupied during the Stone Age. Earlier Stone Age people camped near the river between about 0.5 million and 250 000 years ago. They were followed by Middle Stone Age groups who occupied open sites and used rock shelters as well. From about 20 000 years ago, Later Stone Age people were also using both rock shelters and open sites. Their artefact assemblages began to include tools such as bows and arrows and ornaments such as ostrich eggshell beads that were still being used by their San descendants up to a few centuries ago. Within the last five or ten thousand years, the hunter-gatherers also made rock paintings and engravings (see Figure 7).

When Bantu-speaking Iron Age farmers with domesticated crops and livestock migrated southwards into the region from West Africa about two millennia ago, some hunter-gatherers acquired domesticated stock from them and became herders with sheep and cattle. These early herders may have been people of San descent and are usually referred to as the Khoekhoe. The term Khoisan refers to both the San and the Khoekhoe as the first indigenous people of the sub-continent. Apart from characteristic Bambata pottery which is the earliest pottery in the regional sequence, and the rock art which includes paintings of sheep (Photo 17) and 'finger' paintings ascribed to herders, however, there is no archaeological evidence of Khoekhoe herder settlement in the Mapungubwe Cultural Landscape. It is generally assumed that the herders moved fairly rapidly southwards ahead of the Iron Age migration and settled mainly in the south-western part of Southern Africa.

The earliest Iron Age farmers in the Mapungubwe Cultural Landscape (MCL) have left archaeological traces of their presence in the form of pottery and middens dating from

about AD 350 in the region. The pottery is classified as Happy Rest after the name of the site in the Soutpansberg where it was first described. The population remained small and was constrained by changes in the rainfall regime so that at times, such as between AD 600 and 900 when temperatures were cooler and rainfall was low, there is no evidence for the presence of farmer settlements.

Three phases can be identified within the main occupation period of the MCL. The dating, economy, origins of the people, settlement pattern and characteristic artefact traditions are summarised in the Table below.

PHASE	DATING	ECONOMY	PEOPLE	SETTLEMENT PATTERN	MATERIAL CULTURE
MCL Phase 1: Zhizo	900-1020 AD	Iron Age agriculturists	Bantu-speakers. Population in MCL estimated at 1900	Central Cattle Pattern. 23 Recorded sites on Schroda (1) Den Staat (1) Greefswald (6) Little Muck (6) Pont Drift (3) Hamilton (1) Samaria (3) Modena (1) Weipe (1)	Zhizo pottery; clay figurines, Ivory objects, imported glass beads, iron and copper working
MCL Phase 2: K2	1020-1220 AD	Iron Age agriculturists	Ancestors of Shona-speakers. Population in MCL estimated at 5300	Central Cattle Pattern. 87 Recorded sites on Den Staat (26) Greefswald (6) Hamilton (8) Little Muck (9) Machete (3) Rhodes Drift (1) Reidel (1) Samaria (23) Pont Drift (2) Modena (2) Schroda (4) Weipe (2) LK on Machete (1) Samaria (1)	K2 / Leopard's Kopje pottery, ivory objects, imported and reworked glass beads, iron and copper working
MCL Phase 3: Mapungubwe	1220-1300	Iron Age agriculturists and traders	Ancestors of Shona-speakers. Population estimated in MCL: 9000	Zimbabwe pattern with elite on hilltop, and commoners below. 25 Recorded sites on: Den Staat (3) Greefswald (4) Hamilton (2) Little Muck (1) Samaria (13) Weipe (1) Skutwater (1)	Mapungubwe pottery, gold objects, copper, iron glass beads, imported ceramics

The transition from Stone Age to Iron Age in the Mapungubwe Cultural Landscape began during the first millennium AD. It is not the main focus of this nomination, but as the San

recorded aspects of this change in their rock art, some background is provided before proceeding with a detailed description of the sites dating to the Mapungubwe Cultural Landscape period from AD 900-1300. The description is divided into the following time periods:

- **Transition** from Stone Age to Iron Age between AD 250-900 when indigenous Later Stone Age foragers (San hunter-gatherers) were gradually replaced and absorbed by immigrant herders and agriculturists as the main inhabitants of the Limpopo Valley. The herders and agriculturists are associated with pottery known as Bambata and Happy Rest respectively.
- **Phase 1:** the Zhizo Period. Iron Age farming communities, whose settlements were organised around a central cattle kraal, established themselves when climatic conditions improved after AD 900 and grew in number between AD 900-1020, developing trade links with the east coast;
- **Phase 2:** the Leopard's Kopje / K2 Period. Ancestors of the Shona-speaking people of Southern Africa replaced the Zhizo people but remained organised around the central cattle pattern between about AD 1020 and 1220. As commoner and ruling classes became differentiated, the integrity of the central cattle pattern began to weaken towards the end of this phase.
- **Phase 3:** the Mapungubwe Period. A socially stratified Late Iron Age kingdom at Mapungubwe, dating to AD 1220-1300, developed strong trade links with the east coast and dominated the landscape for at least 70 years.

After the onset of less favourable climatic conditions, it was no longer possible to sustain a large population and the Mapungubwe kingdom dispersed, although small communities stayed behind. During later power struggles, especially in what is now the country of Zimbabwe, small groups of people moved in and out of the Mapungubwe area. Within the Mapungubwe Cultural Landscape these movements are recorded in the various pottery styles and settlement layouts at more than 100 sites dating to the Icon/Zimbabwe, Khami and Venda periods of occupation between AD 1300 and 1800. Even though population numbers and alliances did not remain static, the ideology for social stratification that developed at Mapungubwe remained a strong element in subsequent Zimbabwe, Khami, Shona and Venda culture.

The archaeological evidence that has enabled these generalisations to be made is summarised below.

iii. Transition from Stone Age to Iron Age

Early Iron Age people are known to have lived in the MCL between about AD 500 and 700 when the region received sufficient rainfall for sorghum to be grown and grass to grow for cattle and small stock. Happy Rest pottery that dates to this period has been found on the southern terrace and in eroded areas north of the hill at Mapungubwe (Meyer 1997, 1998) and on the top of several steep-sided hills that were apparently used at that time for rain-making. Little more is known about this time period, however, as an episode of lower

rainfall between about AD 700 and 900 led to a population reduction and there is little physical evidence of the presence of Iron Age people during that time.

In a survey by Palaeo-Art Field Services (Eastwood 2001; see Appendices), 150 rock art sites have been recorded in the Limpopo Shashe Confluence Area. These include 40 sites in Zimbabwe. There are therefore 110 rock art sites in the MCL and on adjacent farms. The sample of 150 includes 139 painted sites and 56 engraving sites, with most of the engravings found at the same sites as paintings. There are several different traditions that can be correlated with the cosmology of San hunter-gatherers and Khoekhoe herders and there are two examples of paintings by Iron Age people. The Limpopo valley is one of the rare instances in the sub-continent where rock paintings and rock engravings occur at the same place. In the MCL they are found together in rock shelters on the farms Balerno and Schroda.

Three rock art sites have been excavated and the deposits provide detailed information on the sequence of events during the transition from the Stone Age to the Iron Age. The excavated sites are Little Muck and Balerno shelters in the MCL and Salt Pan Shelter about 100 km to the south in the Soutpansberg, outside of the proposed MCL. Additional detail about the transition can be inferred from the rock art.

Little Muck Shelter (Hall & Smith 2000), with occupation deposits about 1 m thick, provides the most complete sequence from which to gauge the nature and tempo of the process of change from foraging to agriculture in the MCL. Like Salt Pan Shelter, Balerno and sites on the Botswana side of the Limpopo, the first occupation was in the period just prior to the introduction of pottery about 2000 years ago. Activity intensified thereafter because the foragers established an interactive relationship with their agriculturist neighbours at Leokwe Hill (in the case of Little Muck). A similar symbiosis has been recorded between foragers and early Iron Age communities further south in the Soutpansberg at Salt Pan Shelter and in the Waterberg (Van der Ryst 1998).

When compared with the pre-ceramic deposits at the base of the Little Muck sequence that are dated by inference to pre-250 AD, the deposits associated with the earliest Happy Rest/Bambata pottery have higher numbers of stone scrapers. These stone tools were used for preparation of hides. This suggests to Hall and Smith (2000:34) that the foragers were preparing hides for exchange with agriculturists. In the overlying deposit with Leokwe-Zhizo pottery that dates between 1000 and 1100 AD, this activity was further intensified. In contrast, in the uppermost layers associated with K2 and Mapungubwe pottery, dating between 1100 and 1300 AD, formal stone tools, worked bone, shell and ochre are either absent or occur in very small quantities.

The interpretation is that these uppermost layers that post-date 1050 AD, and include glass beads, iron artefacts and K2 and Mapungubwe period pottery, were the result of occupation of the shelter not by the Later Stone Age foragers, but by people from the agriculturist community that was established by that time at nearby Leokwe Hill. After that time, foragers became excluded from barter and craft exchanges and their sites were appropriated by farmers. This appropriation is further emphasised by the presence of fourteen gaming 'boards' that were carved into the sandstone in front of Little Muck Shelter (Photo 19). These 'boards' are often found associated with Zhizo and Leopard's Kopje sites. In the recent past, they have been made and used exclusively by men in Shona, Venda, Shangaan and Tsonga-speaking communities. It is likely that this tradition has been a common

practice for a long time. Schmidt (1995) makes reference to the fact that some Khoekhoe peoples believed that this “cloud game” or “African chess” was placed on the rock by their god, Heiseb, and was mystically linked to rain.

Although the rock paintings at Little Muck Shelter cannot be directly dated, the absence of ochre in the uppermost deposits is strong circumstantial evidence that the paintings were done prior to about 1050 AD when the site was taken over by Iron Age farmers.

Three traditions of rock painting have been identified in the MCL, Limpopo-Shashe Confluence Area and surrounding Soutpansberg region.

1. The majority of the paintings are in the **earliest tradition** of finely detailed images that reflect beliefs and cosmology common to the San diaspora of the past five thousand years or more. Most are in red ochre, with some in black and white. Eastwood’s (2001:25) survey shows that human figures are more common than any other category (45.7%), followed by animals (42.3%), items of clothing such as loin cloths and aprons (8.8%), and lines, dots, nets, animal spoor and therianthropes (3.2%). The analysis of human figures in the rock paintings shows that those of uncertain gender were the most common (48%), followed by women (28%) and men (24%). This is unusual in the southern African context as images of men usually predominate. Another unusual feature in the rock art that is also related to gender, is the high incidence of paintings of women’s leather aprons (Photo 18) with smaller numbers of paintings that probably represent loin cloths worn by men. In the animal category, indeterminate animals were most common, followed by kudu, giraffe, elephant, impala, tsessebe, fish, eland, ostrich, locust, rhinoceros, fat-tailed sheep and other animals of lesser significance. The paintings of domesticated fat-tailed sheep can be dated because they were introduced by herders and immigrant farmers in the first millennium AD. As the sheep are in the same style as the more conventional San paintings, they were probably done by the hunter-gatherers rather than the herders.
 2. Mostly overlying the San tradition images, but sometimes underlying them, are **geometric paintings**. The paint, in red, orange and white, was applied with a finger. Paintings in this tradition are less common than those of the San, but are distributed throughout the region. There is no clear evidence of who the artists were, but they are generally thought to have been herders with sheep who moved through the region briefly between the time of the first establishment of Iron Age agriculturalist communities and about AD 900. Similar geometric paintings and engravings are found in other regions of Southern Africa as well. They may be the work of Khoe-speaking herders, related to the San, who acquired sheep and, later, cattle from Iron Age farmers. They moved southwards into the western half of what is now South Africa about 2000 years ago. Apart from the rock art there is as yet no other archaeological trace known of Khoekhoe presence in the MCL.
 3. Overlying the earlier rock art traditions are what have been called **‘late white’ paintings**. They are typical of those done by Bantu-speaking people in east, central and southern Africa, and more specifically by ancestors of the modern Sotho-Tswana cultural group. They are considered to date to the period after 1300 AD (Hall & Smith 2000:39) and are further evidence for the appropriation of places that had previously been used by others.
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The rock art, particularly that done in the San tradition, together with the archaeological evidence from Little Muck Shelter, provides a valuable commentary by the indigenous people themselves on the historical process in the MCL in the first millennium AD. In general terms, the process culminated in the appropriation by herders and farmers of places that had been used exclusively by hunter-gatherer-foragers. It led to the disappearance (and/or assimilation) of the San and ultimately to the rise of social stratification and attendant cultural and economic development at Mapungubwe. More specifically, the covering of San art by the art of herders and farmers symbolically cut off the power of the older images of the spirit world and the religious beliefs that generated them. In this context, argue Hall & Smith (2000:43), San paintings of sheep “may represent a San attempt to neutralise or overcome the power of the herders; certainly they symbolise the extent to which the new herder population threatened San life.”

The distribution map of rock art sites (Figure 7) illustrates, too, that from the first millennium AD, Iron Age people were occupying much the same landscape as the hunter-gatherers. The absence of San paintings of images that could be linked to the Mapungubwe period is further evidence that the power and presence of the hunter-gatherers had been changed radically by early in the second millennium. Historical records, however, relate that people of mixed San and Sotho descent were living in the wider area in the nineteenth century and that they were engaged in rainmaking, a practice that was carried on by San people in many parts of Southern Africa. The assimilation of hunter-gatherers into the dominant economy of the farmers was therefore a long and complex process.

iv. Phase 1: the Zhizo Period

By AD 900, communities recognised archaeologically by their characteristic Zhizo-style pottery had established themselves in the Mapungubwe Cultural Landscape and in south-west Zimbabwe and parts of eastern Botswana. Zhizo is named after the site in Zimbabwe where this pottery was first described (Robinson 1960, 1966; Huffman 1974). There are 23 recorded Zhizo sites in the MCL (Figure 5). By this time, the climate had improved with more reliable rainfall for crops after a 200-year period of cooler temperatures and persistent drought. Later Stone Age communities had either moved away or assimilated with the farmers, possibly intermarrying and assisting them with rain-making. Herders seem to have moved southwards, and trade – initially with ivory and hides in exchange for glass beads and possibly woven cloth – had begun with people along the east coast.

Excavated sites with characteristic Zhizo pottery have calibrated radiocarbon dates within the time range from 790-1020 in Zimbabwe, the Limpopo Valley (including the MCL) and adjacent regions of Botswana (Vogel 2000). The pots have bands of oblique incision and comb-stamping on the lower rim, stamped triangles on the upper shoulder, followed by a horizontal line of stamping (Huffman 2000). Excavations at Pont Drift (Hanisch 1980) show that the Zhizo pottery decoration motifs persisted in the region for about 200 years and were replaced around 1000 AD by what has been called K2 or Leopard’s Kopje.

The largest Zhizo site thus far excavated is on the farm Schroda, immediately east of the farm Greefswald on the eastern side of the MCL core area (22.11.29 South, 29.25.45 East). It is situated on top of a rocky plateau overlooking the Limpopo Valley to the north (Hanisch 1981). The site, about 500 x 300 m in extent, is a Central Cattle Pattern complex that consists of middens and fragments of gravel house floors that built up over a period of

about 100 years from 900 AD. A series of natural rock outcrops have been interfilled with deposit giving the impression of natural terraces.

The landscapes selected by Zhizo people for settlement tend to be set back from the Limpopo River, like Schroda. As they were the first pioneer farmers to entrench themselves in this environment, it is likely that they had to overcome a number of obstacles before they could farm successfully. These obstacles would have included damage to their crops by elephants and hippo, flooding along the river, and woodland that had to be cleared for crops and villages. The successful utilisation of the natural resources required sustained social organisation so that the people could generate enough food for the growing population. Trade and agriculture therefore went hand-in-hand at this time and farming practices were focused on the cultivation of crops as well as on herding cattle, sheep and goats.

Schroda is significant for the history of the MCL because of its size and its midden contents, because it is the earliest site in the Limpopo Valley with exotic glass beads and a large amount of worked ivory, and because it yielded an extraordinary cache of ceramic (baked clay) figurines. The implications of these characteristics are:

- **Size:** Judging from the size of the site at Schroda, which is at present the largest known Zhizo site in Southern Africa, it is estimated to have housed between 300 and 500 people. This in turn implies a level of political power that is not evident at any other sites in the MCL at this time. From information currently available, there are twenty-five smaller Zhizo sites within a 40km radius of Schroda on both sides of the Limpopo and the Shashe. The system of political hierarchy in place at that time implies that a chief would have been resident at the Schroda capital, with lesser leaders such as headmen in charge of the smaller settlements.
 - **Middens:** Ashy middens with refuse consisting of broken potsherds and food remains were found throughout the site. A large quantity of faunal remains – in excess of 140 000 bone fragments - was examined, of which just over 19 000 bones were identifiable. They represented 263 sheep/goats, 201 cattle, 6 dogs, two species of fish and 701 individuals from 52 species of mainly small, non-domesticated animals (Voigt 1983). This is one of the larger samples of identifiable faunal remains from any site in the MCL (Plug 2000). The remains indicate that the primary source of meat was sheep, goats and cattle (in that order), supplemented by game, fish from the river. The staple food was cultivated sorghum.
 - **Pottery:** Over 100 000 potsherds were recovered from the excavations at Schroda. The decorative motifs and shapes were essentially similar to Zhizo ware first described in Zimbabwe, but the majority were bowls rather than pots, and black and red wares were rare.
 - **Glass beads** were found in sufficient quantity (664) (Wood 2000) to suggest that they were the result of direct trade with the east coast (Huffman 2000). Although similar beads have been recovered from Chibuene on the Mozambique coast, (Sinclair 1982), their ultimate origins are unknown (Wood 2000:87). They are comparable with beads of similar antiquity from several Zhizo sites in south-eastern Zimbabwe, including Makuru and Zhizo Hill.. This, and the presence of cowrie shells, implies that Schroda was already part of a regional trade network.
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- **Worked ivory** indicates a surplus over immediate needs, with the implication that this surplus was used as an item of exchange in trade with the east coast.
- **Clay figurines:** Clay figurines were found in small numbers throughout the site, but nearly 2000 fragments were recovered in one small area. The evidence suggests that the figurines – of animals, humans and combinations of both – were used there in a special ritual and were broken prior to burial. Distinct clusters of figurines of mainly domesticated animals usually associated with male initiation were found on one side of this special area, and on the other side were mainly larger figurines of mythical wild animals usually associated with female initiation in ritual practices amongst early twentieth century Venda (Hanisch 1981). The most common form is a stylised bird, followed by human-like figures and animals of various kinds, both wild and domesticated. The large quantity and sophistication of the figurines implies rites-of-passage ceremonies controlled by the chief that included young women and men from settlements beyond Schroda itself. Huffman (2000:17) notes this as evidence of Schroda's chiefly status.
- **Metal working:** Fragments of copper and iron were recovered from middens, in addition to small pieces of tuyère and slag, probably relating to copper and iron forging on a small scale.

Taken together, the information gathered from the excavations at Schroda and the distribution of other Zhizo sites indicates that a hierarchy related to growing political power and the unequal distribution of wealth had begun to form in the region, but the Central Cattle Pattern still dominated. Men and cattle and associated activities were placed in the centre of the settlement together with the court of the chief. This was surrounded by houses where the women lived. The senior leader was able to accumulate wealth in the form of cattle by imposing death dues, court fines, forfeits, tributes, raids and a high bride-price for his daughters (Huffman 2000:17). As a result, he had more wives, followers, court officials and associated houses in his settlement than the headmen in surrounding settlements who paid tribute to him and did not accumulate tribute themselves.

Judging from the large number of glass beads and cowrie shells, and from the quantity of ivory worked at Schroda, the chief was already engaged in direct trade with the east coast and the Indian Ocean network. According to Arab documents quoted by Huffman (Burke 1962; Freeman-Grenville 1975; Huffman 2000:19), Swahili traders reported finding new ivory sources in the Sofala-Bazaruto area of present-day Mozambique in the 9th century AD. Some of the early coastal trading stations have been found (Sinclair 1982). At the other end of the trade network, sites in the Waterberg to the south and in Botswana to the west that were occupied contemporaneously with Schroda and have related pottery styles, and have the same kind of glass beads as those from Schroda, but in much smaller quantities. As Schroda is the only likely source for these beads (Huffman 2000:20), its influence was wider than the MCL and buffer zone.

After about a century, Schroda was abandoned. In its place, a new capital was established and a new pottery style was introduced by an immigrant group. Schroda's chief probably left with the majority of his people. One of the successors to Zhizo pottery is found at Toutswe in Botswana, suggesting that Schroda people moved westwards as a result of this takeover.

v. **Phase 2: The Leopard's Kopje / K2 Period**

The K2 phase in the MCL dates from about AD 1020-1220 (Huffman 2000). Of the 89 sites in the MCL where Leopard's Kopje / K2 pottery has been recorded, only a few (e.g. Hanisch 1980), were occupied previously by Zhizo people. This indicates that there was little or no continuity between the two periods and in a detailed regional study of pottery by Huffman (1984) he has concluded that Zhizo and Leopard's Kopje had separate origins. The implication is that a new group of people – believed to be the ancestors of the present-day Shona - moved into the area and usurped the power of the chief at Schroda around AD 1000. They then established a capital about 7 km to the south-west at the site known as K2 on the farm Greefswald.

- **K2 Midden.** A huge midden complex on the farm Greefswald dominates the landscape and shows the location of the capital that replaced Schroda as the largest settlement during the K2 period. The site was called K2 by Gardner when he excavated there in the 1930s. He had excavated in Egypt where a midden was called a '*kom*' and he used the same word for this one as a matter of convenience. The word has no local significance. Calibrated radiocarbon dates at K2 have a fairly tight range between AD 1000 and 1220 (Meyer 1998; Vogel 2000).

The deposits at K2 cover an area of about 5 ha (Figure 12) and consist not only of settlement debris and refuse, but also of ash and of weathered manure in the central cattle kraal. Huffman (2000) estimates that between 1000 and 2000 people lived there. The midden complex is at least 100 m long and up to 6 m deep. Analysis of the spatial distribution of the remains indicates that the site began with a central cattle kraal surrounded by pole and daga houses and grain bins as would be expected in a settlement laid out according to the Central Cattle Pattern. The cattle were later moved elsewhere, partly because their value changed when beads and cloth replaced them as status symbols. The debris that then accumulated in the kraal probably relates to an increase in the number of court cases heard by the chief and his councillors as their power grew. The court is traditionally placed adjacent to the kraal and African hospitality ensures that visitors must be given sufficient food and drink during their stay. Excavations away from the central kraal have shown burnt pole and daga houses and mudstone gravel floors with associated smaller middens in homestead areas to the east, west, north and south, and on the slope of Bambandyanalo Hill. A midden on the eastern side, labelled K1, is another dump area related to K2 (Meyer 1998).

The midden at K2 gives the first evidence of substantial impact on the natural landscape. In addition to the physical presence of the remains of the settlement there and at contemporary sites in the valley, there was a considerable impact on the natural vegetation caused by clearing of land for crops, dumping of refuse, burning of old houses and house floors and vitrification of burnt dung in cattle kraals. The samples of vitrified cattle dung from K2 sites that have been analysed by palynologist Louis Scott do not include mopane tree pollen. As the dung includes only grass pollen, this indicates that the ubiquitous mopane and all other trees had been cleared from some of the sites before the establishment of the settlement. This implies that by K2 times ivory hunting had been so successful that elephants were no longer a serious threat to large agricultural fields that were widespread on the flat lands between the hills where they could take advantage of the seasonal flooding of tributaries and the replenishment of

silt. Even today, the middens and kraals are easily identifiable because little vegetation is established on them

- **Subsistence.** All the middens at K2 show that the farming community established there was settled and successful. Burnt seeds of domesticated crops indicate that sorghum, beans and millet were grown nearby. The products were stored in small pole and daga grain bins (Eloff & Meyer 1981). Analysis of nearly 50 000 bone fragments (Voigt 1983) showed a pattern similar to Schroda with 3 dogs, 226 cattle and 290 sheep/goats, together with the remains of 45 species of wild animals, mostly caught in snares, as well as birds and a few fish.
 - **Pottery.** The sophisticated K2 Vessel Series described by Meyer (1998; see also Schofield 1937; Gardner 1963) consists of spherical pots with short necks and mostly incised decoration motifs; hemi-spherical open bowls; spherical bowls with restricted openings, often combined with spouts; deep beaker-shaped bowls with incised decoration and beakers with incised decoration.
 - **Clay figurines.** Baked clay figurines were recovered from the K2 midden, including whistles. Most common are elongated human figurines with stumpy heads, arms and legs, and cattle, sheep and goats (Meyer 1998).
 - **Metal.** Small quantities of iron and copper ore and slag show that metal working took place nearby. The metal workers would have had to travel far to obtain the ore and probably brought in partly processed copper ingots and iron as there is no evidence there for smelting. Iron, associated with men, was traditionally worked outside settlements, whereas copper was associated with women and was worked inside settlements, with smithing done in the centre. Artefacts include arrowheads, spearheads, hoe blades, beads, bangles and wire (Meyer 1998; Calabrese 2000).
 - **Shell.** Cowrie shells from the east coast were found, in addition to beads made of ostrich eggshell, snail and freshwater mussel shell.
 - **Bone and ivory artefacts.** Bone needles and awls (Photo 25) and a large number of ivory bangles and armbands (Photo 24) as well as the debris from ivory working are further evidence of items made for trade.
 - **Burials.** The 94 human skeletons, of which 76 were juveniles, came from graves among the houses next to the central cattle kraal at K2 and from the midden which later covered it. Isolated human remains outside of formal graves were also recovered within the midden, as were so-called beast burials in which cattle bones were ritually buried in pots. K2 burials were sometimes associated with large quantities of beads and other grave goods. Some of the burials at K2 date to the later Mapungubwe period indicating that the midden was still used as a burial ground after the K2 settlement was abandoned. Twentieth century ethnography gives some insight into the burial tradition. In most cases people were buried beneath their houses. However, it was necessary to 'cool' certain individuals who had died 'hot' deaths, in which case the grave was placed in the ash of a midden because ash was regarded as 'cool'. This was done most often for children (Huffman 1986a, b).
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- **Glass beads.** Over 6500 glass beads have been recovered from deposits dating to the main occupation of the settlement and midden at K2 (Wood 2000) confirming that trade with the east coast had increased substantially. Horton (1996:329) has estimated that there was a mass introduction of glass beads on the east coast dating from c. AD 1050. The K2 beads would fall within this time period.

The most characteristic of the beads from the K2 period are small transparent to translucent drawn glass beads that range from turquoise to blue-green and green-blue in colour. They are related in colour and opacity, but not in size, to larger beads that are found in a number of sites on the East African coast. Wood (2000:87) concludes that these smaller beads, which are of unknown origin, were probably preferred by the people who lived at K2 as they were more suitable for beadwork panels than the larger beads found on the coast. If this is the case, it gives a useful starting date in this part of the sub-continent for the practice of beadwork that continues to be a characteristic of Southern African craft today. Some of the drawn beads are of Indo-Pacific origin and probably derived from south-eastern India (Wood 2000), demonstrating the geographical range of the trade network of the time.

- **Garden Rollers.** Of special interest amongst the beads from K2 are the so-called Garden Rollers (Photo 32). Nearly 300 were found at K2, representing the largest collection in the region. They are usually barrel-shaped and turquoise to blue-green in colour and have been found in association with broken, finely-made pottery moulds. Davison (1973) demonstrated that the chemical composition of the Garden Rollers and the small imported beads is the same. They were therefore made on the site in individual moulds from glass melted down from the imported beads (Gardner 1963; Wood 2000). The technology is not only unique to the Mapungubwe Cultural Landscape, but it is one of the earliest instances of glass reworking in Africa south of the Sahara. Garden Rollers were made at other K2 sites as well and were widely traded within the Shashe/Limpopo region. They have also been found in small quantities at sites in Botswana, Zimbabwe and Zambia (Wood 2000).

Moving of the cattle kraal away from the centre of the settlement at about AD 1100 reflects a deliberate shift in the principles governing the settlement layout of K2. As the kraal was not re-established next to the court at Mapungubwe, Huffman (2000:21) interprets this as indicating new restricted ownership of cattle and a change in the function of the court from a place for all men, to a place for commoners. This is therefore the first indication of a major change away from the Central Cattle Pattern that developed further when K2 was abandoned and Mapungubwe became the regional capital.

Other K2 phase sites that have been excavated in the MCL are Den Staat, Pont Drift, Leokwe Hill and others on the farm Little Muck about 13 km west of Mapungubwe. Excavations at Leokwe Hill were conducted on the western hilltop (Area A) and on the north-eastern terrace (Area B). Calibrated radiocarbon dates for the hilltop site range from AD 1160 to 1215. For house posts from the terrace site the range is between AD 1180 to 1215, and for a midden on the terrace to between AD 1050 and 1150 (Vogel & Calabrese 2000).

The Leokwe-Zhizo pottery from the terrace site is not K2/Leopard's Kopje, but is derived from Zhizo (Vogel & Calabrese 2000). It is contemporary with the Zhizo-derived site of

Toutswe in eastern Botswana, but is much later than the Zhizo phase itself. The pottery from the hilltop site belongs to the K2 phase. It has therefore been suggested that the people at Leokwe Hill represent some of the people who stayed behind when the Shona-speaking Leopard's Kopje people settled at K2 (Huffman 2000).

It is possible that Leopard's Kopje/K2 elite inhabited the high status area on the hilltop with Zhizo commoners below, but it is also possible that the two sites were not occupied simultaneously. Calabrese (Vogel & Calabrese 2000) interprets it as reflecting a more complex regional sociopolitical system than a simple replacement of Zhizo with Leopard's Kopje and one that incorporated some Zhizo elements.

A third scenario is that the Zhizo people who remained may have formed a reciprocal relationship with the new immigrants while still maintaining their cultural identity as expressed in their pottery. Huffman (pers. comm.) suggests they could have maintained this identity as healers and rainmakers. With an older link to the landscape than the immigrants had, they would have been ritually closer to the spirits that control rain and healing. Current research projects are aimed at trying to distinguish between rainmaking and residential debris at both rainmaking hills and commoner sites near Leokwe Hill and on Rhodes Drift.

vi. Phase 3: The Mapungubwe Period

Apart from success in trade and agriculture, the substantial increase in population density between the K2 and Mapungubwe phases was a critical factor in the development of a class structure and of Mapungubwe as a capital and a site of sacred leadership. This is reflected in the number of sites in phase 3 compared with phase 1. There are 39 recorded Mapungubwe period sites thus far in and around the MCL, about 20 on the Zimbabwe side of the Limpopo and a further 5 in Botswana (Huffman, pers. comm.; Figure 6). There is a hierarchy amongst these sites (Huffman 2000:22) with five administrative levels within a radius of 100 km of Mapungubwe. At the upper end of the scale, Mapela Hill in Zimbabwe is a large elite settlement; at the next level there are hilltop settlements at Little Muck A and Mmamagwe in Botswana; and the lowest two levels are commoner settlements. These smaller settlements are located on open terraces and do not include hilltop components. As the separation of commoners and elite was not present there, the Central Cattle Pattern continued to prevail. The commoner sites are recognisable by the characteristic Mapungubwe pottery and a relatively narrow range of radiocarbon dates between about AD 1250 and 1300 (Huffman 2000). The significant features of the Mapungubwe culture are detailed below.

- **Town planning.** The settlement, town, or metropolis at Mapungubwe, situated 2.5 km south-east of the Limpopo/Shashe confluence, is several times larger than Mapela Hill so was clearly the regional capital and controlled an area of about 30 000 sq km. This is comparable with the size of the Zulu Kingdom in the 19th century and as it pre-dates this kingdom by several centuries, Mapungubwe can be regarded as the first state in Southern Africa. In the 80 homesteads associated with Mapungubwe pottery that have been recorded within 40 km of Mapungubwe, it is estimated that there were about 9000 people paying allegiance to the senior leader. This was a five-fold increase in population from the beginning of occupation at Schroda (Huffman 2000).
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At the end of the period of occupation of K2, the commoner population moved to the southern terrace and to plateaus to the east of Mapungubwe Hill, about a kilometre to the north-east of K2. A smaller elite group occupied the hilltop. Together the terrace, plateaus and the hill cover an area of about 10 ha and it is estimated that between 3000 and 5000 people lived there (Huffman 1996:185).

The southern terrace consists of up to 5 m of accumulated midden and occupation deposits, the result of considerable activity during the 60 or 70 years of occupation. The sandstone-capped hill has vertical cliffs around the summit which is 30 m high and 300 m long.

As inadequate records were kept before and during the excavations on Mapungubwe Hill in the 1930s, it is not possible to reconstruct the settlement with any accuracy. There are nevertheless some parallels with Venda and Shona settlements that enable a tentative interpretation of some of the key features to be made (Figure 11). Remains of a special building complex, probably a palace, have been found in the centre of the hilltop demarcated by an arc of prestige revetment walls. In front of it were several houses and stone gaming boards suggesting that this is where the king's male retinue of soldiers, praisers and musicians lived (Huffman 1996:182). This part of the royal complex was connected to the court on the southern terrace below by a steep and narrow rock passageway that used to have wooden steps set into holes in the rock. On the other side of the hill, away from the lower court, was a second passage-way that led to a cluster of houses at the top where the king was established by AD 1250. The only grindstone found on the hilltop was recovered here. As grindstones are used by women, this was possibly the entrance used by some royal wives or the king's ritual sister. The two passage-ways leading to different activity areas parallel the status and gender divisions of the hill at Great Zimbabwe, Khami and other similar sites (Huffman 1996:183).

In the Central Cattle Pattern, the rain-making area where ritual rain pots are kept is traditionally upslope and behind the residence of the chief who is responsible for organising the rain-making ceremonies. On Mapungubwe Hill there is an area with large numbers of potsherds near a group of broken boulders on the highest point behind the palace and this was probably the place where rain-making rituals took place. Another access route probably served this ritual area. It is on the eastern end of the hill and goes past a few short walls that designate the 'eye' of the king (Huffman 1996:184).

Although insufficient evidence remains to fully reconstruct the layout and structures on and below Mapungubwe Hill, recent ethnographies and oral histories have provided enough pointers to enable the tangible elements that remain to be 'read' and understood as a cultural landscape.

- **Use and modification of Mapungubwe Hill.** The earliest use of Mapungubwe Hill by Iron Age people was during the Early Iron Age. Small quantities of Happy Rest pottery found on the hilltop suggest the hill was used for rain-making. At the base of the Hill K2 pottery and burnt house remains indicate that the site was initially occupied at the same time as K2 (AD 1000-1220), but the main occupation was during the Mapungubwe period between AD 1220 and 1290.
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Unlike similar hills in the vicinity, the top of Mapungubwe Hill has up to 2 m of midden and occupation deposits (Photos 7 and 8). The soil that makes up these deposits could not have accumulated naturally on the hilltop. The deposits have been greatly disturbed, initially by uncontrolled excavations in the 1930s that removed the graves and associated grave goods, and later by controlled excavations, and this has destroyed some of the evidence. However, it is clear that large quantities of soil must have been carried to the summit from the surrounding plain to provide clay for house walls and floors and soil for a solid foundation for houses and graves. Stone, apparently carried from the hill slopes, has been used for low free-standing walls and for terrace walling. There are no obvious source pits from which soil could have been dug, perhaps because it was taken over an extended period as the need arose and not all at one time.

Occupation of the combined terrace and hilltop settlement dates from AD 1220 to 1300 (Meyer 1998; Vogel 2000). At the end of this period almost all Mapungubwe sites were abandoned as climatic conditions deteriorated and there was insufficient rainfall to sustain such a large population. Intensive agriculture that is scheduled according to predictable seasonal changes is a prerequisite for providing a sustainable food supply and research into the details of this scheduling is ongoing (Huffman pers. comm.). The location of Great Zimbabwe in an area of higher rainfall was critical for its success in becoming the next regional capital.

- **Separation of elite from commoners.** Evolution of the spatial organisation from Central Cattle Pattern to Zimbabwe Pattern was first evident when the central cattle kraal at K2 was abandoned between AD 1060 and 1100 and the cattle were moved outside of the settlement. The layout of the settlement at Mapungubwe was in two distinct areas: the commoners on the Southern Terrace at the foot of the hill and the elite rulers on the hilltop (Figure 11). The cattle remained outside the settlement after the move to Mapungubwe as there is no cattle dung anywhere in the vicinity of the southern terrace and the hill. The reason is that in the Mapungubwe social hierarchy, the royals owned all the cattle. As the court on the southern terrace was a place for commoners, no cattle could be kept there. This was in contrast to the Central Cattle Pattern in which cattle bound men together in and around the central cattle kraal. By AD 1250 a palace area on the hilltop separated the leader from his family and followers, and entrances to elite areas were demarcated with low stone walls (Fouché 1937; Gardner 1963; Huffman 2000).

This process of separation of the elite from the commoners was the result of accumulated wealth in an upper class of hereditary sacred leadership. The wealth was not only a direct result of greater productivity in cattle or agricultural products and a consequent rise in population, but of east coast trade that the K2 people had successfully exploited. Huffman (2000:25) suggests that so much wealth accumulated from the trade that the normal channels of distribution within the social hierarchy of the Central Cattle Pattern were inadequate and ruling families became an upper class.

- **Pottery.** A gradual change in ceramic style occurred soon after the move to Mapungubwe as a result of evolutionary changes rather than replacement of one population by another. Mapungubwe pottery is therefore a later phase in the Leopard's Kopje Tradition. More complex designs, a better surface finish and new types replaced the old ones, possibly because they were now made by full-time specialist potters who emerged as part of the developing class structure. Of particular interest are finds on
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Mapungubwe Hill in the 1930s and at the main entrance on the southern terrace in 1991 of three sherds of Chinese Celadon from a small, spherical vessel typical of a type made in China during the Sung Dynasty between AD 960 and 1279 (Meyer 1998:203).

- **Ceramic figurines and spindle whorls.** Baked clay figurines similar to those from K2 were also found at Mapungubwe, but in smaller numbers. They included cattle, stylised human figures, a giraffe and conical shapes with decorated bases (Photo 23). From about AD 1250, ceramic spindle whorls were made at Mapungubwe. They are strong evidence that cotton yarn was spun here, and may have been woven here too (Huffman 2000:11). The cotton plants *Gossypium herbaceum* and *Gossypium arboreum* and the technique of spinning were possibly introduced from India or Asia along with other trade items (Davison & Harries 1980). They were probably grown semi-wild behind homesteads as is done in rural communities today. Cotton clothing would have been an additional status symbol amongst the elite at Mapungubwe.
- **Glass beads.** If ever there was any doubt about the elite nature of the occupation of Mapungubwe Hill in comparison with the southern terrace, it would be dispelled by the enormous quantity of glass beads found on the hilltop, particularly associated with graves. More than 104 000 beads are in the collection from the hill, compared with less than 4 000 from the southern terrace (Wood 2000). In one hilltop grave (No. 14), the distribution and quantity of beads led Fouché (1937) to suggest that the body had been wearing bead garments or girdles. He also noted a cylindrical pile of beads 300 x 200 mm as though a bag of beads had been placed in the grave with the body. Just over 26 000 beads came from this burial, of which nearly 25 000 are black (Saitowitz 1996; Wood 2000). The difference in the quantity of glass beads from the hilltop and southern terrace may also be due to the placement of the excavations, however, as it is clear that commoners could have beads as well. The beads from Mapungubwe include a new series of small, uniform glass oblates of unknown origin and several large and decorated beads that may have originated in Egypt or some other Middle Eastern Islamic centre (Wood 2000).
- **Gold.** The finds from Mapungubwe that have caught the most public attention are the gold and gold objects recovered from graves during uncontrolled and poorly documented excavations on the hilltop between 1933 and 1935 (Meyer 1998; Photo 36). Although they are the oldest dated indigenous gold objects in Southern Africa, the gold trade in this region had been reported on the Sofalan coast of Mozambique as early as the 10th century and into the mid-12th century (Huffman 1998; Miller *et al.* 2000). The source of the gold was probably alluvial gold nuggets and gold extracted from crushed quartz from numerous gold-belts in surface quartz reefs in Zimbabwe. Some of these sources are along the Shashe River.

The gold at Mapungubwe was found in the form of foil, wire, bangles, strips, beads, coiled helix and pins, as well as a few globules and small discs. The foil was made by hammering globules into thin sheets on a stone anvil. It was then folded and smoothed and engraved over carved wooden forms such as the famous rhinoceros. Other foil-covered carvings found (all minus the original carved wooden core) included parts of two other rhinos, part of what may be a crocodile head, a mace and a bowl. The foil was fixed into position with gold tacks and some of these were also recovered (Fouche 1937; Meyer 1998). The goldsmiths at Mapungubwe were skilled in their craft,

although there was no evidence at the site for working the metal beyond melting and hammering.

The symbolic significance of the golden rhinoceros is intriguing, but only tantalisingly oblique oral traditions are of assistance. Meyer 1998:21). In Shona ethnography the black rhino, *Diceros bicornis*, is highly respected for its solitary lifestyle and fierce and aggressive behaviour. As these characteristics were admired in Zimbabwe rulers, the rhino is likely to have been a symbol of leadership (Huffman 1996:188-190).

- **Iron and copper working.** A few iron items were found at Mapungubwe, but most of the metal artefacts were made of copper and all the slag is copper. The artefacts included rods, arrowheads, spear blades, hoes, chisels, rings, an awl, spikes and coiled or wound bangles. The excavations at Mapungubwe yielded ten times the number of iron and copper artefacts than were recovered from K2 and a hundred times more than were found at any other site, such as Leokwe Hill. Remains of tuyeres were noted on Mapungubwe Hill by the early excavators and copper slag was also found (Fouché 1937; Gardner 1963), but they are more likely to have been associated with secondary forging than with primary smelting.

There is a discrepancy between the large number of metal items found at Schroda, K2 and Mapungubwe, and their rare occurrence at commoner sites of similar age. It is apparent that people of low status had restricted access to finished, non-utilitarian metal artefacts because there was a strong association between metallurgy, fertility and leadership. Non-utilitarian metal artefacts were therefore highly potent symbols which may have signified nearness to leaders and thus to the sources of fertility and power (Calabrese 2000:110).

- **Graves.** A total of 27 graves are reported to have been excavated on Mapungubwe Hill, but the remains and contents from only 12 are currently in the collection at the University of Pretoria Department of Anatomy (Steyn & Nienaber 2000). Most of the gold items were found with three of these elite graves confirming the high status of the individuals during life and emphasising again the difference between the hilltop elite and the commoners who lived on the terraces below, and between Mapungubwe and earlier phases when elite graves were placed in the cattle byre.

Burial 14 was that of a woman who had been interred in a sitting position facing west, an indication of high status in the Central Cattle Pattern even today. There were at least a hundred gold bangles around her ankles and over twelve thousand gold beads in the grave. In Burial 10 was a middle-aged man, also in a sitting position facing west. The grave goods included a necklace of gold beads and cowrie shells and some carvings covered in gold foil. One of these resembles the head of a crocodile. The position of the third burial with gold objects was not recorded by the excavators. The man had been buried with a headrest and three wooden carved objects covered with gold foil: the rhinoceros, the mace and the bowl (Huffman 1996:188). As noted above, the rhino is a symbol of leadership amongst some southern African communities and the association of the rhinoceros with an elite burial at Mapungubwe confirms that it had symbolic status even in the thirteenth century.

- **Bone and ivory artefacts.** Included in the deposits on the hilltop and southern terrace were large numbers of polished bone arrow points and linkshafts, some of which were
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decorated, and ivory armbands, rings and rough bone spoons. Voigt (1981) suggests that because large numbers of the polished bone arrow points and linkshafts were found in one place, they may have been made for trade by specialist bone tool makers. The presence both the arrowheads and linkshafts and of ivory armbands that were very likely used as wrist guards by archers, suggests that an elite guard may well have protected the king.

- **Middens.** Very extensive middens and occupation deposits built up on the southern, eastern and northern terraces below Mapungubwe Hill. A witness section through about 5 m of deposits on the southern terrace has been preserved and a portion of the trench has been left open. Layers of house floors, some of them burnt, are interspersed with midden refuse.

Analysis of the animal bones from the southern terrace and Mapungubwe Hill (Voigt 1983) confirms the observations at K2 and Schroda that the bulk of the meat eaten came from adult cattle, sheep and goats rather than from hunted wild animals, and fish made a negligible contribution to the diet. Bones of two kinds of domesticated dogs were also found.

In summary, there is abundant evidence from both Mapungubwe Hill and the southern terrace excavations to support the conclusion that between AD 1220 and 1290 powerful sacred leaders were established on top of the hill and were supported by a substantial commoner population below. This physical separation of classes in different parts of the landscape symbolised the social, religious and political hierarchy that developed when successful trade and agriculture made it economically feasible to sustain a large population. As the population grew, so did the manifestation of class distinction. Agriculture ceased to be sustainable when climatic change altered the rainfall regime after AD 1290 and people were forced to move away and consequently the power related to east coast trade shifted to Great Zimbabwe.

Although there may be few monumental structures to demonstrate how the inhabitants of the Mapungubwe Cultural Landscape changed the landscape, much can be gleaned from sensitive readings of the archaeological and ethnographic records:

- There is clear symbolism evident in the choice of sites to reflect social status, such as the placement of the commoner court at the base of the hill, the leader's entourage on the sides of the hill and the king and elite class on the top of the hill;
 - There is evidence of manipulation of natural features to reflect ritual practices, such as the routes up Mapungubwe hill and the accumulation of occupation deposits there;
 - The unprecedented wealth of the sacred leader at Mapungubwe is more than evident in the placement of elite graves and the quality of grave goods;
 - The farming practices and huge middens that resulted from sustained use of the landscape have changed the original contours of the land; and the vegetation changed because of human activity so that middens and kraal sites with vitrified dung remain largely bare of plant cover.
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c. Form and date of most recent records of property

The most recent records of the site are summarised as follows:

i. Research publications

- a. Summaries of research projects in the Limpopo Valley, edited by Mary Leslie and Tim Maggs, have been published in the South African Archaeological Society Goodwin Series, Vol. 8. December 2000, entitled *African Naissance: the Limpopo Valley 1000 years ago*. The individual papers are listed in the bibliography in Chapter 7c.
- b. A book on *The Archaeological sites of Greefswald: Stratigraphy and chronology of the sites and a history of investigations* has been published by Meyer (1998).
- c. An illustrated publication intended for the general public summarising the results of the University of Pretoria excavations on Greefswald was published by Meyer (1996).
- d. A comprehensive report on *The Rock Art of the Limpopo-Shashe Confluence Area* has been prepared for the World Heritage nomination dossier by Eastwood (2001) (see Appendices).
- e. The relationship between the Limpopo Valley sites and those in Zimbabwe is described in the book *Snakes and Crocodiles: power and symbolism in ancient Zimbabwe* by Huffman (1996).

ii. Unpublished Reports, Surveys and Pamphlets

- a. An initial scoping of the tourism potential of the Mapungubwe area was undertaken for the Mapungubwe Tourism Development Initiative (Norton et al. 2000). This included extensive community consultation.
 - b. Between 1995 and 1998, Archaeological Resources Management at the University of the Witwatersrand undertook a review for De Beers Consolidated Mines Ltd of the archaeology of precolonial farming societies in the Shashe-Limpopo Basin (Huffman 1999).
 - c. A programme to catalogue the Mapungubwe archive and collections at the University of Pretoria was begun in the mid-1990s. In 1997, the artefacts from the so-called gold burials on top of Mapungubwe Hill were declared a national cultural treasure and a full inventory with photographs of all the items was compiled by Professor Meyer.
 - d. In 1999, the University of Pretoria placed many of the objects on permanent display in their SASOL African Heritage Exhibition. An illustrated pamphlet was published. As part of this initiative, conservation work was undertaken on the gold objects by a professional conservator at the British Museum.
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- e. In 2000, some of the gold objects were loaned for an exhibition entitled *Musuku: Golden Links with our Past* at the South African National Gallery in Cape Town, sponsored by AngloGold. A colour catalogue was produced for the exhibition.
- f. A catalogue and analysis of the baked clay figurines from Schroda has been undertaken by Edwin Hanisch of the University of Venda and Dr J van Schalkwyk of the African Window Museum in Pretoria and is nearing completion. It will be published with illustrations when the collection is put on display at the museum in March 2002.
- g. SANParks have compiled a Draft Management Plan for the Vhembe Dongola National Park (Maphasa 2001).
- h. The Peace Parks Foundation has prepared a report on the *Current status of the properties in the proposed 'core area' of the Limpopo / Shashe Transfrontier Conservation Area* (Coetzee 2001).
- i. Professor V. Ralushai undertook an oral history project in the Mapungubwe Cultural Landscape and surrounding area to establish the nature and extent of cultural and genealogical links between present-day communities and the Mapungubwe period (Ralushai 2001).

d. Present state of conservation

Two sites within the MCL were declared national monuments under the National Monuments Act (Act No. 28 of 1969). The site known as K2 was declared on 9 September 1983 in Government Gazette Notice No. 1936, and Mapungubwe Hill and the adjacent southern terrace was declared on 17 August 1984 in Government Gazette Notice No. 1756. In terms of the same legislation, the collection of cultural artefacts associated with the settlements at Mapungubwe and K2 was declared a National Cultural Treasure on 10 October 1997 in Government Gazette Notice No. 1306.

On 1 April 2000, the National Monuments Act was replaced by the National Heritage Resources Act (Act No. 25 of 1999). All previously declared national monuments automatically became provincial heritage sites. Provincial heritage resources authorities must do an audit of heritage sites and recommend to the S A Heritage Resources Agency (SAHRA) which of these are of national significance. This process is underway in the Northern Province and it will be recommended to the SAHRA Council that the entire core area of the Mapungubwe Cultural Landscape – in effect the Vhembe-Dongola National Park - be declared a national heritage site.

In terms of the National Heritage Resources Act, all national heritage sites must have a management plan. A management plan is also a requirement for all sites nominated for world heritage status in terms of the South African World Heritage Convention Act. This management plan is being drafted for comment.

With the exception of farms that are not yet part of the contractual park, all cultural resources within the Vhembe-Dongola National Park that form the largest part of the core

area of the Mapungubwe Cultural Landscape, are managed by SANParks. Principles for a draft management plan were drawn up and circulated for comment in mid-2001.

i. Conservation of natural resources

A comprehensive management plan, based on the pro forma used in all national parks in South Africa, has been drafted (Maphasa 2001) and is being implemented in the Vhembe Dongola National Park. Management will extend to properties in a contractual relationship with .

ii. Trans-Frontier Conservation Area

During the early 1990s the idea of establishing Trans-Frontier Conservation Areas (TFCAs) was proposed. The proposed Limpopo-Shashe TFCA is 5,040 km² in extent, of which 2,671 km² (53%) is in South Africa, 1,411 km² (28%) is in Botswana, and 958 km² (19%) is in Zimbabwe (Figure 2). The TFCA is centered at the confluence of the Limpopo and Shashe Rivers. It is made up of a complex mosaic of land ownership, including privately owned land in Botswana (including the Northern Tuli Game Reserve and cattle/game ranches), land owned by the state, South African National Parks and private landowners in South Africa, and a mixture of communal lands, privately owned game farming operations and a government owned safari area in Zimbabwe.

In South Africa, after a long and often acrimonious debate dating back to 1944, an agreement that paved the way for the proclamation of a national park in the vicinity of the Limpopo–Shashe confluence was signed on 9 June 1995 between the central government, the Northern Province and the Board of SANParks. The Peace Parks Foundation has been involved in working with SANParks and with the private landowners to establish an agreed South African position on land ownership issues related to the proposed TFCA. The consolidation of the farms in this area will help create an essential corridor between two of the biggest conservation areas within the TFCA, namely the Northern Tuli Game Reserve (NOTUGRE) in Botswana and the Venetia Limpopo Nature Reserve in South Africa, which will provide a corridor for SANParks to link their eastern and western Dongola properties. Should the properties ultimately form part of the proposed transfrontier park, this coupled with the transfer of the farm Greeswald to the SANParks, will give them sufficient land to proclaim the Vhembe-Dongola National Park. Most of the private landowners on the Botswana side have indicated their willingness to participate in the TFCA, and they have the support of Botswana's Department of Wildlife and National Parks. Prospects appear equally encouraging in Zimbabwe. Both the privately owned farms Sentinel Ranch and Nottingham Estates are critical components of the Zimbabwe section of the TFCA. The government-owned Tuli Safari Circle in Zimbabwe was gazetted in 1963. Preliminary discussions in the term of planning meetings on the establishment of the TFCA between the three neighbouring countries has commenced in September 2000, but no formal agreements have been concluded, and no joint development plan exists. An International Agreement has been drafted and presented to the different representative conservation agencies for comment and reviewal. A full-time facilitator has been appointed to assist in the establishment of the TFCA.

e. Policies and programmes related to presentation and promotion of the property

A tourism and development study for the Mapungubwe area is presently in progress. This will provide a detailed Tourism Master Plan and Interpretation Plan, which will be submitted when they are available.

**MAPUNGUBWE
CULTURAL LANDSCAPE**

**Chapter 4
MANAGEMENT**

4. MANAGEMENT

The overall management of the Vhembe-Dongola National Park, and therefore of the Mapungubwe Cultural Landscape, is outlined in the Preliminary Park Management Plan (Maphasa 2001), which was drawn up in consultation with a representative stakeholder committee. This Plan outlines the main policies guiding the establishment and management of the Park. Operational details are to be found in the Annual Plan for the Park area.

When (and if) the Mapungubwe Cultural Landscape is inscribed on the list of World Heritage Sites, this Park Management Plan will be expanded to fulfil the role of an Integrated Management Plan, as contemplated in Chapter IV of the South African World Heritage Convention Act.

a. Ownership

The proposed boundaries of the Mapungubwe Cultural Landscape for World Heritage listing coincide with the proposed boundaries of the Vhembe-Dongola National Park. The Park is still in the process of formation, and only three properties have so far been gazetted in terms of the National Parks Act. A number of other properties have recently been purchased by organisations linked to SANParks, with the specific aim of being included in the Park on a contractual basis. In addition, negotiations are well-advanced for several properties owned by De Beers Consolidated Mines Ltd to become part of the park by contractual agreement. The other properties in the identified core area are still in private ownership, and negotiations with the landowners are on-going. Details of ownership, size and contact details are given in Table 4.1.

In order to simplify the management of the proposed World Heritage Site, and the application of the approved Park Management Plan, properties will only be declared under the South African World Heritage Convention Act as and when they are gazetted as National Park (either as full ownership or by contractual agreement). If all goes according to plan, all the properties proposed for the National Park will have been gazetted before the meeting where the Mapungubwe Cultural Landscape is finally considered for listing as a World Heritage Site. In the event that this does not happen, "in principle" approval for the whole area is sought, so that properties can be added administratively later, as soon as they are gazetted as national park.

Map 1 shows the following boundaries:

Category I: Properties already gazetted as National Park (as of December 2001)

Category II: Properties where there is a verbal or "in principle" agreement to form a contractual park.

Category III: Proposed eventual boundaries of the Mapungubwe Cultural Landscape World Heritage Site, which coincides with the proposed boundaries of the Vhembe-Dongola National Park.

An open meeting with existing landowners was held at Pont Drift on 17 November 2001 to explain the National and World Heritage Nomination processes, and management arrangements.

Table 4.1 Property ownership within the Mapungubwe Cultural Landscape

Farm	Farm No.	Ptn No.	Registered Owner(s)	Size (ha)	Contact Persons	TEL/FAX	Current Status
Pont Drift	12	0	Borganum A B	1044.3854	Ed Hannan	T 015 575 1364 F 015 575 1364	Only a portion within core area, negotiations ongoing
Modena	13	0	Modena Citrus Pty Ltd	213.6827	Burgert van Rooyen	015 345 1671	Entire property within core area, negotiations ongoing
Modena	13	1	Borganum A B	1031.3979	Ed Hannan	T015 575 1364 F 015 575 1364	Only a portion within core area, negotiations ongoing
Welton	16	3	National Parks Board (1/3) National Parks Trust (2/3)	708.0486	Bernard van Lente	015 534 0102	Contractual agreement to be put in place between NPT and SANParks
Tuscanen	17	0	WWF South Africa	867.919	Eugene Strydom	T 021 887 2801 F021 888 2888	Contractual agreement drafted and being finalised with SANParks
Tuscanen	17	1	Rudi Schmidt	867.919	Rudi Schmidt	015 5343327/ 3595	PPF secured option to purchase property in 2010
Balerno	18	0	Susanna Claudina de Beer (1/2)	1074.585	Denis Venter	012 807 3945	Only a portion within core area, negotiations ongoing
			Hendrika Petra Joubert (1/2)		Cobus Joubert	015 297 0716	Only a portion within core area, negotiations ongoing
Mona	19	0	Friends of Peace Parks	560.4003	Graham Main	T053 831 1854 F053 833 1421	Contractual agreement drafted and being finalised with SANParks
Armenia	20	0	Friends of Peace Parks	856.532			
Armenia	20	1	Friends of Peace Parks	69.3806			
Little Muck	26	0	Friends of Peace Parks	2147.6169			
Rhodes Drift	22	0	Peace Parks Foundation	865.0285	Stefan Coetzee	T021 887 6188 F021 887 6189	Contractual agreement drafted and being finalised with SANParks
Den Staat	27	0	SANParks	1842.1763	Bernard van Lente	015 534 0102	Farming to cease end 2001
Den Staat	27	1	George Peter Hodgson	1807.4551	George Hodgson	015 575 1435	Negotiation to purchase property ongoing
Samaria	28	0	Hendrik Daniel Heyns	431.9858	Hennie Heyns	015-5751390 031-5022222 082-9756100	Negotiation to purchase property ongoing
Samaria	28	3	Hendrik Daniel Heyns	431.9858			
Samaria	28	1	Gerard Michel Tomby Moerdyk	863.9716	Philip Swart Annemarie Friedrich	082-7831356 018-4623995	Negotiation ongoing
Samaria	28	2	Irma Leonora Vermeulen	863.9716			Negotiation ongoing

b., c. Legal status and protective measures.*i. Legal status of properties: National Parks Act*

The first three properties of the Vhembe-Dongola National Park have already been gazetted as “national park” in terms of the National Parks Act (No.57 of 1976 as amended) , as follows:-

- Den Staat on 9 April 1998 in Government Notice No.490 of 1998
- Greefswald on 7 April 2000 in Government Notice No.339 of 2000
- Reidel on 26 April 2001 in Government Notice No 355 of 2001.

The goal is either to purchase the properties outright, or to proclaim them as national park by contractual agreement with the landowners.

Properties proclaimed as national park enjoy the highest protection status in conservation legislation in South Africa, and are managed in terms of the National Parks Act.

ii. Legal status of properties: National Heritage Resources Act

The site known as K2 was declared a National Monument on 9 September 1983, and Mapungubwe and its southern terrace were declared on 17 August 1984, under the National Monuments Act (Act No. 28 of 1969). During 1997/8, the sites of Schroda and Little Muck (Leokwe Hill) were recommended to the Minister of Arts, Culture, Science and Technology for declaration as National Monuments. The declarations were not approved pending the new legislation.

When the National Monuments Act was superseded by the National Heritage Resources Act (Act No. 25 of 1999) on 1 April 2000, all national monuments became provincial heritage sites. These sites remain protected and may not be disturbed or altered without a permit from the South African Heritage Resources Agency (SAHRA), which is the statutory body responsible for implementing the National Heritage Resources Act. At the time of writing, the heritage resources authority responsible for the monitoring and management of provincial heritage sites is the provincial heritage resources authority of the Northern Province. This provincial authority has not yet been formally established and the work in the province is being done by the SAHRA Provincial Manager.

In view of the significance of the area within the Vhembe-Dongola National Park, it was recommended to the SAHRA Council in November 2001 that the entire core area of the Mapungubwe Cultural Landscape, which is the same as the proposed Vhembe-Dongola National Park, to be declared a National Heritage Site. At a Council Meeting on 28-29 November 2001 Mapungubwe and another site in the Northern Province, Makapans Valley, were the first sites in South Africa to be approved in principle for National Heritage Site status under the new legislation. The sites will now follow the approved process to formal proclamation in approximately six months time. When it becomes a national heritage site, the national office of SAHRA will be responsible for its protection.

In terms of the National Heritage Resources Act, there are several implications for places that are declared National Heritage Sites.

- Section 27 of the National Heritage Resources Act specifies that:
 - (4) a written motivation for the declaration must be prepared and kept on record by SAHRA;
 - (15) SAHRA is responsible for the protection of national heritage sites;
 - (18) No person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any national heritage site without a permit issued by SAHRA;
 - (19) SAHRA may make regulations, with the consent of the owner, to safeguard the site, to specify conditions of use and development, and to regulate the admission of the public, including fees.
 - (20) Any branch of the State or supported body which is the owner of a heritage site [in the case of Mapungubwe this would be SANParks] must maintain it according to a minimum standard and according to a procedure prescribed by SAHRA after consultation with the relevant Department of Works.
 - (21) SAHRA may, by agreement with the owner, conserve or improve any national heritage site, construct fences, walls or gates around it, acquire or construct and maintain an access road to a national heritage site, and erect signs on or near it.
 - (22) No person other than the owner of a national heritage site may make reproductions in two or three dimensions of the site for profit without a permit issued by SAHRA and the agreement of the owner. SAHRA may prescribe the fees payable for these reproduction rights and must deposit such fees in a trust fund dedicated to the conservation of the site or of heritage resources in general.

 - Section 38 of the National Heritage Resources Act allows SAHRA to call for a heritage impact assessment report if certain activities, such as road or bridge building, subdivision or consolidation of erven, or re-zoning are likely to impact on heritage resources. This is done only if an impact assessment is not required under any other law, such as the Environment Conservation Act (No. 73 of 1989) or the National Environmental Management Act (Act No. 107 of 1998).

 - Section 44(2) of the National Heritage Resources Act states that when any person plans to present a national heritage site to the public, or erect a plaque or other permanent display or structure associated with the presentation, the contents of the interpretive material or programmes must be submitted to SAHRA at least 60 days in advance so that SAHRA may comment as part of the consultative process,

 - In terms of Section 47(2), SAHRA is responsible for adopting a plan for the management of each national heritage site in accordance with the best principles that can be applied. In addition, sub-section (3) states that a conservation management plan may at the discretion of SAHRA and for a period not exceeding 10 years, be operated solely by SAHRA or in conjunction with an environmental or tourism authority on such terms as SAHRA may determine. In terms of Section 42, the responsibility for implementing such a management plan can be delegated to the owner of the property, or to another authority or conservation body, if a formal heritage agreement is drawn up between SAHRA and that body with the agreement of the owner. SANParks must therefore enter into a formal heritage agreement with SAHRA and with the Minister of Environmental Affairs and Tourism when drawing up a management plan for the Mapungubwe Cultural Landscape.
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- In addition, all heritage resources in the country are legally protected by the general provisions for archaeology and palaeontology under Section 35. No person may destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site, and no person may remove from its original position, collect, own or export, any archaeological or palaeontological material or object that has come from a site that is more than 100 years old, without a permit issued by SAHRA.

iii. Legal status of properties: World Heritage Conservation Act

The World Heritage Convention Act (Act No. 49 of 1999) provides for the enforcement and implementation of the World Heritage Convention in South Africa. It allows, *inter alia*, for the establishment of Authorities to safeguard the integrity of World Heritage Sites and for integrated management plans and other controls.

The Minister of Environmental Affairs and Tourism is responsible for implementing the Act, but must consult with the Minister of Arts, Culture, Science and Technology and with interested parties [such as SANParks and SAHRA] when establishing an Authority. An Authority is a juristic person with a Board that may be appointed by the Minister to manage a world heritage site if the Minister deems it necessary. An existing organ of state that is already managing the site may be declared an Authority. The Act specifies the powers and duties that may be given to such an Authority and its executive staff component.

Every Authority must prepare and implement an integrated management plan for the world heritage site under its control (Section 21). The plan must be submitted to the Minister for approval within six months of the establishment of an Authority. Approval of the plan must also be sought from the Minister of Arts, Culture, Science and Technology and the Council of SAHRA. The plan must be reviewed and amended as and when necessary. Provision is made for the Minister to prepare model integrated management plans and norms and standards in consultation with the Minister of Arts, Culture, Science and Technology.

An Authority is required to submit an annual report to the Minister that includes an assessment of the implementation of the management plan and information about the extent to which the Authority succeeded or failed to meet its obligations in terms of the World Heritage Convention, the Operational Guidelines and the World Heritage Convention Act.

iv. Legal status in terms of the Environment Conservation Act and the National Environmental Management Act

The Environment Conservation Act (Act No. 73 of 1989) enables the Minister of Environmental Affairs and Tourism to call for an environmental impact assessment if a development will have a significant impact on the natural and cultural environment. The Regulations and Guidelines for this legislation have had a significant impact and have increased public awareness of the need for environmental management. The legislation also has weaknesses, particularly with regard to monitoring of cumulative impacts. The National Environmental Management Act (Act No. 107 of 1998), which will come into force when the Regulations for integrated environmental management are published in 2002, overcomes most of the problems and makes environmental impact assessments mandatory. Any development on, or rezoning of, properties within the Mapungubwe Cultural Landscape and the Vhembe-Dongola National Park will therefore require an

independent integrated environmental assessment before the development can take place. This will include an assessment of cultural heritage sites that may be affected.

v. Summary

All four Acts require a management plan for a world heritage site, and provide for consultation with other relevant Ministers and statutory bodies during the preparation, implementation and monitoring of the plan. It is the intention that the Park Management Plan be formulated in such a way that it fulfils the requirements of all of the Acts, and can therefore be declared as the approved management plan under each Act.

There is also legislation in place, and legislation that will come into force soon, to ensure that an impact assessment will be done before any developments take place within the Vhembe-Dongola National Park.

Note that, until the properties are declared in terms of the National Heritage Resources Act, the World Heritage Convention Act or the National Parks Act, the properties are protected under provincial conservation legislation, and changes to land use are regulated under the Environmental Conservation Act and the Water Act.

d. Agencies with management authority

SANParks will automatically be the management authority for proclaimed National Park properties, and it is the intention that SANParks will also be appointed as the management authority for the National Heritage Site and the World Heritage Site in terms of the two acts. In practice, management authority will be as follows:

- On SANParks property it will be the sole management authority, with reporting responsibilities according to the National Heritage Resources Act and the World Heritage Convention Act.
- On Contractual National Park properties management will take place according to the contractual agreement with the landowner. In practice SANParks will carry out most of the day-to-day management functions.

e. Level at which management is exercised and responsible person

Park Manager, Mr Bernard van Lente, Vhembe-Dongola National Park, P O Box 383, Messina 0900. Tel/fax 015 534 0102, e-mail bernardv@limpopo.co.za

f. Agreed plans related to property

- The core property, Greefswald, is managed under a signed agreement between the Premier of the Northern Province and the National Minister of Environmental Affairs and Tourism.
 - The Preliminary Park Management Plan has been approved by the Representative Stakeholder Committee.
 - A preliminary tourism evaluation entitled An Overview of Tourism Development Potential in the Mapungubwe Area was accepted at a stakeholder Workshop in
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November 2000, but this is now being followed up by a more detailed Tourism Master Plan, which is not yet complete.

- Tourism development in the Northern Province takes place within the “Golden Horseshoe Macro Spatial Development Concept”, which has been accepted by the Northern Province Government.
- A Tri-lateral Memorandum Of Understanding to set the basis for the establishment of the Limpopo-Shashe Transfrontier Conservation Area is due to be signed soon.
- The local authorities throughout South Africa have been newly delineated, and all district councils are obliged to prepare Integrated Development Plans early in 2002. However, these have not yet been completed or accepted.
- The Environmental Impact Assessment and Environmental Management Plan for the Venetia Mine development has been approved by the Northern Province Department of Environment.

g. Sources and levels of finance

- The property receives an annual operating budget from SANParks, as part of the overall SANParks budget. For the 2000/01 financial year the total operating budget is R1,16m (US\$116 000 at an exchange rate of R10.0 = \$1.0), including R662 000 for human resources. There is also a R165 000 capital budget for smaller capital improvements.
- Development planning of the area is being conducted with funds from the National Government managed by the Dept of Environmental Affairs and Tourism.
- Site rehabilitation measures are being funded through the Poverty Alleviation Programme administered by the Dept of Environmental Affairs and Tourism.
- The Draft Park Management Plan was put together with financial assistance from DANCED.
- The compilation of this Nomination Document is being funded by NORAD.

h. Sources of expertise and training in conservation and management techniques

As with most park managers in South Africa, the Park Manager has a BSc Hons degree. Scientific support is provided by the Conservation Services (Social Ecology and Biodiversity Scientific Services), which has a number of Ph D level scientists with a range of, mostly ecological, expertise. The overall Project Coordinator of the various initiatives in the Mapungubwe area is the head of the Cultural Resources Management Section of SANParks, who has a BA Honours degree in cultural resources management.

As the establishment increases in response to the increasing area under SANParks control, it is intended to appoint a qualified archaeologist at the Deputy Park Manager level. The field rangers employed by SANParks have all been through the rigorous Field Ranger Training Course, which includes a wide range of management skills, including patrolling and recording observations on natural and cultural aspects.

Some years ago an Archaeological Task Group (ATG) was established by the Joint Management Committee to advise on and coordinate all aspects of research and management of the cultural resources of the Mapungubwe Area. The ATG includes archaeologists or representatives from the Universities of Pretoria, Wits and Venda; SAHRA, Northern Province Dept of Sports, Arts and Culture, Northern Province Nature

Conservation, Provincial Museums, and the National Cultural History Museum. This pool of expertise is available to the Park Manager to advise on all issues to cultural resources management.

i. Visitor facilities and statistics

Minimal visitor facilities are presently available in the core area of the Park, but the provision of tourism facilities and experiences is the main theme of the tourism master planning exercise which is presently in process. This plan has to make recommendations on tourist accommodation, interpretation centre/s, tourist flows, information, non-motorised experiences etc. There are several tourist lodges in properties proposed to be included, as well as in the surrounding area (Table 4.2).

Table 4.2 Existing tourism facilities in the Mapungubwe area (from Peter Norton & Associates 2000)

Facility name	Core activities/ markets	Beds	Price	First opened	Notes
Within the Mapungubwe Cultural Landscape					
Machete	International	12	R650	2000	
Machete campsite	Drifters campsite (exclusive use)			1999	
Little Muck Lodge	Hunting at present	20	R250 sc		
Little Muck (Mona Lodge)	hunting	12	R250 sc	1999	
Samaria Safaris	Fishing, gameviewing	20	R350c R165sc		Fishing on 14 ha dam Airstrip
Pont Drift Farmers Association Hall	Camping		R25pppn		
Surrounding areas					
Vhembe N R Kruidfontein	Game viewing	16	R180sc R550c	1998	
Vhembe N R Somerville	Lodge (planned)	10			4 x airstrips
Vhembe N R Parma	Accom in mgr's house	10			
Ratho	Domestic family market Self-catered camping 4x4 groups	12 own tents	R650/4 +R75pp R75pppn	1997	Tuli elephants in river bush Game drives Some rock art, Croc farm River stones an attraction
Dongola N R	3xConference rooms (80+) caravan park planned also hunting	28 14 40	± R125sc	2000	
Klein Bolayi	Self-drive	16	R140 bed R130 meals		Large granite rock an attraction
Abend Ruhe Gotha	Catered/self-catering Conference	40			
Bandur – Mopane – Matoppie lodge – Maroela lodge		7 6 8	R50pppn R120sc/ R300 c		Lion camp
Mashatu – Botswana Main Camp Luxury tented camp	Corporate, local Mostly international	24 10 14	R924pppns R792 R660pppns	1995	Archaeological tours to Mmamagwe Cycling tours close to big game

For several years the Mapungubwe Site has been closed to the public. However, in response to numerous requests, a part-time tourism officer has been appointed and trained, and she now provides tours to the Mapungubwe and K2 sites, for a nominal fee.

j. Property management plan and statement of objectives

The Preliminary Park Management Plan gives the following vision, mission and objectives for the area:-

Vision

“To acquire land to consolidate and manage the Vhembe-Dongola National Park as part of a world-class Trans Frontier Conservation Area and World Heritage Site.

Mission

“The Vhembe-Dongola National Park will be developed to maintain the faunal and floral assemblages, ecological processes and cultural landscape characteristics representative of the area, to foster international co-operation and offer long term benefit to the whole society in keeping with the mission of the SANParks.

Objectives to achieve the mission and vision

“The main objectives to achieve the mission and vision of the Vhembe-Dongola National Park are to:

- 1. Consolidate the core area into a national park.*
- 2. Ensure and develop the ecological and cultural viability of the area.*
- 3. Develop the area for social and economic sustainability.*
- 4. Re-establish and maintain the biodiversity of the area in all its facets and fluxes.*
- 5. Identify, assess and manage the cultural resources in the area.*
- 6. Maintain a balance between the demands of the natural and cultural environments.*
- 7. Provide human benefits in keeping with the mission of the South African National Parks.*
- 8. Develop the park to be a core of the proposed Limpopo-Shashe TFCA.*
- 9. Facilitate the process of World Heritage Nomination for the Mapungubwe Cultural Landscape.”*

Principles of Cultural Resource Management

The principles of Cultural Resource Management in the Vhembe-Dongola National Park are to:

- 1. Maintain the significance, values and integrity of the physical and intangible remains of the rich and diverse cultural heritage of the park;*
- 2. Accept responsibility for safeguarding, conserving and managing this heritage as an integral part of sustainable environmental management in the Park;*
- 3. Incorporate and honour the needs and values of local and neighbouring communities in development programmes; and*
- 4. Promote the MCL as a place of symbolic pilgrimage to instil national and international pride in the achievements of indigenous African people in pre-colonial times.*

Objectives of cultural resource management

- 1. Develop a cultural resource management policy for the Vhembe-Dongola National Park as an extension of the newly developed national cultural resource management system.*
- 2. Establish and manage a cultural resource management system which should incorporate as a matter of priority in its database:*
 - An inventory of cultural resources in all parks*

- *Relevant documentation*
 - *Status reports, and*
 - *Management priorities.*
3. *Formulate and implement a cultural resource management plan for the park as soon as inventorisation is completed. This process should again be participatory and consultative, involving internal and external stakeholders.*
 4. *Include cultural resource management strategies, procedures, codes of practice, guidelines, norms and standards and mitigation techniques and methods.*
 5. *Design and implement a suitable and practical monitoring system for cultural resources in the national park in order to determine the state or condition of resources, and enable decision-making in terms of conservation measures or improved management to be made.*
 6. *Identify research needs and priorities as well as recommendations with regard to research contracts, partnerships or concessions to individuals or institutions.*
 7. *Direct and co-ordinate research projects and ensure adherence to standards of practice and operational efficiency. Interpret and disseminate reports and results.*
 8. *Manage an impact assessment system to aid developmental work in the national park with regard to the evaluation of heritage sites or structures.*
 9. *Channel adequate funding to cultural resource management, to manage the cultural resource management budget according to appropriate standards, and to provide support and motivation for research and development.*
 10. *Co-operate with other departments to register Mapungubwe as a World Heritage Site and develop it as a tourist destination and educational resources in the park in order to further enrich tourist experience and to promote cultural resources as an integral part of tourism.*
 11. *Optimise the role and value of cultural resources in further improving relationships and stakeholderhip with neighbouring communities.*

k. Staffing levels

The present establishment of the Park is as follows:

1 x Park Manager

1 x Regional Ranger

1 x Administration and tourism officer

1 x Ranger corporal

5 x Field Rangers (one post presently vacant)

2 x student conservators (from 2002 onwards)

Contract workers for specific projects

21 part-time workers for site rehabilitation under the Poverty Alleviation Programme

21 part-time workers under the Working for Water Alien Plant Eradication Programme

**MAPUNGUBWE
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Chapter 5

**FACTORS AFFECTING
THE PROPERTY**

5. FACTORS AFFECTING THE PROPERTY

a. Development pressures

i. *Agriculture*

The satellite photograph of the Mapungubwe Cultural Landscape (Map 7) shows clearly where intensive agriculture is being practised on irrigation lands along the Limpopo River. These fall into three main areas, those upstream of the Park, those within the proposed Park, and those downstream of the Park. The main impacts that they are likely to have are:-

- Removal of water
- Eutrophication due to fertilisers
- Waterborne invasive alien plants
- Bush clearing and ploughing of natural bush
- Ploughing of cultural sites.

All of these impacts are likely to have the most effect close to the river, which is a habitat that has already been extensively disturbed by flooding over the centuries, and more recently by several decades of agriculture. The agriculture upstream and downstream of the Park is likely to continue, but is unlikely to expand substantially because of pressures under the new Government. Under the new Water Act the Government will be far stricter on use of water for irrigation, and may even require farmers to pay for it. Recent initiatives to repatriate Zimbabweans has also put pressure on the economics of farming, because these people were mostly prepared to work for lower wages than their South African counterparts. In addition, the cost of fertilisers and machinery is increasing faster than the prices of crops.

Within the Park the lands presently in use will be decommissioned and gradually rehabilitated, and therefore the Park will halt any further agricultural encroachment. Generally most of the sites are away from the river, and therefore the direct impact of agriculture will be minimal, although the visual impact of crops in certain vistas will remain.

Grazing, particularly by cattle, has had a substantial impact on the vegetation in the past. However, the numbers of stock are substantially lower than they were in the middle of last century, and are therefore unlikely to have significant new impacts.

ii. *Mining*

There are two mining operations with a potential impact on the Mapungubwe Cultural Landscape, the small Riedel diamond mine, and the major Venetia Mine.

A small portion of the farm Riedel in the eastern part of the Park has been kept on in the hope that it will yield profitable mining operations. This site is in the ancient river course of the Limpopo River. All indications are that it is worked out and unlikely to have an impact on the Mapungubwe Cultural Landscape.

The Venetia Mine is a major diamond mining operation opened in the 1990s by De Beers

Consolidate Mines Ltd. Because it is new it was subject to the Environment Conservation Act of 1989, and a full Environmental Impact Assessment and Environmental Management Plan was prepared. The information on impacts and mitigation is being obtained, and will be included in the final document.

Most of the staff of the mine live in Messina and are bussed in on a daily basis, so there is limited development pressure at the mine itself. However, the bright lights of the mine are highly visible from many kilometres away, and this may have a negative impact on tourism experiences.

The Messina area is a fairly rich mining area, and there is a possibility that deposits of other valuable minerals may be found. The exact ownership of most of the mining rights in the Park has not yet been sorted out, apart from the above two mines. However, the new Minerals and Energy Act returns all mining rights to the State, and the Government will therefore be in a far better position than it has been for over a century to make an informed decision on whether any new deposits should be mined or not.

b. Environmental pressures

Very limited environmental pressures are expected. Pollution is very limited in the area, and what there is is waterborne along the river. A five-year Alien Invasive Plant Eradication Programme is being carried out under the Working For Water Programme, aimed mostly at waterborne invasives such as *Nicotiana*, as well as some cacti.

The impact of opening up the property to big game, especially elephants, needs to be considered. There is some argument for fencing off the most important sites from elephant damage. However, elephants have been part of the picture for thousands of years, and the counter-argument says that some elephant impact should be accepted as part of the natural processes. In any case the impact of rodents and other burrowing animals appears to have a far more noticeable impact than occasional elephant damage. Nevertheless, this issue will be debated. A monitoring programme to detect elephant impacts has already been initiated.

Climate change is clearly a major factor in the Mapungubwe Cultural Landscape, and Chapter 3 outlines how the main settlements grew in response to optimal climatic conditions. We are presently at the drier end of the cycle for this part of the Limpopo Valley, and higher rainfall periods can be expected in any case. No specific impacts are expected.

c. Natural disasters and preparedness

The main natural disasters to be considered are flooding and fire.

Flooding occurs periodically in the Limpopo Valley as a natural phenomenon. Although it will clearly affect cultural sites close to the river, flooding has occurred here for thousands of years, and most of the sites have been extensively damaged some time ago. The main consideration is that any new excavations close to the river should take into account the potential impact of flooding if the deposits are left exposed during the rainy season.

Under the influence of climate and a long history of heavy grazing by domestic stock over the last century the vegetation of this part of the Limpopo Valley is such that fires are only likely under exceptional conditions, such as those that occur at present. The Park has a fire management policy in place, fire assistance agreements have been made with neighbours, and firefighting equipment such as a water cart and trained team are on standby. The main impact on the Mapungubwe Cultural Landscape is that, under particular conditions, it is possible that a fire could get into the thick vegetation around rock shelters and damage the rock art. This will have to be monitored, and action taken if impacts are likely.

d. Visitor/Tourism pressures

This is likely to be one of the main factors affecting the property, and inadequately controlled tourism pressure could have a substantial impact on the sites, through trampling of deposits, graffiti, damage to paintings and other artefacts, and removal of archaeological material such as pottery and beads. These issues must be addressed specifically in the Tourism Master Plan presently being drawn up.

A particular issue that will have to be addressed is whether visitors will be allowed on to the top of Mapungubwe Hill itself. Without very good interpretation it is not as exciting a tourism experience as first expected, and there is an argument for keeping all but special groups off the hill.

Additional impacts are those of the workers themselves, whether construction workers building tourism facilities, archaeologists, site rehabilitation teams or SANParks staff.

e. Number of inhabitants

There are presently several hundred farm workers living within the boundaries of the Planned Mapungubwe Cultural Landscape, but they will gradually move off as farming operations are wound up in accordance with negotiations with landowners.

In the total TFCA area there are several thousand inhabitants, mostly in the Maramani area in Zimbabwe. These rural people are very poor, and providing economic opportunities is a key component of the development of the TFCA. It is essential that, in exchange for these economic benefits, the communities undertake to implement responsible environmental practices that minimise impacts on the environment.

f. Other

The process of Land Restitution has been continuing since the advent of the New South Africa 1994. There are a number of land claims in the Mapungubwe area of varying levels of credibility. Although the Land Claims Commission is trying to speed up the process as much as possible, it has proved to be more complex than expected, and is likely to take several more years before clarity is obtained. This lack of clarity is hampering development in many rural areas of South Africa.

In the meantime, SANParks is following an open approach, and is acceding to most

realistic requests for visits to the area by traditional and cultural groups. Any rituals or traditional practices on or near sites are carefully negotiated and monitored.

Natural erosion is leading to removal of deposits in many old excavations, and the Archaeological Task Group has taken on the planning and supervision of a Site Rehabilitation Programme funded by the Poverty Alleviation Fund (Photos 14 and 15).

Cross-border crime, particularly stealing of stock and building materials from temporarily unoccupied infrastructure is a particular problem of the TFCAs, and cooperative policing agreements are an important part of TFCA implementation. At the same time, programmes will be instituted to increase awareness of local communities of the potential benefits of the TFCA and increased tourism that

**MAPUNGUBWE
CULTURAL LANDSCAPE**

**Chapter 6
MONITORING**

6. MONITORING

As part of the NORAD-funded Mapungubwe World Heritage Site Nomination Project a Cultural Resources Management Plan framework was drawn up, and this has been incorporated into the Preliminary Park Management Plan. A key recommendation is that a Monitoring Programme must be formulated, but the details of this have not yet been worked out. As outlined in Chapter 4, this Park Management Plan will be expanded to become the Integrated Management Plan required by the South African World Heritage Convention Act.

At an Archaeological Task Group Meeting on 8 November 2001 the ATG will be asked to set up a Working Group to make recommendations on a structured Monitoring Programme for the cultural sites in the Mapungubwe Cultural Landscape, including indicators, administrative arrangements and reporting.

a. Key Indicators for measuring state of conservation

At a general level for the management and conservation of Mapungubwe Cultural Landscape the area the following indicators are applicable:-

- Properties identified for the core area either purchased or contractual agreements in place.
- Properties identified or proclaimed as National Park under the National Parks Act.
- Mapungubwe Cultural Landscape gazetted as a National Heritage Site under the National Heritage Resources Act
- Mapungubwe Cultural Landscape listed on the World Heritage List
- Mapungubwe Cultural Landscape gazetted as a World Heritage Site under the South African World Heritage Convention Act.
- SANParks appointed as the Authority for the Mapungubwe Cultural Landscape under the World Heritage Convention Act
- Integrated Management Plan contemplated in the World Heritage Convention Act approved.
- Detailed Cultural Resources Monitoring Programme completed and incorporated into the Integrated Management Plan.

Site-specific indicators will be developed by the Monitoring Working Group of the Archaeological Task Group.

b. Administrative arrangements for monitoring property

In terms of the National Heritage Resources Act, the South African Heritage Resources Agency is responsible for the management and monitoring of all proclaimed National Heritage Sites. If management on the ground is carried out by another management agency, that agency must submit an annual report to SAHRA on an annual basis. In terms of national legislation SANParks will be required to submit an Annual Report to SAHRA, which includes a report on the state of conservation of the sites included in the Mapungubwe Cultural Landscape.

In terms of the South African World Heritage Convention Act the management authority is required to submit an annual report to the Minister of Environmental Affairs and Tourism regarding the implementation of the Integrated Management Plan. SANParks will therefore have to report to this Minister as well.

As part of the Integrated Management Plan, future reporting will be linked directly to progress on indicators identified in the Monitoring Programme.

c. Results of previous reporting exercises

In terms of the National Parks Act, monthly and annual reports must be submitted to SANParks Headquarters. Monthly reports for the last year are available, with irregular reports before that. These deal with a range of issues regarding the state of conservation of the property.

Records of discussions on the state of conservation of the cultural sites are included in the Minutes of the Archaeological Task Group.

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Chapter 7
DOCUMENTATION

7. DOCUMENTATION

The following documentation is attached as appendices.

- Preliminary Park Management Plan, Vhembe Dongola National Park, SANParks (2001)
- *African Naissance: the Limpopo Valley 1000 years ago*, edited by M Leslie & T Maggs (2000)
- *The Archaeological sites of Greefswald: stratigraphy and chronology of the sites and a history of investigations*, by A Meyer (1998)
- Oral history of the Mapungubwe area, by V Ralushai (2001)
- The rock art of the Limpopo-Shashe Confluence Area, by E Eastwood (2001)
- An overview of tourism development potential in the Mapungubwe area, by Peter Norton & Associates (2000)
- *National Heritage Resources Act* (No 25 of 1999)
- *World Heritage Convention Act* (No 49 of 1999)
- *National Parks Act* (No 57 of 1976, as amended)

- Consent forms from Landowners in the Mapungubwe Cultural Landscape

Addresses where inventory, records and archives are held

1. Collections from Greefswald, Mapungubwe Hill, Southern Terrace, K2 and Den Staat: Department of Anthropology and Archaeology, University of Pretoria, and the SASOL African Heritage Exhibition: Mapungubwe Museum, University of Pretoria, Pretoria 0002,
 2. Van Riet Lowe Bead Collection, and site inventories and artefacts excavated from Leokwe Hill, Little Muck, Balerno and certain sites on Greefswald: Archaeology Department, University of the Witwatersrand, 1 Jan Smuts Ave, Private Bag 3, Wits, Johannesburg, 2050
 3. Collections from Schroda and Pont Drift: National Cultural History Museum, P O Box 28088, Sunnyside, Pretoria, 0132
 4. Rock art tracings, photographs and maps: Palaeo-Art Field Services, P O Box 168, Louis Trichardt, 0920
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Chapter 8

CONTACT INFORMATION

8. CONTACT INFORMATION

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c. Other Local Institutions

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Mapungubwe Museum
University of Pretoria
Pretoria 0002, RSA
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Email: mapungubwe@postino.up.ac.za

d. Official web site

The main Mapungubwe website is not yet in operation or registered, but when ready there will be links to the general website of the Department of Environmental Affairs and Tourism:

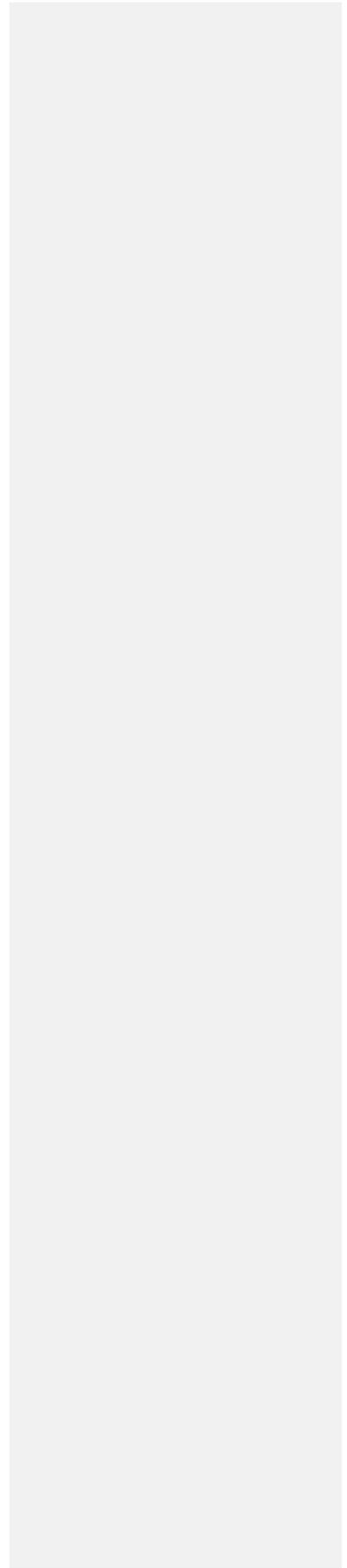
<http://www.environment.gov.za>
Responsible contact: Piet Leso:
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**MAPUNGUBWE
CULTURAL LANDSCAPE**

Chapter 9

**SIGNATURE ON BEHALF OF
THE STATE PARTY**

9. SIGNATURE ON BEHALF OF THE STATE PARTY



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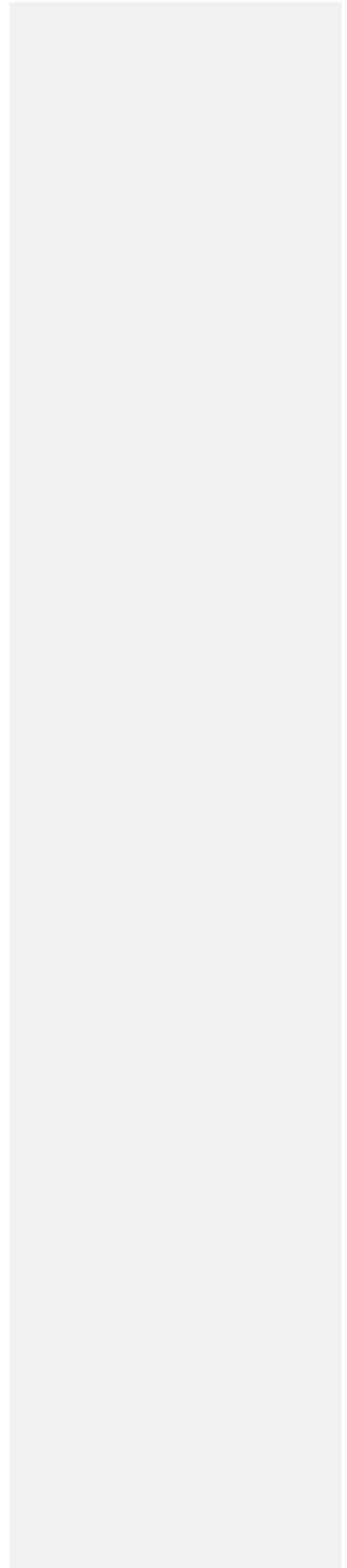
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MAPUNGUBWE CULTURAL LANDSCAPE

FIGURES AND PHOTOGRAPHS



FIGURES AND PHOTOGRAPHS

Figure 1 Orientation map of the Limpopo Valley, showing Mapungubwe, Great Zimbabwe, Khami, and conservation areas

|  Figure 2 Road map of the Mapungubwe Area

|  Figure 3 South Africa 1:250 000 map showing the Mapungubwe Cultural Landscape

|  Figure 4 Satellite image of the Mapungubwe Cultural Landscape
±1:185 000

|  Figure 5 Properties for inclusion in the Mapungubwe Cultural Landscape
±1:250 000

|  Figure 6 Middle Iron Age archaeological sites in the Mapungubwe Cultural Landscape ±1:250 000

|  Figure 7 Rock art sites in the Mapungubwe Cultural Landscape ±1:250 000

|  Figure 8 Late Iron Age (post Mapungubwe) archaeological sites in the Mapungubwe Cultural Landscape ±1:250 000

Figure 9 From Mapungubwe they linked into the Indian Ocean Trade Network, and traded as far afield as China and Indonesia

Figure 10 Generalised climate pattern related to settlement at Mapungubwe (based on information from Huffman 1996)

Figure 11 Suggested settlement pattern at Mapungubwe (from Huffman 2000)

Figure 12 Map of excavations at K2 (from Meyer 1998)

Figure 13 Map of excavations at Mapungubwe (from Meyer 1998)

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