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NWANEDI-LUPHEPHE

Environmental Impact Study: Phase 2

Frans Roodt
Environmental Impact Study

**ARCHAEOLOGICAL
SURVEY**

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NWANEDI - LUPHEPHE ENVIRONMENTAL IMPACT
STUDY: PHASE 2
ARCHAEOLOGICAL SURVEY

INTRODUCTION

The Law

The *National Monuments Act (Act No. 28 of 1969, as amended)* protects all palaeontological, archaeological and historical sites and material older than 50 years. It is an offence to destroy damage, alter, remove from its original site, or excavate any such site or material without a permit from the National Monuments Council (NMC). *A copy of this impact assessment must be sent to the NMC.*

In addition, the *Environment Conservation Act (Act No. 73 of 1989)* makes provision through the IEM procedure for the drawing up of reports on the impact on the environment of activities identified and prohibited in terms of Sections 21 and 22 respectively. These reports will evaluate the impact such development may have on the natural and *man-made* environment, and this includes archaeological sites.

Archaeological Remains

The discovery of archaeological remains is to a large degree dependent on the visibility of such remains, normally as a result of exposure through the activities of natural agents such as erosion and animal burrowing, as well as by man-made disturbances such as roads, mechanical excavations and plowing activities.

A place where the material remains of past societies are discovered, is known as an **archaeological site**. The remains are found in the form of **artifacts**, which are objects made by people, for example stone and metal tools or pottery; **structures** like huts; **features** like graves; human skeletal remains; and **ecofacts**, non-man-made objects such as animal bones, seeds, charcoal and pollen.

Iron Age sites are easily identified by the remains of material such as pottery and stone, as well as middens and burnt hut debris. Pottery traditions and styles are acknowledged as diagnostic criteria for the identification of groups and cultures and are therefore a handy tool for the archaeologist.

METHOD OF INVESTIGATION

1. Reconnaissance

Reconnaissance by vehicle and by foot. Each hill on the proposed route as well as certain areas on the plain where archaeological remains could be expected was investigated by foot. Local villagers were interviewed with the assistance of a Venda speaker that was employed as guide and interpreter. A GPS was used to record the coordinates of archaeologically significant finds and features and small finds were photographed. Sensitive areas or sites are marked on the 1:50 000 map.

2. Literature

No published material was found of the survey area. Published sources however exist of the region north west of the Zoutpansberg, the mountain itself as well as the region south and south east of the mountain, from which comparisons could be drawn.

LOCATED ARCHAEOLOGICAL SITES

1. Zwigodini (location of balancing reservoir)

Coordinates: S22° 31' 45" E30° 35' 59"

An archaeological site was found on the hill top. The site consists of a number of features such as three, possibly four, circular stone floors (*plate 1*), a banded iron stone outcrop which was probably mined in pre-colonial times (*plate 2*), collapsed stone walling forming terraces (*plate 3*), and numerous fragments of pottery (*plate 4*). A spindle whorl (*plate 5*) was also found. Excavations will certainly reveal more settlement deposits. The southern foot of the hill also contains archaeological remains.

The pottery is fragmented, but nevertheless could tentatively be identified as two separate traditions namely Moloko (13th - 15th century Sotho-Tswana) and Khami (15th - 16th century Zimbabwe [Shona]). This is a historically significant site and may not be damaged.

Significance: High.

Recommendation: *That the reservoirs be placed on an unobtrusive place on the northern side of the hill and that the pipeline be routed accordingly.*

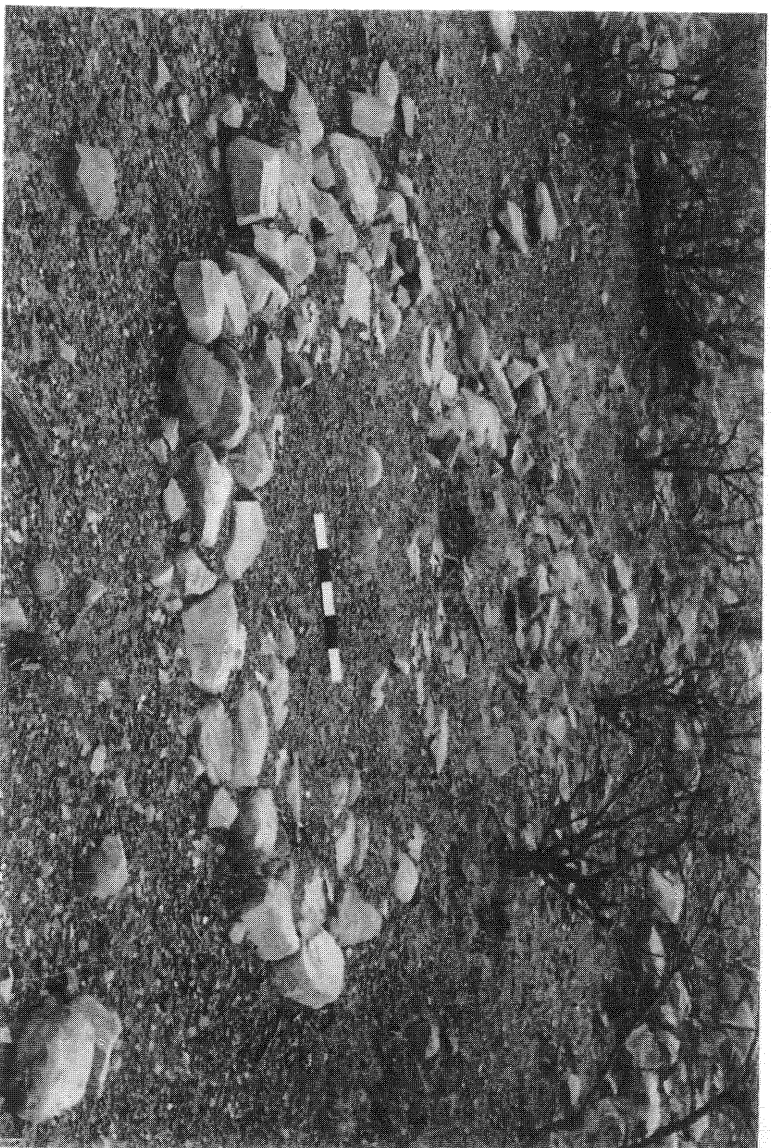


Plate 1. Circular Stone Floors



Plate 2. Banded Iron Stone Outcrop



Plate 3. Collapsed Stone-walling

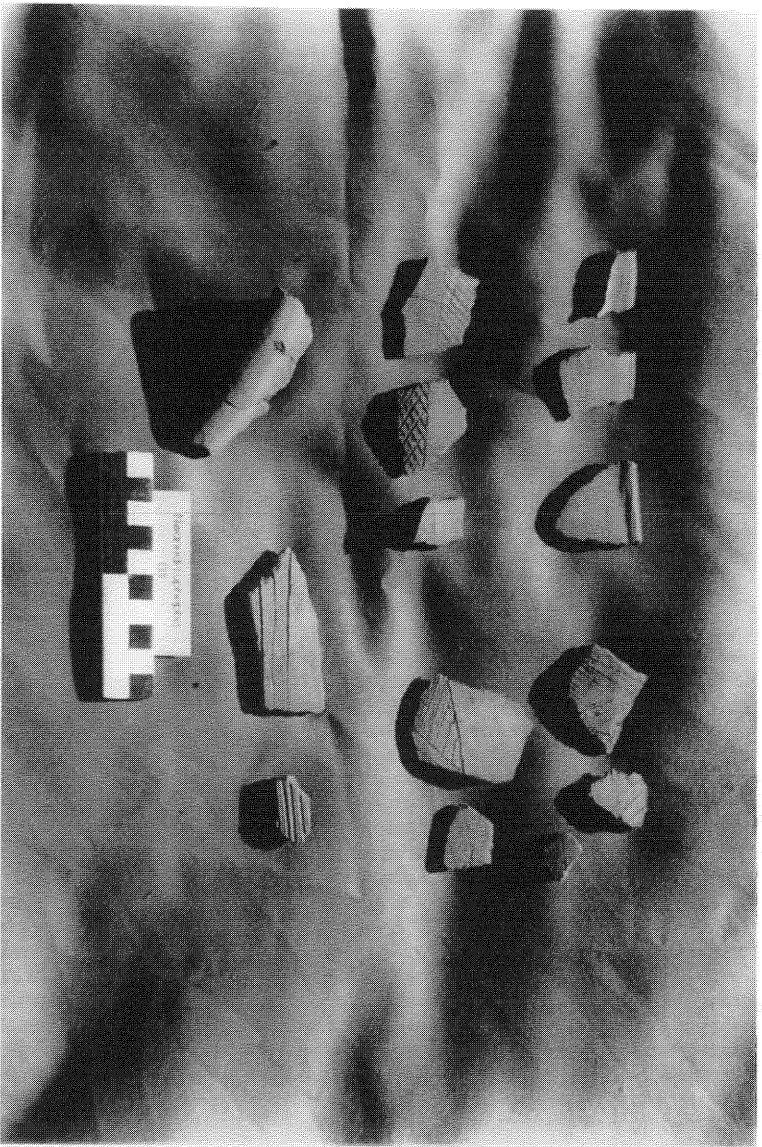


Plate 4. Pottery Fragments

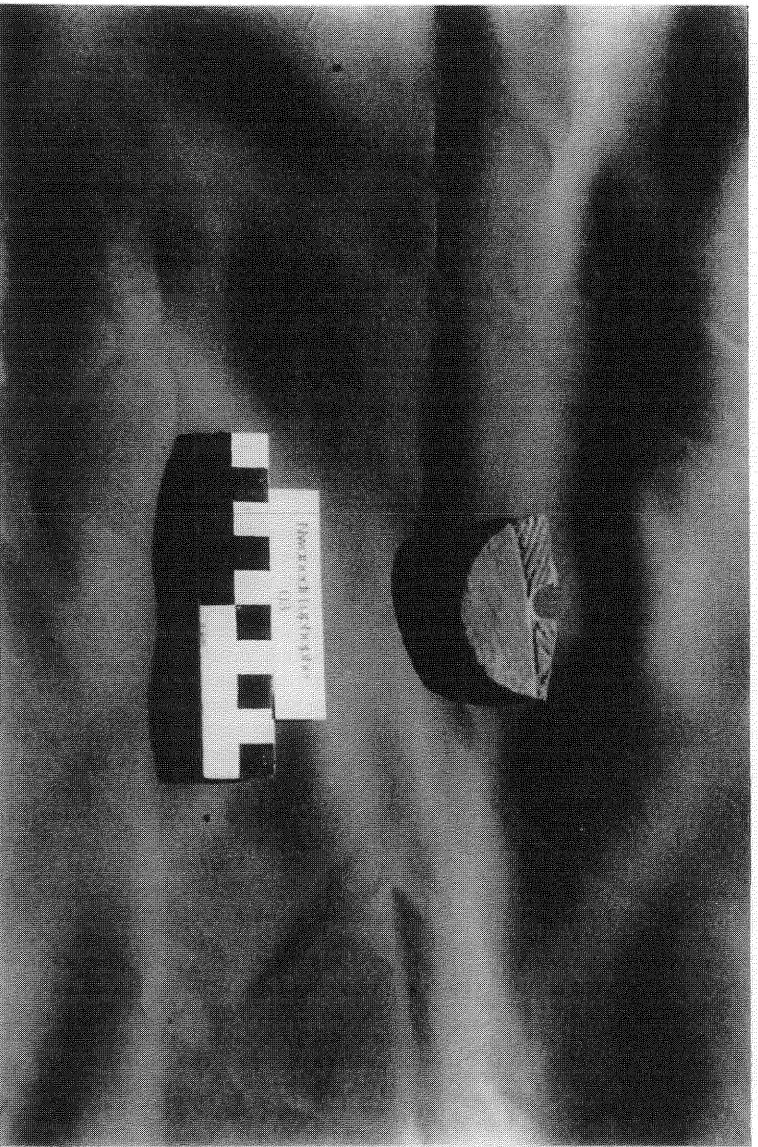


Plate 5. Spindle Whorl

2. Mbodi I & II (reservoir)

Coordinates: S22° 32' 46.3 E30° 42' 50.4"

An archaeological site was found on the plateau of the hill where natural terracing occurs (*plate 6*). This site produced pottery as well as slag (*plate 7*) from metalworking activities. The pottery (*plate 8*) is classed as Khami (15th - 17th century) and Letaba (Venda) traditions.

Significance: High.

Recommendation: *That the reservoir be placed at the furthestmost eastern side of the hill.*

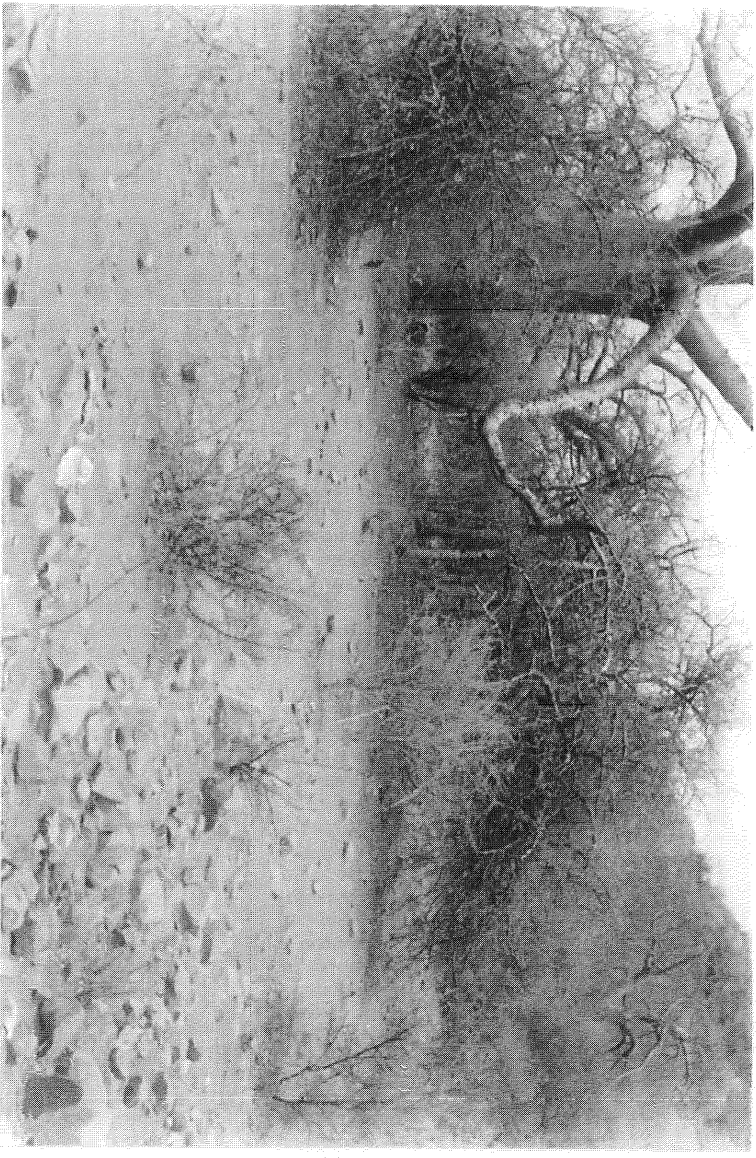


Plate 6. General View of Hill Top

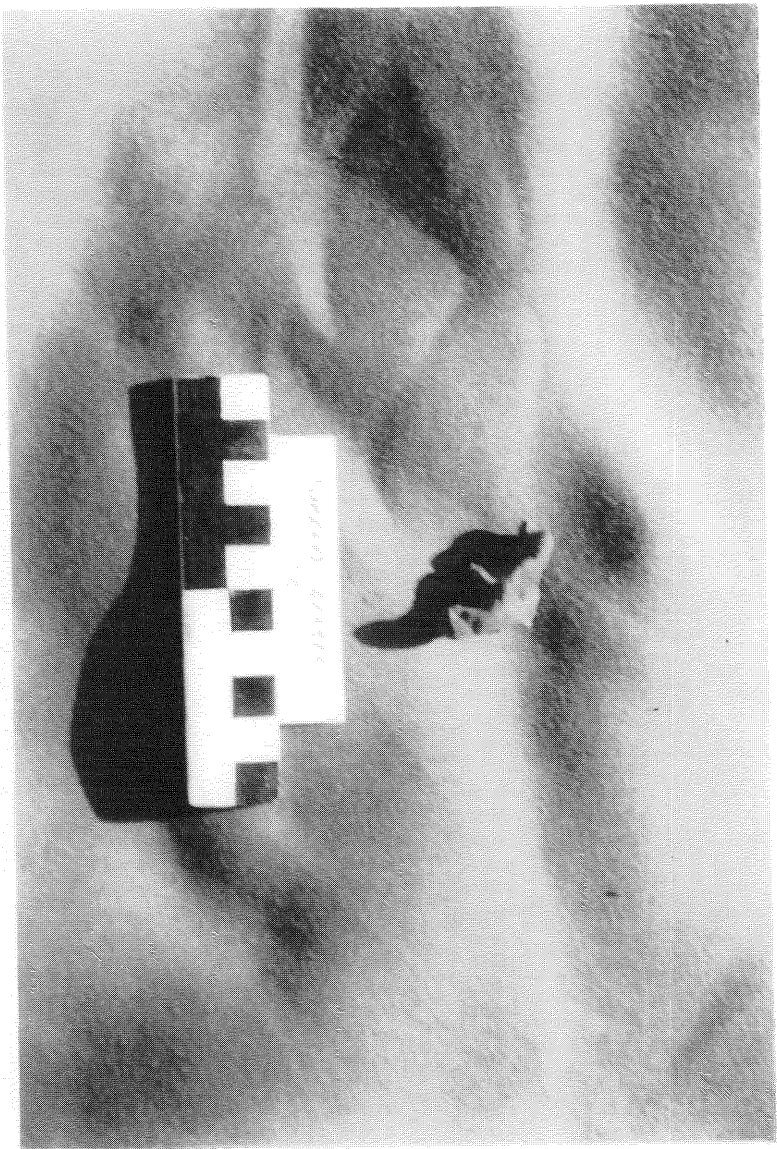


Plate 7. Slag from Metalworking Activities

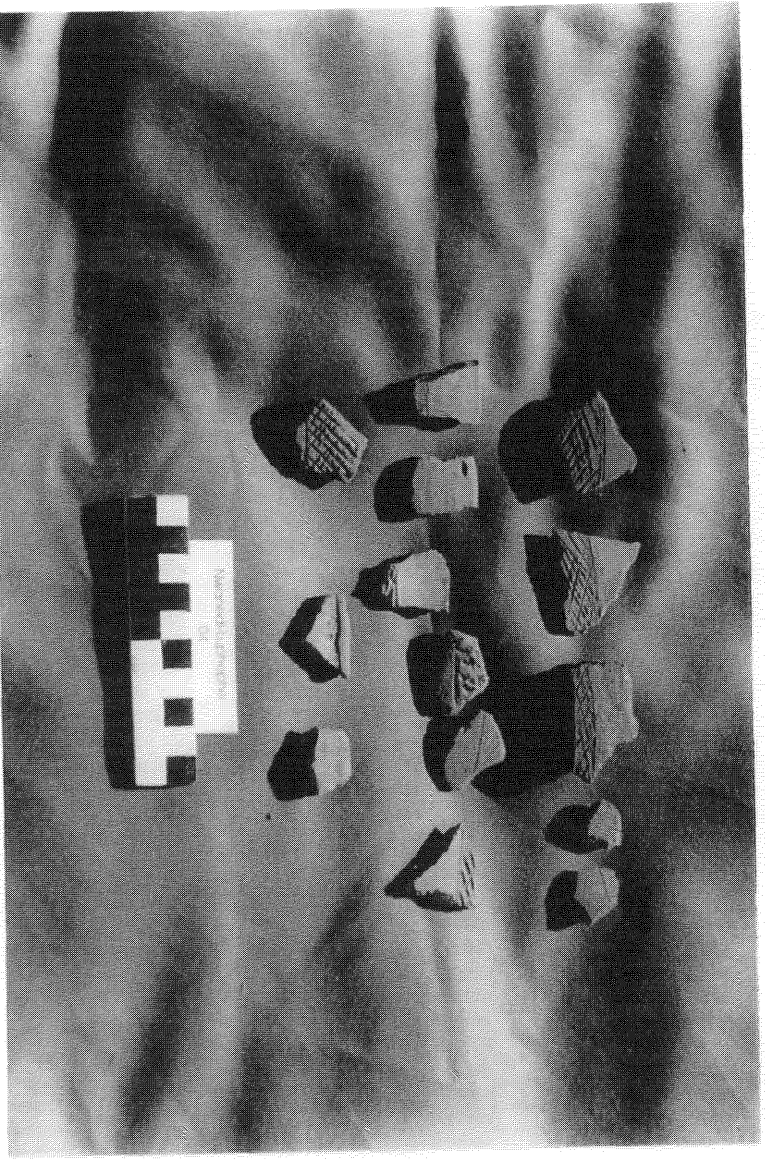


Plate 8. Pottery Fragments

3. Gwakawani

Coordinates: S22° 33' 55.4" E30° 47' 35.5"

An archaeological site was located next to the road that will be intersected by the pipeline. The site extends up the slope to an elevated flattened area which has been ploughed. Cultural remains found include pottery, metalworking slag, hut debris and grinding stones. Three different pottery traditions (*plate 9*) were tentatively identified, namely Eiland (11th - 13th century), Moloko (13th - 15th century), and Khami (15th - 17th century). This site has been degraded to a large extent and it seems that the only part still intact is the section where the pipeline will pass through.

Because of the interaction and overlapping between the different traditions, this site may be of significance in understanding the pre-colonial history of the region.

Significance: High.

Recommendation: *This site must be mitigated with the aim of a possible Phase 2 excavation. It is recommended that the archaeologist be allowed time to inspect and record the deposit when the trench is excavated. Should a significant deposit be found, a standard excavation must be commissioned by the developer.*

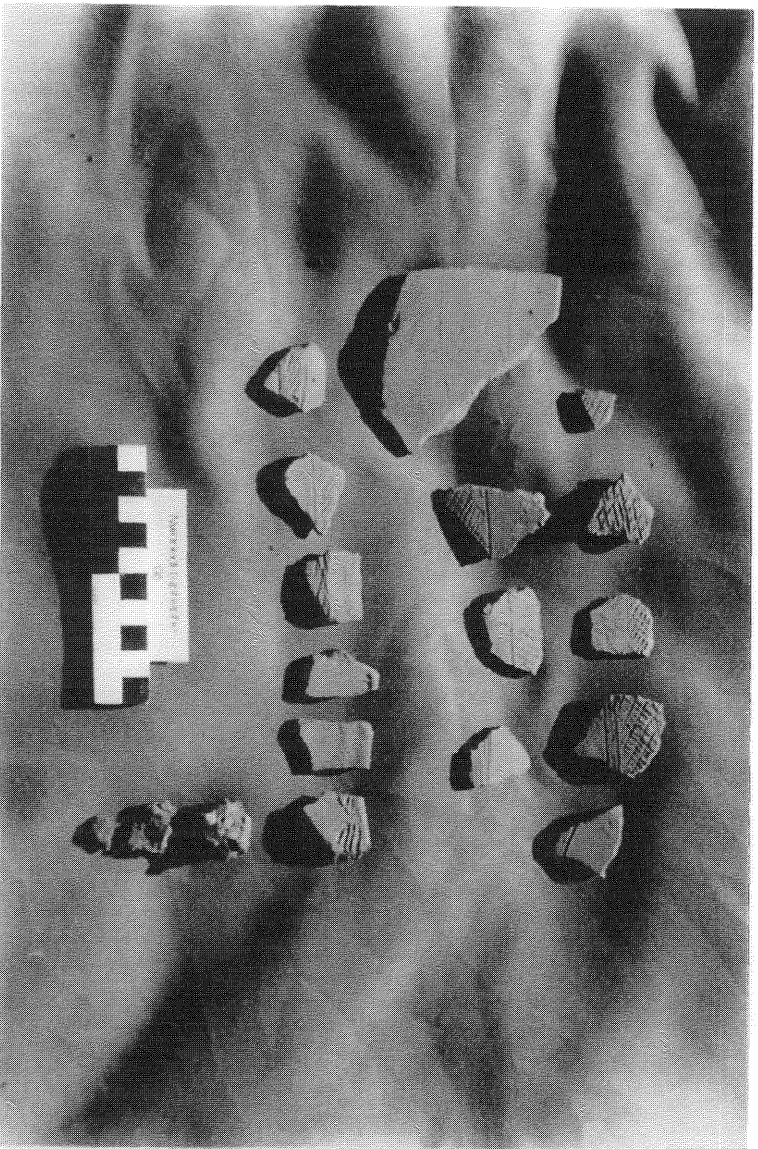


Plate 9. Pottery Fragments

4. Mokovhawabale (reservoir)

This particular hill top has been extensively eroded, and although traces of archaeological remains have been found, these remains are insignificant.

Significance: Low.

Recommendation: *That the reservoir be placed at the western side of the hill top.*

5. Tshivongweni (reservoir and pipeline)

SITE 1

Coordinates: S22° 34' 08.6" E30° 35' 21"

An archaeological site was located immediately west of the Tshivongweni Township. Cultural remains consist of pottery, middens and hut debris. The pottery tradition (*plate 10*) found here is Khami (15th - 17th century). This site is significant as it probably represents a commoner settlement of the Khami (Zimbabwe) culture.

Significance: High.

Recommendation: *That this site be avoided during construction of the pipeline and not be damaged.*

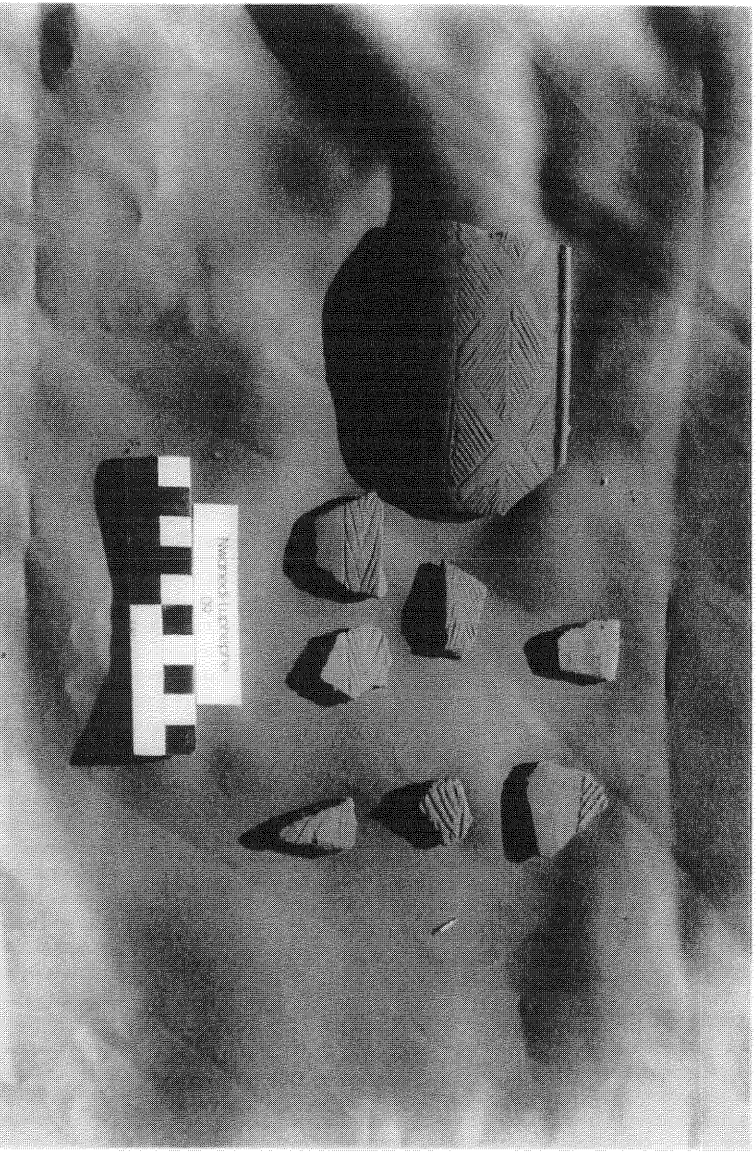


Plate 10. Pottery Fragments

SITE 2

Coordinates: S22° 33' 57.3" E30° 35' 17.5"

An archaeological site was found on the southern slope of Tshivongweni hill. It is in the process of being eroded. The site contains dung and ash deposits, and pottery. A charcoal sample was taken from one of the ash deposits and delivered to the CSIR for C₁₄ dating (plate 11). The pottery (plate 12) has both Khami and Letaba characteristics.

Recommendation: This site is probably higher up the slope than the proposed location of the reservoir, but action should nevertheless be taken not to disturb it.

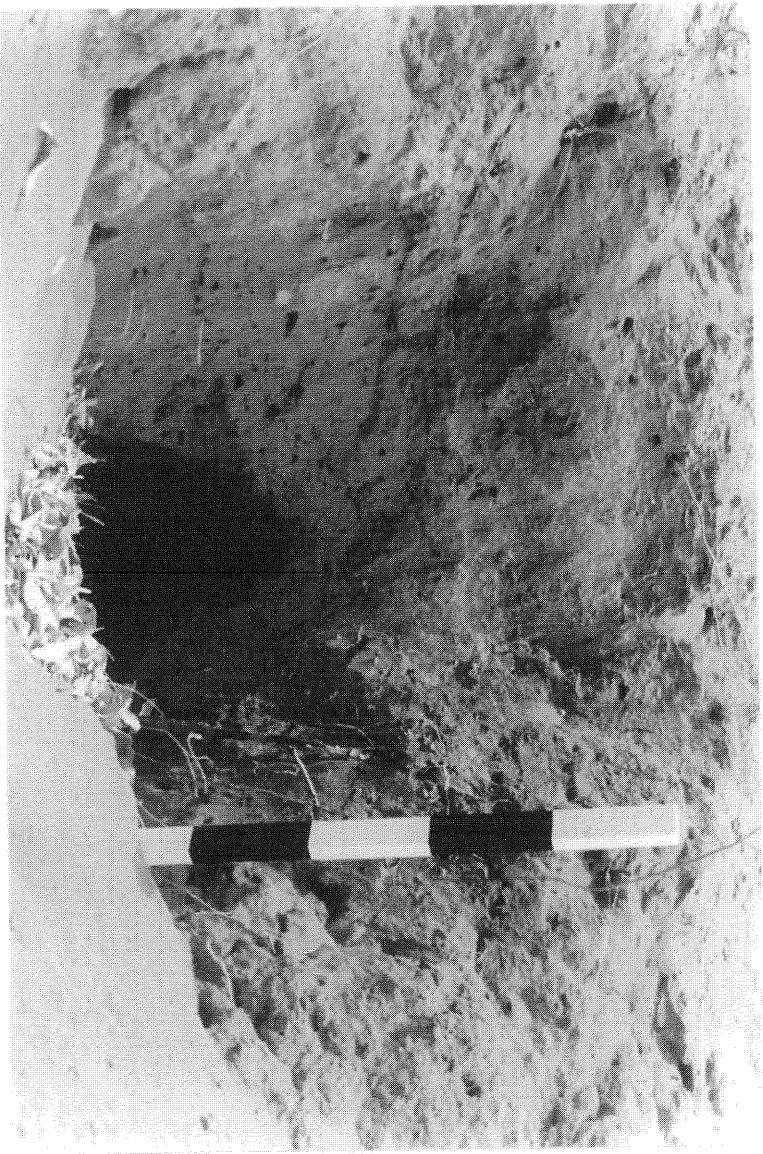


Plate 11. Ash Deposit

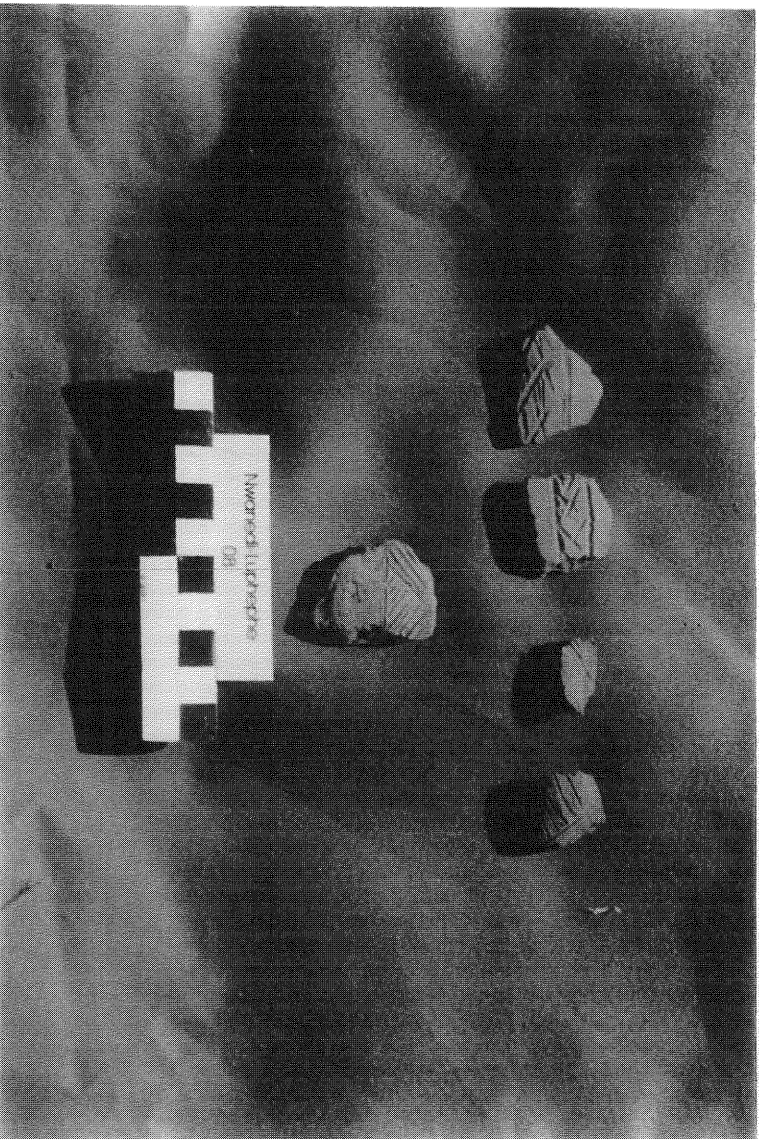


Plate 12. Pottery Fragments

SITE 3

Coordinates: S22° 33' 50" E30° 35' 19.5"

The plateau of Tshiyongweni hill contains archaeological remains dating from relatively recently to pre-colonial times. Although not on route, it is recorded here and *recommended* that it not be disturbed.

6. Tshirunzi (reservoir)

Coordinates: S22° 34' 58.9" E30° 39' 56.7"

The proposed reservoir is located on the plateau (*plate 13*) where a few potsherds were found. The pottery (*plate 14*) has Khami characteristics but due to the low density of remains, the site is not regarded as significant.

Significance: Low.

Recommendation: *That the reservoir be placed on the eastern side of the hill.*



Plate 13. The Hill Top

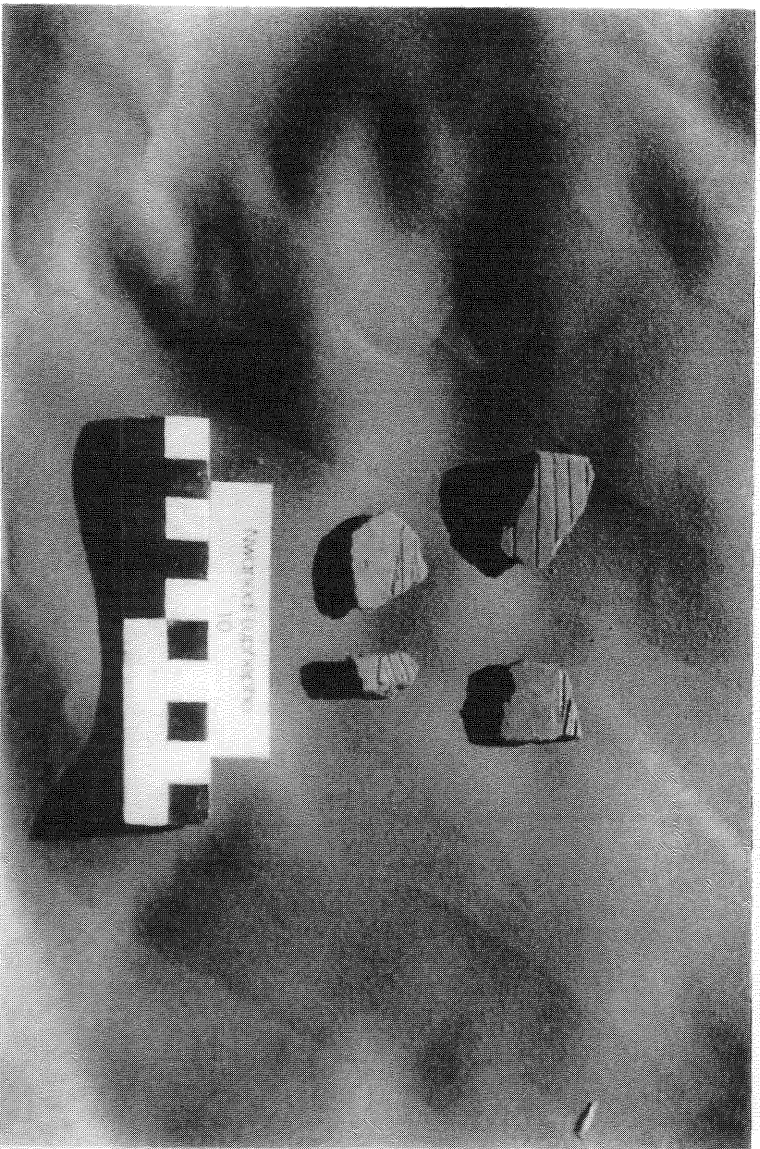


Plate 14. Pottery Fragments

7. Shakadza (reservoir)

Coordinates: S22° 37' 21.4" E30° 33' 38"

S22° 37' 17" E30° 33' 36.7"

An extensive archaeological site is located on the plateau (*plate 15*) which dates from relatively recently to the 15th/16th century. A cattle enclosure could be identified (*plate 16*) and remains of stone-walling occurs (*plate 17*). The pottery falls within the Khami (15th - 17th century) and Letaba (Venda) traditions (*plates 18 & 19*) The northern part where the older deposits seem to occur, has been eroded.

Significance: High.

Recommendations: *That the reservoir be placed on the extreme north-western side of the plateau.*



Plate 15. The Hill Top

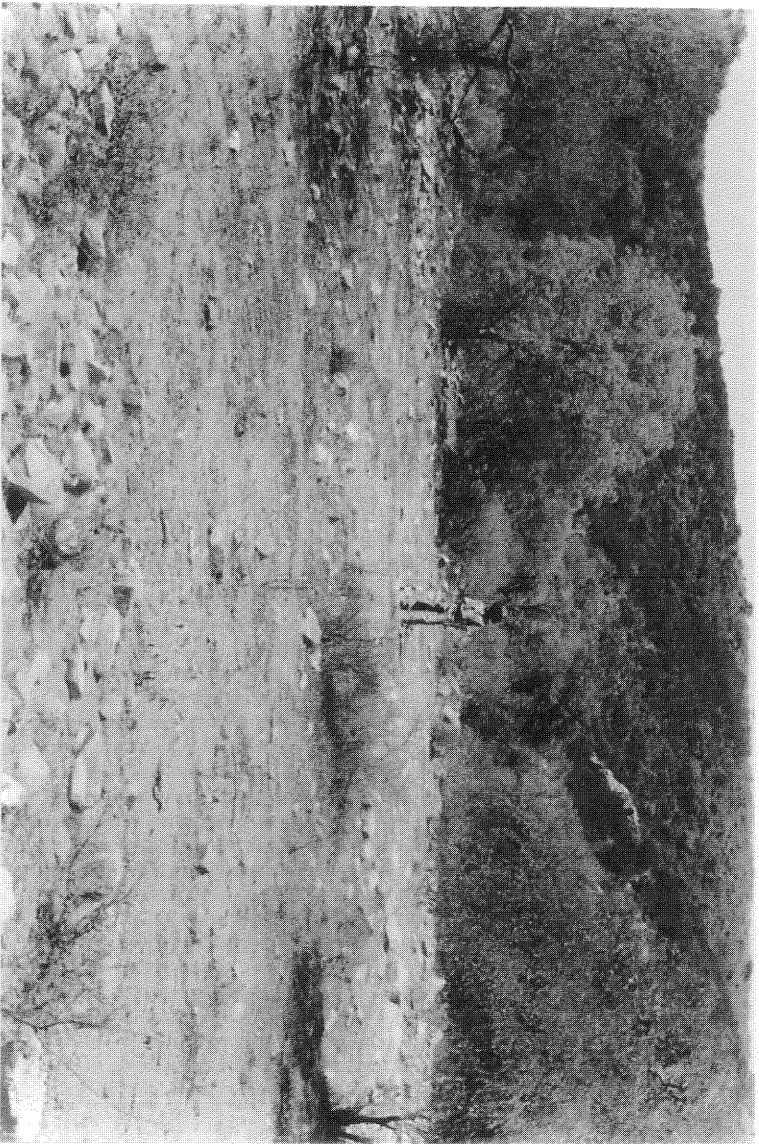


Plate 16. Remains of the Cattle Enclosure

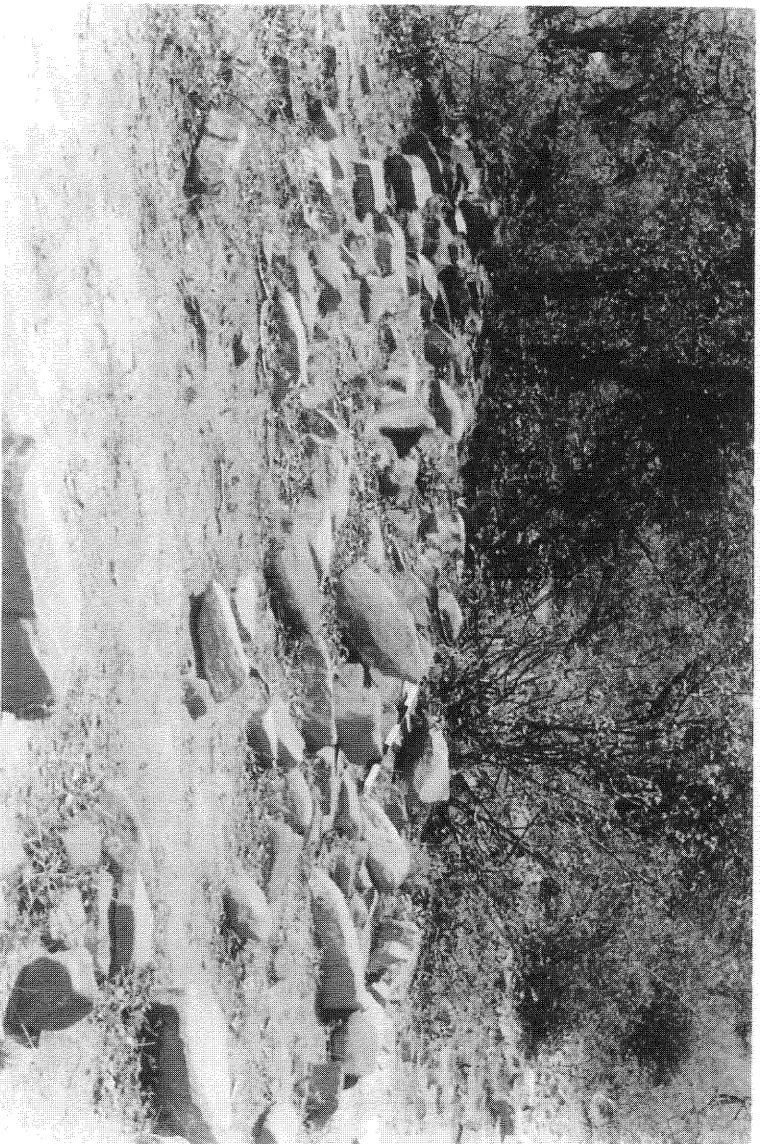


Plate 17. Remains of Stone-walling

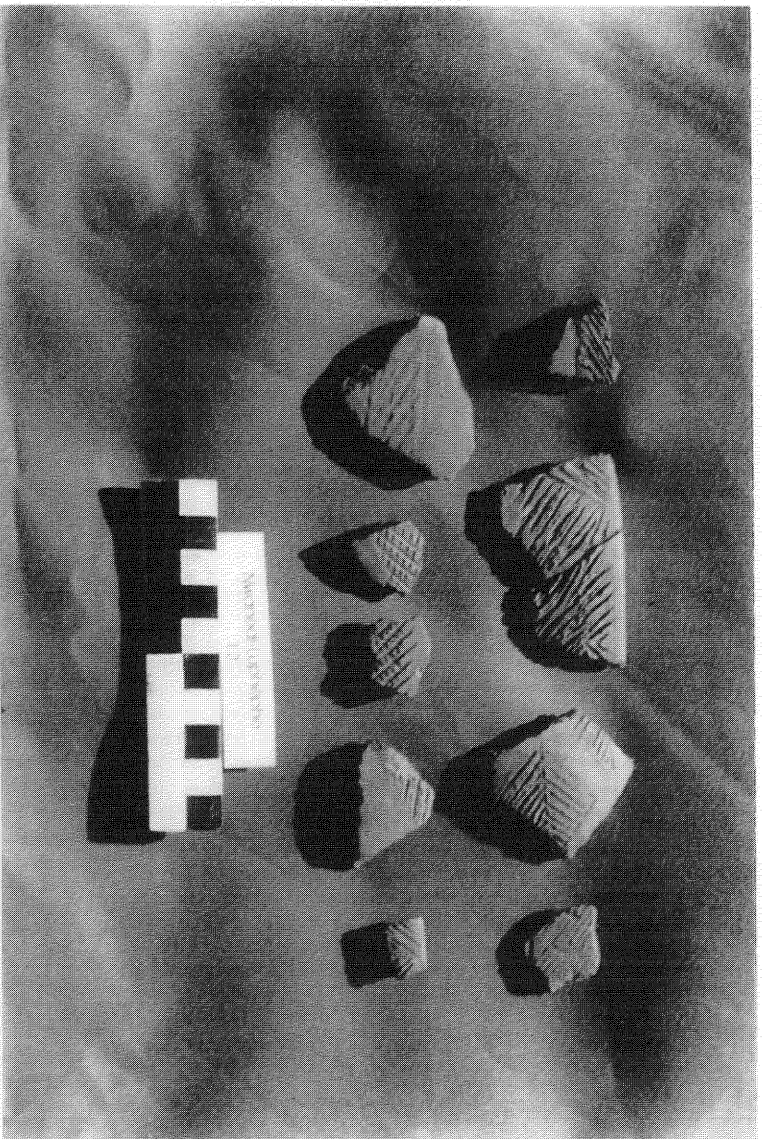


Plate 18. Pottery Fragments

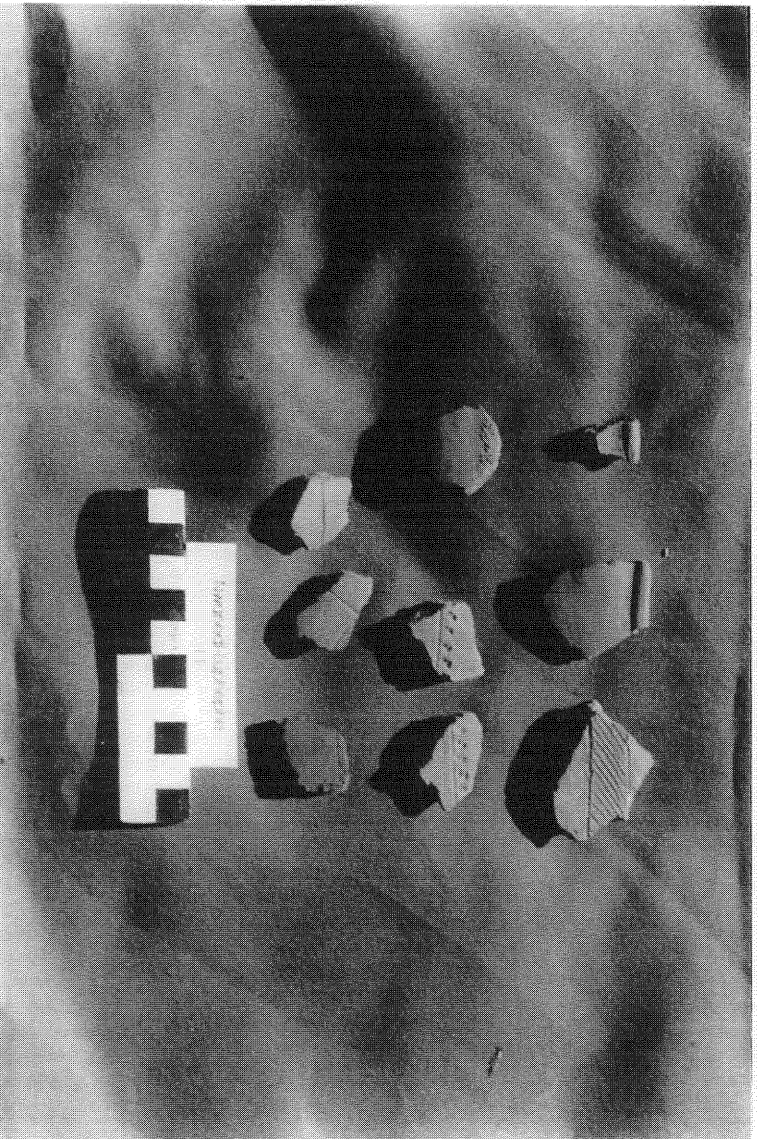


Plate 19. Pottery Fragments

8. Tshokotshoko / Thahari (reservoir & pipeline)

Coordinates: S22° 36' 45.6" E30° 37' 22.3"

The remains of stone-walling (plate 20) is located here and although the ruin was built within living memory, it should not be damaged, but left as part of the heritage of that area.

Significance: Low.

Recommendation: *That the reservoir not be placed in the immediate vicinity of the stone wall and that the pipeline should follow a route within a safe distance.*

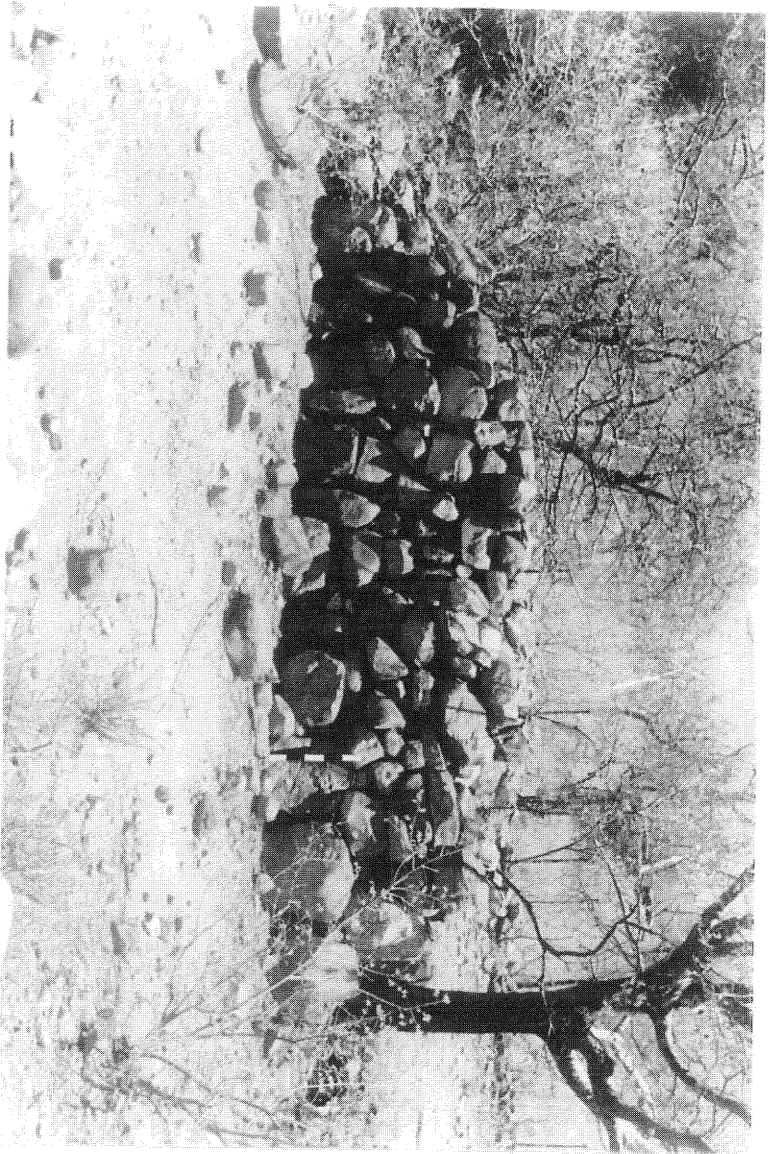


Plate 20. Remains of Stone-walling

9. Tshikotoni (reservoir & pipeline)

A dense concentration of Middel Stone Age material occurs scattered in this area.

Recommendation: The placing of the reservoir and pipeline must be mitigated on site.

CONCLUSION

The so-called Iron Age archaeological profile of the Nwanedi - Luphephe area seems to compare well with what has been described elsewhere for the Zoutpansberg and adjacent regions. Generally, each flat hill top was inhabited during pre-colonial times. Because of the nature and scope of the survey, where one can only work with small samples of surface material, it is likely that earlier Iron Age traditions were not observed due to the fact that they would occur in the lower levels of the cultural deposits, and not because they are absent.

From at least the 11th century then, it appears that there was a sequence of cultural expressions in the area, starting with the Eiland tradition, followed by Moloko, Khami and Letaba (modern day Venda). There seems to have been an interaction between and overlapping of the different cultural groups during the past millennium, as is reflected in the different pottery styles occurring on the same site.

Similarly, the Stone Age sequence is not represented fully due to the nature and scope of the survey.

GENERAL RECOMMENDATION

It is essential that the archaeologist advise on the exact location of each reservoir and route of the feeding main and gravity pipeline where archaeological remains have been identified, on site. The non-disturbance option must be followed wherever possible. Should circumstances require a disturbance to a site, the impact must be mitigated and provision may have to be made for the costs of a Phase 2 excavation. A permit to destroy an archaeological site will be given to the developer only if satisfactory mitigation has been completed.

REFERENCES

- Loubser, J. H. N. 1991 *The Ethnoarchaeology of Venda-speakers in Southern Africa*.
Navorsinge van die Nasionale Museum Bloemfontein. Vol 7, Part 8.



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October 1997

**NWANEDI - LUPHEPHE ENVIRONMENTAL
IMPACT ASSESSMENT:
ARCHAEOLOGICAL SURVEY**

P H A S E 2

EXECUTIVE SUMMARY

Method of investigation

Reconnaissance by vehicle and by foot. GPS readings were taken of significant sites and photographs were taken of sites and small finds and included in the report.

Findings

Nine (9) sites with significant archaeological remains were located as described in the report. The cultural sequences range from approximately the 11th century Eiland tradition to recent Venda habitation.

Conclusion and recommendations

It was concluded that the assessment of the significance of the archaeological remains range from low to medium and high, based on the condition of the site and the historical value of the cultural sequence represented there. A brief description and assessment was given of each individual site in the report.

It is recommended that the placing of each reservoir be mitigated on site before final site plans are drawn up. Mitigation for Phase 2 excavations may be required in two instances, namely, (1) the pipeline between Gwakawani and Matatani, and (2) the reservoir at Tshikotoni.



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October 1997