

## **Notes on Archaeology and Prehistoric Mining in the Kruger National Park**

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Archaeological research in the Kruger National Park (KNP) was formally instituted in 1963. During 1973 the National Parks Board of Trustees allocated an archaeo-ethnological research project to the Department of Archaeology, University of Pretoria and this step revealed that the KNP has an important archaeological research potential. A review of these reconnaissance activities (between 1973-1983) is given and the chronology of archaeological sites and finds (Early, Middle and Late Stone Ages) in the KNP are briefly discussed. Data are also presented on the Iron Age and localities of prehistoric mining activities are identified.

Key words: Kruger National Park, archaeology, Stone Age, Iron Age, prehistoric mining, Masorini.

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### *Introduction*

Prior to 1973, archaeological research in the Kruger National Park (KNP) was mostly sporadic and limited to incidental discoveries of artifacts or tools. Interpretation was of little value, except in isolated cases. In 1963, however, a joint archaeological and ethnological research project was undertaken by Eloff and De Vaal on the Makahane site north of Punda Maria, resulting in a published report (Eloff & De Vaal 1965).

In 1973 the National Parks Board of Trustees allocated an archaeo-ethnological research project to the University of Pretoria's Archaeology Department, with Prof. J.F. Eloff as project leader. The Masorini Iron Age Site near Phalaborwa was intensively excavated with supplementary work done on similar nearby hills, *e.g.* Shikumbu and Vhudogwa. The project was completed in 1977 with a comprehensive research report by Eloff (Eloff 1976).

This project resulted in two major developments concerning archaeological research and its application within the boundaries of the park: firstly a Site Museum (Verhoef 1982) was erected at Masorini, based on the research findings, and displaying the life-style of the baPhalaborwa, an Eastern Sotho group who were well-known Late Iron Age iron smelters (Du Toit 1968). The second development gathered momentum while the Masorini project was still underway, *i.e.* an archaeological reconnaissance of the southern bank of the Letaba valley. At the end of 1977 it was already evident that the KNP had a vast and yet untapped archaeological research potential. In this regard Eloff stated that the archaeological research up to 1977 already supplied scientific information on the presence of humans in the park area for the last 100 000 years. He further revealed that excavated bone material dated certain sites between 400 and 1 900 A.D., as well as enough evidence to interpret environmental utilization over the last 1 500 years (Eloff 1978). Although the research work at that stage was mostly concentrated on Iron Age sites, it was decided that the Stone Age Period could not be neglected and should be included in the broader and more extensive research phase that was to follow.

#### *Review of Archaeological Research in the Kruger National Park: 1977 – 1983*

The research team immediately registered this new research project (the archaeological reconnaissance phase) aiming to systematically locate and investigate all archaeological sites in the park, perform test excavations and to evaluate these for preliminary identification and/or interpretation purposes. The research potential of selected sites would thus be established for further intensive study of those historic and prehistoric cultures and their natural environment (Eloff 1978).

The reconnaissance of the park, spanning a period of almost ten years, and during which a few thousand kilometres were covered by vehicle and on foot, terminated in July 1983. Hundreds of archaeological sites were identified, representing the presence of peoples and cultures over a time span from 100 000 years ago to the present (Eloff 1982). The research culminated in various detailed research reports (Eloff 1979, 1981, 1983; Meyer 1983) as well as a report by Meyer on the Iron Age Period of the park (*in prep*). Important analysis work on faunal remains from various sites was done by Plug (1982, 1985). These findings provided all-important facts on the economy and diet of the people(s) linked to the sites, as well as dating of organic material, identification of tools and ornaments and some evidence of the natural environment at that time (Plug 1985).

The reconnaissance phase of the archaeological research project was successful regarding its aims and objectives concerning the Iron Age Period, namely:

- (i) To determine the archaeological potential of the Kruger National Park.
- (ii) To reconstruct the nature, chronological succession and geographic distribution of early cultures in the area.
- (iii) To investigate the practical value and possible applications of the research findings as well as the use of archaeological artifacts in terms of museology, conservation, tourism and wildlife management (Meyer 1983).

diseases (e.g. anthrax) and last but not least, a more complete picture of the presence, history and impact of man in this area. Not only archaeologists, but nature conservators and interpretive and educational staff could now gain knowledge on the reconstructed cultural and natural history of the area.

### *Chronology of Archaeological Sites and Finds in the Kruger National Park*

#### 1. The Stone Age

Eloff (1982) stated that enough evidence resulted from the above-mentioned archaeological research project to reconstruct a clear culture-historical picture of the Iron Age (i.e.  $\pm 400 - 1\ 800$  A.D. for the KNP area) but information on the Stone Age Period was inadequate. Cultural artifacts left behind by Stone Age man in the park are almost without exception only scattered stone tools, except in the case of the more recent Late Stone Age ( $\pm 20\ 000 - 100$  BP, San People) where living sites were protected by rock overhangs and little or no erosion occurred. Natural or man-made erosion is largely responsible for the uncovering of Early and Middle Stone Age artifacts, as found in other parts of Africa. In the case of the KNP eroded areas are not well developed.

Archaeological research hitherto\* – although primarily aimed at the Iron Age – did, however, supply some information on the Stone Age Period, and then only by means of incidental surface finds of stone tools. Only two Late Stone Age sites were excavated by Eloff, Küsel and Meyer (individually and/or jointly), but no dating on any material was done and the finds await further investigation. This overview of the Stone Age in the KNP is therefore by no means complete and deals only superficially with this period.

##### (i) The Early Stone Age Period

Stone artifacts collected at various sites in the park indicate that hominids were present in this area as far back as 1,25 – 1,5 million years ago, roughly during the Middle to Upper Pleistocene.

###### Pafuri Site

Artifacts from the Early Acheulian (Eloff *pers. comm.*) were collected on the flood-plain of the Luvuvhu River, east of the main road and probably represents the oldest prehistoric site in the park. A few handaxes display the typical “pebble” stone tools of that period.

###### Makhadzi Site

This site is situated north-east of the Letaba Rest Camp. The locality was classified as Middle to Late Acheulian (Eloff *pers. comm.*). Handaxes, cleavers and cores, together with many flakes are scattered over an area of roughly 500 m x 200 m on an exposed shelf on the bank of the Makhadzi River.

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\* J. Smuts (Jnr.) did some work on the Early and Middle Stone Age sites of the Pafuri area in  $\pm 1960$ .

### Stolsnek Site

Artifacts resembling finds from the Barberton and Badplaas regions (Eloff *pers. comm.*) were collected, representative of the Late Acheulian Period. These artifacts were found together with Middle and Late Stone Age tools in probably the only naturally eroded gully in the southern Kruger National Park.

Finds from the lower Crocodile River valley (as yet unconfirmed) may increase the number of sites.

#### (ii) The First Transitional Period

During 1985 stone tools were collected in the Pumbe Pan area on the Lebombo Mountains (east of Satara) and were identified as Sango or the later stage of this period (Eloff *pers. comm.*). A number of handaxes, scrapers, flakes and cores were found. This period is linked to the appearance of *Homo sapiens*  $\pm$  70 000 BP.

#### (iii) The Middle Stone Age Period

Although a thorough investigation of the Stone Age Period has as yet not been completed, finds typical of this period are rare in the KNP area. This period chronologically succeeds the previous period and forms a vital link with the Early and Late Stone Age Periods of which both are well represented in the park. This aspect needs further investigation.

Only one Middle Stone Age site (undated) was identified *i.e.* the above-mentioned Stolsnek Site. Elegant and well-made chert tools were exposed by erosion and were collected  $\pm$  500 mm under the eroded surface level. This site is probably linked to the Malelane finds (Eastern Lowlands), described by Mason (1962) as contemporary to the Pietersburg Industry.

#### (iv) The Late Stone Age

Preliminary reconnaissance and investigations during the past decade confirmed the relative abundance of Late Stone Age sites in specific area in the park. These are found on the western granites as well as in the far northern section in sandstone outcrops of the Soutpansberg sediments in the Punda Maria area.

On the eastern side of the KNP, fair quantities of artifacts were collected (surface) in the Bangu/Olifants Gorge area by Eloff and Meyer in 1980 and the lower Crocodile River floodplain by Meyer in 1983 and Verhoef in 1986.

The majority of these sites were identified by means of the concomitant occurrence of rock art, but little or no intensive research by means of excavations was undertaken so far. A number of sites were also found not associated with rock paintings, and these were identified by artifact collection on floors of rock overhangs.

Consequently the KNP management was able to have access to data concerning the ecology of specific periods (faunal remains studies) *e.g.* distribution and density of game species in certain areas, indigenous wildlife

land. Soon after men built small furnaces to manufacture weapons for hunting or battle, tools for agriculture and ornaments. Women made clay pots for everyday domestic use: the storage of meat, beer, water and food derived from plants. These pots were decorated with specific pattern types which were carried over culturally from mother to daughter and were characteristic of specific regions.

Iron Age remains in the Transvaal are not as spectacular as the Zimbabwean materials (Mason 1962), but they represent large and energetic populations who played an important part on the African scene. These people could build large stone walled villages, mine metal ores, make metal weapons and tools, bake pottery and produce food. These artifacts, or the remains thereof, are today used by modern researchers to study these very interesting groups of people who managed to spread over most of Africa, from the Sudan down to the Cape.

In this paper the history of the Bantu is not discussed in detail, especially where it concerns the period from their entry into the Transvaal a thousand years ago to the present time. What is of importance is the rich and diverse spectrum of Iron Age finds which was studied during, and immediately after, the reconnaissance phase of the archaeological research project undertaken by Eloff and Meyer over the past decade.

In his report submitted to the National Parks Board of Trustees, Meyer (1985) has succeeded in reconstructing the identity and broader context of Iron Age Industries of the KNP and adjoining areas, also giving an overview of the geographic and chronological links between identified industries.

Modern archaeologists have divided the Iron Age into three phases with reference to characteristics and relative age of industry complexes, and this also applies to the Kruger National Park.

(i) The Early Iron Age Period

Meyer (1985) has described only one industry in the park, the Mutlumuvi Industry, which was dated at *ca* 200 – 500 A.D. and related to the Silver Leaves site near Tzaneen. These groups were the earliest immigrants into the area, to be succeeded by later industries which developed from the aforementioned during the period 500 – 900 A.D. (Meyer 1985). These were associated with the Lydenburg, Sabie, Tsende, Balule, Luvuvhu and Mahlambamadube Industries.

(ii) The Middle Iron Age Period

This period has a time span of roughly 600 years, from *ca* 900 to 1 500 A.D. (Meyer 1985) and relatively few representative sites have been identified in the park. Industries from this period are well represented elsewhere in the country and it is possible that more sites in the park area might still be found.

(iii) The Late Iron Age Period

During this period, from *ca* 1500 to the nineteenth century or historic times, settlement activities by different ethnic groups took place in all major regions of the park. Meyer (1985) identified the following industries; The Ngwenya, Shirimantanga, Nhlasweni, Shingwedzi,

Lacking scientific proof from research as well as dated material from a representative sample of sites, it is difficult if not impossible to reconstruct the history and distribution of these men.

In terms of specific time and space, as well as against the background of the natural environment, they are considered to be Bushmen or San people. The association of rock art and artifacts at the same site, *i.e.* associating an industry with rock art, would then also be tentative.

Mr. M. English (Senior Ranger in the KNP) is at present working on an intensive survey and interpretation of rock art in the KNP, and has documented  $\pm 100$  finds to date. These records, as well as surface collection made by Eloff, Meyer and English, indicate that there are at least four main distribution areas of sites in the park. These are to be found in the south-west (Malelane-Stolsnek-Pretoriuskop-Skukuza hills); the mid-west (Upper-Timbavati River area); the mid-east (Lower Bangu River area) and the far north (Punda-Pafuri area). The highest concentration is found in the south-west. Although no records of sites to the west of the park are available, it would be interesting to know whether sites occur with similar abundance along the lower Drakensberg foothills and undulating plains.

The Late Stone Age of southern Africa has been relatively well described and documented by various researchers and it is accepted that two main cultural groups entered the South African prehistoric scene a few thousand years after the Later Middle Stone Age people. The Smithfield Culture moved down into the Transvaal into the area previously inhabited by the Pietersburg Culture (Middle Stone Age), southwards into the Orange Free State and replaced the last remnants of the Magosian Culture who had to retire into the mountains of Lesotho, Cape and Natal and the dry western parts, to evolve a Wilton Culture (Mason 1962). It is possible that the north-western KNP hunters belonged to the Smithfield Industry, but the more acceptable theory – at least for the south-western sites – is that of a Wilton Industry, if only because of the presence of small semi-lunar microliths found during excavations undertaken at a site near Skukuza by Eloff and Küsel in 1983. However, the need for in-depth research accompanied by excavations is needed to supply the facts about this culture of hunter-gatherers who inhabited parts of the KNP during a period from roughly 20 000 BP to well into the nineteenth century, when they were gradually replaced by a new culture, the Iron Age or Bantu.

## 2. The Iron Age

Over a thousand years ago the peaceful setting of the Transvaal was disrupted by the sounds of moving people, herded cattle and sheep or goats. The small Stone Age hunting bands clashed with and eventually had to give way to these people, who were not only physically superior, but carried strange iron-pointed weapons which proved to be very effective in skirmishes. The Iron Age immigrants cleared the bush, built villages, sometimes surrounding them with stone walls, planted grain and grazed their cattle over the vast new

Pafuri, Makahane, Lebombo, Shilowa, Letaba, Masorini and Nsikazi.

Some of these industries can be directly linked to historically known ethnic groups. The park area, for some reason, became partly depopulated during the nineteenth century and it is speculated that drought, diseases and forced population movements might be the cause. In this regard it is also possible that similar unfavourable natural conditions were responsible for the relative inactive period during the Middle Iron Age.

### *The Iron Age Period and Prehistoric Mining*

One of the outstanding aspects of the Iron Age Period was the technical ability of its cultures to manufacture iron tools, weapons and ornaments. This technology was applied by the immigrants from the north on entering the Transvaal and subsequently the present KNP area.

Hitherto, the remains of iron smelting activities have been found in two localities in the park, *viz.* Phalaborwa and Stolsnek. Both are associated with the Late Iron Age Period and it is known that the Phalaborwa Igneous Complex once supported a large community of famous smelters (Eloff 1976; Küsel 1979) with literally hundreds of iron smelting sites scattered over almost all the hills in that area, including Masorini, Shikumbu and Vhudogwa within the park boundary. The iron ore, or magnetite, originated from Lolwe (Loole Kop) at the centre of the mentioned area, where signs of primitive mining activities were recorded before it disappeared due to modern mining procedures (Küsel 1979).

The only other known source of iron ore in close proximity to the park was the Tshimbubfe area in eastern Venda (Küsel 1979), where signs of primitive mining was recorded.

It is generally accepted that mining activities were fairly specialised for that time, but no extensive shafts were sunk because iron ore also occurred freely on the surface in these areas.

No signs of prehistoric mining have so far been found within the boundaries of the park as such, and research revealed that other ethnic groups obtained iron implements through trade or bartering. In this way it is known that the economy of the baPhalaborwa was largely based on their technical skills to produce iron implements.

### *Conclusion*

Stone tools from the Early Stone Age found in the KNP resemble similar artifacts found in other parts of Africa and even Europe, which indicate that early man occurred in the park about one million years or more ago. Middle Stone Age artifacts were also found and the large number of rock art and other Late Stone Age sites lead to the conclusion that this area was utilised by different types of man during all the major prehistoric time periods. The arrival of Iron Age man marked another important era in the Lowveld's history and we know today that they were periodically under tremendous stress due to harsh natural and man-induced conditions which stretched their abilities to survive to the full.

## REFERENCES

- DU TOIT, A.P. 1968. *Die plek van die materiële skeppinge van die BaPhalaborwa in hul kultuur*. D. Phil. thesis, University of South Africa, Pretoria.
- ELOFF, J.F. and J.B. DE VAAL. 1969. Makahane. *Koedoe* 8:74-78.
- ELOFF, J.F. 1976. Samevattende verslag oor argeologiese navorsing in die Nasionale Krugerwildtuin vanaf Julie 1974 tot Julie 1976. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- ELOFF, J.F. 1978. Samevattende verslag oor argeologiese navorsing in die Nasionale Krugerwildtuin gedurende Junie en Julie 1977. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- ELOFF, J.F. 1979. Verslag oor argeologiese navorsing in die Nasionale Krugerwildtuin gedurende Junie en Julie 1979. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- ELOFF, J.F. 1981. Verslag oor argeologiese navorsing in die Nasionale Krugerwildtuin gedurende Januarie, Junie en Julie 1981. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- ELOFF, J.F. 1982. Verslag oor argeologiese navorsing in die Nasionale Krugerwildtuin gedurende Junie en Julie 1982. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- KÜSEL, U.S. 1979. *'n Argeologiese studie van vroeë ystersmelting in Transvaal*. M.A. thesis, University of Pretoria, Pretoria.
- MASON, R. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.
- MEYER, R. 1983. 'n Interpretasie van argeologiese terreine in die Nasionale Krugerwildtuin. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- MEYER, R. 1985. A profile of the Iron Age in the Kruger National Park. Rep. of the Department of Archaeology, University of Pretoria, Pretoria. (Unpubl.).
- PLUG, I. 1982. The faunal remains from Iron Age Sites in the Mahlangeni District, Kruger National Park. Rep. of the Department of Archaeozoology, Transvaal Museum, Pretoria. (Unpubl.).
- PLUG, I. 1985. The faunal remains from TSH 1, an early Iron Age Site in the Tshokwane district. Rep. Department of Archaeology, Transvaal Museum, Pretoria. (Unpubl.).
- VERHOEF, J. 1982. *Die oprigting en ingebruikstelling van die Masorini Terreinmuseum in die Nasionale Krugerwildtuin*. Script, Post-graduate Museology Diploma, University of Pretoria, Pretoria.