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**GARDENER ROSS GOLF AND COUNTRY ESTATE
ON THE FARM KNOPPIESLAAGTE 385 JR
GAUTENG PROVINCE**

Phase II Archaeological Excavations and Documentation
(Permit Number 80/04/11/007/51)



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EXECUTIVE SUMMARY

During the Heritage Scoping and associated heritage-related specialist studies undertaken for the proposed Gardener Ross Golf and Country Estate on Portion 332 of the Farm Knoppieslaagte 385 JR, Gauteng Province, thirteen sites of cultural heritage value were identified. A recommendation was made that the sites influenced by the development be documented, and that an application could afterwards be submitted to SAHRA for destruction permits to demolish these sites. The Developer agreed to implement this recommendation and appointed Matakoma Consultants to manage the mitigation process for the heritage sites.

Since the Gardener Ross Golf and Country Estate is being developed in three phases, a decision was made to first document those which would be impacted on by Phase 1 of the development. Sites affected by Phases 2 and 3 would be attended to at a later stage.

Documentation of the heritage sites affected by Phase 1 of the Estate's development was completed by February 2005 and an application for a destruction permit was lodged with the Provincial and National Offices of the South African Heritage Resources Agency. The destruction permit for these sites was issued in April 2005, upon which the sites were destructed to accommodate the development and construction activities.

This report deals with the mitigation work conducted at the sites deemed most significant, as recommended in the initial Heritage Assessment. Mitigation work was conducted on two archaeological sites and the remains of the historical mining activities. All these sites are located within the area set aside for Phases 2 and 3 of the development of the Gardener Ross Golf and Country Estate.

The **Terms of Reference** were as follows:

1. Document and sample site GR003. This will include scaled layout maps, test excavations and shovel testing on the main site to be destructed.
2. Document and conduct a surface collection of lithics at site GR006.
3. Document and map all trenches and shafts associated with the mining activities situated on the eastern slope of the Black Reef outcrop forming the eastern boundary of the development.

From the Terms of Reference the following **Aims** were envisaged:

1. GR003 - Collect a representative sample of cultural remains to identify the occupants of the Iron Age Site.
2. GR003 – Map and document layout of each settlement unit.
3. GR003 – Collect a representative sample of cultural remains to facilitate further research in future.
4. GR006 – Map and collect all lithics present in the surface scatter for possible future research.
5. Historical Mining Area – Map and document all human-made disturbances associated with the mining activities.

FINDS

GR006 – Stone Age Site

It is evident from the variety of material that manufacturing of artefacts occurred on the site. The most common raw materials used were quartz, hornfels and cryptocrystalline silicas. It seems that the assemblage mostly dates to the last 2000 years and can be classified as Classic Wilton.

Mining Activities

Historical documentation on the mining activities on the farm Knoppieslaagte shows that this mine was not intensively mined due to the low grade of gold deposits that occur in the Black Reef Formation.

GR003 – Iron Age Complex

The stone-walled sites contain a single village horizon and was inhabited for a short period. The ceramics excavated have strong characteristics of what archaeologists refer to as Moloko pottery. The term Moloko is used to refer to the Late Iron Age ceramic style that is commonly associated with the broad Sotho-Tswana language cluster, which includes North Sotho, South Sotho and Tswana (West Sotho). The Moloko sequence can be divided into two phases, namely an Early and a Late Moloko. A prominent difference between the two expressions is an increase in the use of stone walling and a change in settlement location. Stone-walled sites like GR003 are associated with the Late Moloko and post-date AD 1600.

Around AD 1750 the Sotho-Tswana aggregated in large megasites with a preference for elevated positions like hilltops, saddles and spurs. Based on settlement size and location, it can therefore be argued that site GR003 most probably dates to the period between AD 1640 and AD 1750.

The excavated material, together with field notes, photographs and documentation of the sites, will be curated by the Museum of Anthropology and Archaeology, University of South Africa.

None of the sites documented in this report are of major importance, and consequently, they need not be preserved. The artefacts and other cultural material recovered constitute a representative sample of the temporal contexts of the sites and will suffice for further research.

All the sites located in the area earmarked for development of Phases 2 and 3 of the Gardener Ross Golf and Country Estate have now been documented and interpreted to facilitate possible future research on the collected data. All the relevant information is contained in this report, which will be submitted to SAHRA in support of an application for a destruction permit for these sites.

The following must, however, be noted:

Archaeological deposits occur beneath the surface and although Phase 2 mitigation was conducted on the sites in danger of destruction, further finds might be unearthed during construction. It is advisable that an archaeologist be on site during the destruction of the site with a rescue permit issued for such a circumstance where new cultural material is uncovered. This will enable the collection of cultural material unearthed during destruction.

The National Heritage Resources Act also makes provision for the development of a Cultural Heritage Management Plan for the sites that are not going to be destroyed by the present development. Sites GR003C and GR003D fall outside the proposed development but within the Gardener Ross Estate and by law a Cultural Heritage Management Plan is required for these sites. This management plan must also be incorporated into the Management Plan for the Estate and will add value to the uniqueness of the Gardener Ross Golf and Country Estate.

1. INTRODUCTION

During the Heritage Impact Assessment and associated heritage-related specialist studies undertaken for the proposed Gardener Ross Golf and Country Estate on Portion 332 of the Farm Knoppieslaagte 385 JR, Gauteng Province, two archaeological sites were identified that required investigation and mitigation.

A recommendation was made that the sites influenced by the development be documented and that an application for destruction permits to demolish these sites be submitted afterwards. This recommendation was endorsed by Mrs Mary Leslie and Ms Jennifer Kitto of SAHRA in a letter dated 16 July 2004. It was also indicated that a reconnaissance excavation could only be undertaken with a SAHRA permit, which was subsequently issued (Permit no. 80/04/11/007/51).

2. TERMS OF REFERENCE

1. Document and sample site GR003. This will include scaled layout maps, test excavations and shovel testing on the main site to be destructed.
2. Document and conduct a surface collection of lithics at site GR006.
3. Document and map all trenches and shafts associated with the mining activities situated on the eastern slope of the Black Reef outcrop forming the eastern boundary of the development.

3. SITE NAME AND LOCATION

3.1. National grid reference

1:50 000 Topographical Map - 2528CC Pretoria

3.2. Name of country, state, nearest township, and local name of site

Gardener Ross Golf and Country Estate, Knoppieslaagte 385 JR, Centurion District, Gauteng Province (Refer to Annexure A for locality Map)

3.3. Location above mean sea level

1400 metres

3.4. Environmental description

3.4.1 Geology and soil context (including sub-soils)

All the sites in the area are situated on quartzites of the Black Reef Formation, with subordinate shale. A mantle of sandy hillwash characterizes the soil profile over half of the proposed development, with a thin gravelly hillwash appearing at the surface over the remainder of the site and extending beneath the sandy hillwash elsewhere. The hillwash is underlain by sandy residual granite of a variable degree of ferruginisation, which generally extends to a depth of 2.5 metres.

The soil profile outside the floodplain is generally moist in its uppermost layers, mostly due to perennial rainfall.

3.4.2 Weather conditions

The site is located in the Gauteng Province, characterised by warm, moist summers and cool dry, winters.

3.4.3 Condition in which the site was found

Sites GR003A, B and C, GR006, as well as the prospecting trenches and shafts, are situated in the eastern portion of the Gardener Ross development on a ridge sloping away to the east.

All the sites have been preserved in situ except for a portion of GR003A, which has been disturbed by the mining activities that created the prospecting trenches and shafts, which are also documented in this report. It seems that some of the stone walls have been removed.

4. HISTORICAL BACKGROUND

A search in the National Archives in Pretoria brought to light the following information on the farm Knopjeslaagte 140, now known as Knoppieslaagte 385 JQ.

4.1.1 Old structures on the property

Two maps were found in the archives that did shed some light on the existence of historic structures on the farm prior to 1944. In terms of the National Heritage Recourses Act historic structures older than 60 years are protected by law.

4.1.2 Major Jackson's Intelligence Map (1900)

The map, shown in Figure 1, indicates the presence of a farm homestead in the area of the development. It is, however, difficult to accurately identify the location from the map. During the survey the homestead could not be identified, possibly because it falls outside the survey area.

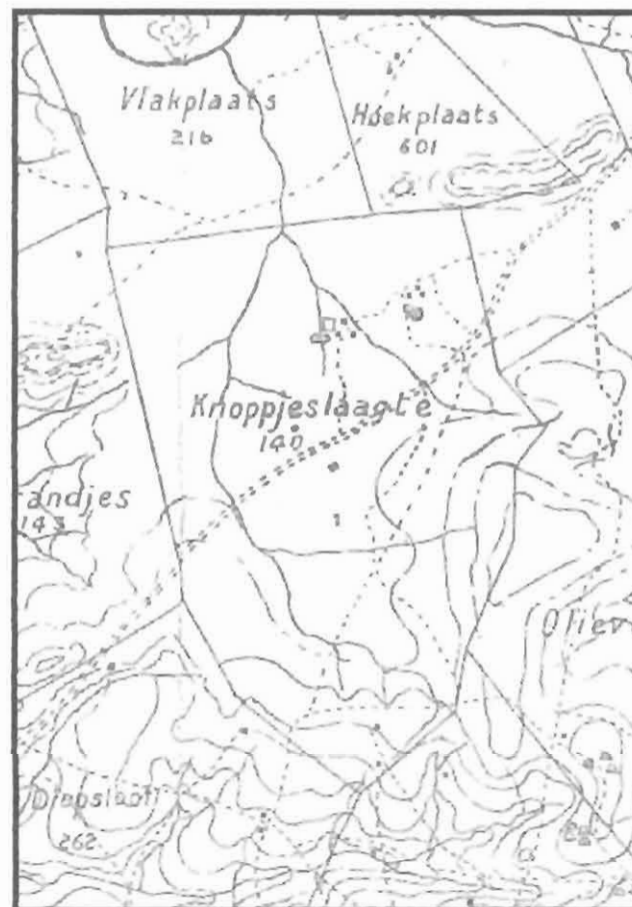


Figure 1 - Jackson's Map of Knopjeslaagte

4.1.3 General Plan of Knopjeslaagte (1909)

The map, section shown in Figure 2, indicates the subdivision of the farm in 1909. The portion indicated as Portion 'D', is portion 6 of the current proposed

development. This portion also includes portions 227 and 228. The map indicates a homestead to the north of the tributary that forms the southern boundary of the development area. This seems to correlate to an extent with the homestead indicated on Major Jackson's map, thus falling outside the development area.

At least one of the low stone-built dam walls in the Swart Spruit is indicated on the map, and is thus older than 60 years.

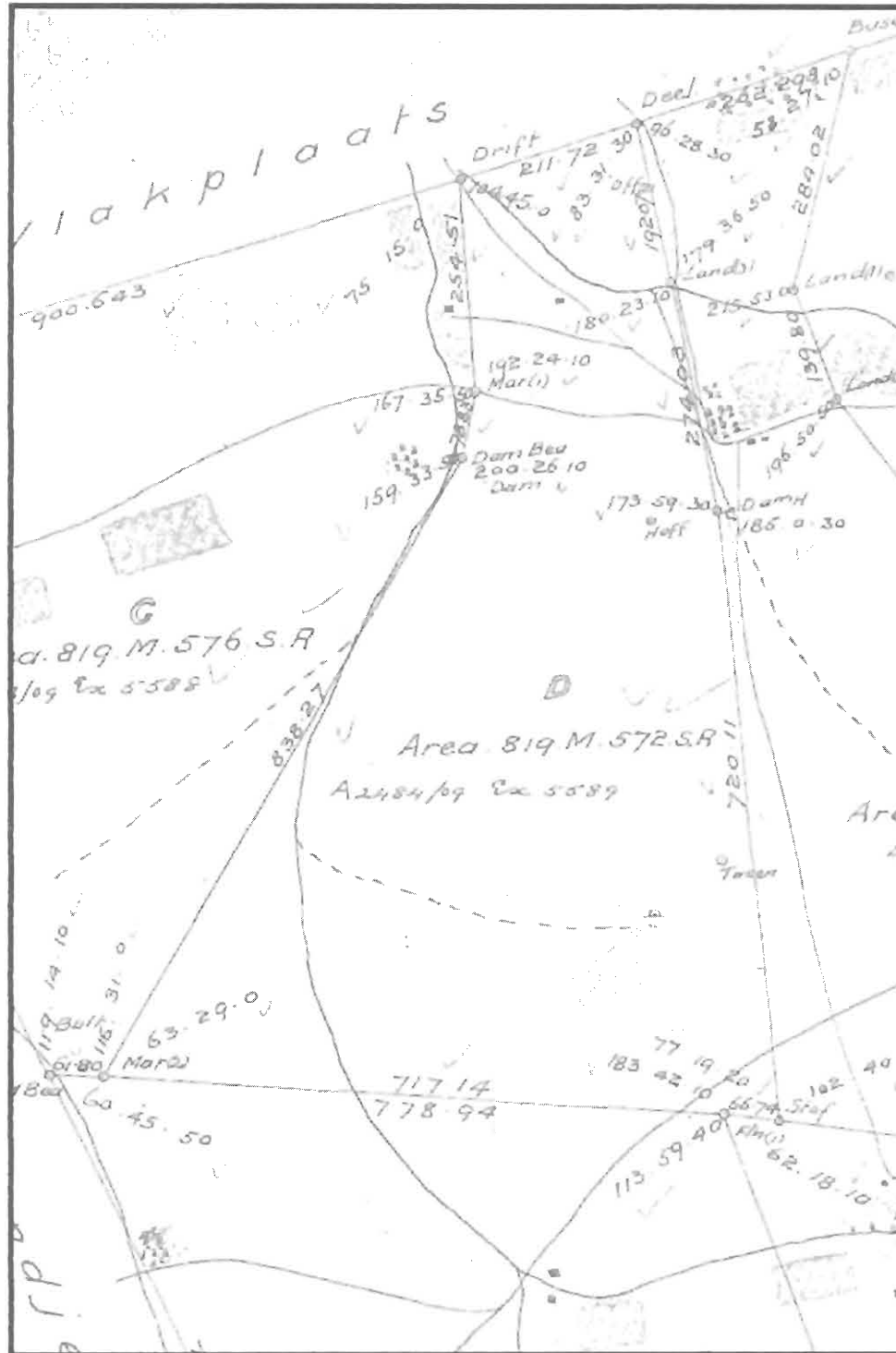


Figure 2 - Knopjeslaagte Portion D Layout

4.1.4 Notes on Knoppieslaagte (140, Pretoria) Government Mining Engineer

This report outlines the mining activities on the farm Knoppieslaagte. The mining of the black reef in the development area commenced prior to 1896 by Henderson's Consolidated Ltd. In April 1911, the mine was reopened by Laly's Gold Mine, Ltd. The mine was taken over on tribute in 1913 by Messrs Green and Kent, former employees of the Pretoria Premier Gold Mine, Ltd. Indications are that they were allowed to mine the reef to assist them in making up wages owed to them by the Pretoria Premier Mining Company.

The map in Figure 3 indicates the extent of the geological sequence of the mining area. This map correlates exactly with the northernmost area of the development. The report mentions the presence of three incline shafts that go down to approximately 200 feet.

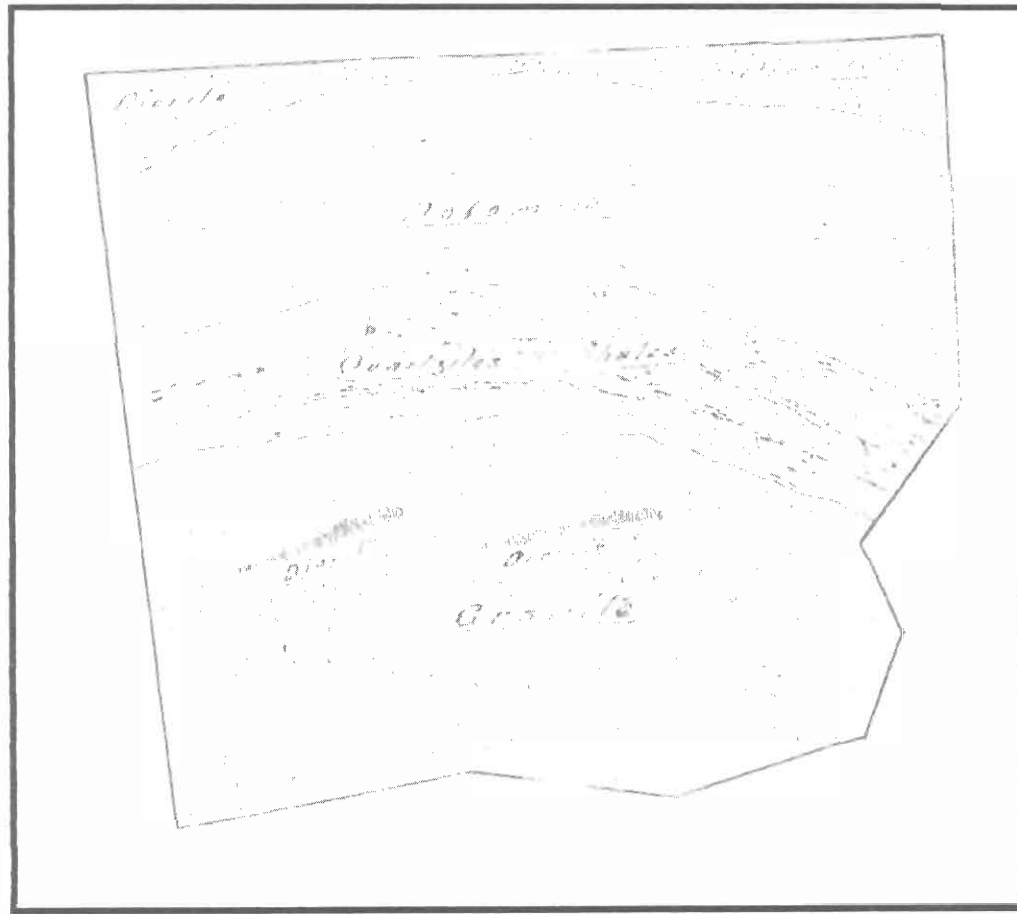


Figure 3 – Geological Map of Black Reef

5. ARCHAEOLOGICAL DISCOVERY

The sites were discovered during the Heritage Scoping done by Matakoma Consultants, for inclusion into the Environmental Impact Assessment's Scoping document for the proposed Gardener Ross Golf and Country Estate. The Heritage Scoping was conducted during February 2004.

5.1 Previous investigations, surveys, excavation, and dates

- February 2004 – Heritage Scoping Document prepared by Matakoma Consultants;
- March 2004 – Test excavations on possible graves close to GR003. Permit No 80/04/03/001/51);
- November 2004 – Documentation of historical structures located in development areas of phase 1 – Gardener Ross Golf and Country Estate;
- January 2005 – Permit application for destruction of historical structures.

6. EXCAVATIONS AND DOCUMENTATION

Aims

1. GR003 - Collect a representative sample of cultural remains to identify the occupants of the Iron Age Site.
2. GR003 – Map and document layout of each settlement unit.
3. GR003 – Collect a representative sample of cultural remains to facilitate further research in future.
4. GR006 – Map and collect all lithics present in the surface scatter for possible future research.
5. Historical Mining Area – Map and document all human-made disturbances associated with the mining activities.

The following sub-sections describe in detail the excavations and documentation of the heritage resources influenced by the development.

6.1. Mining Activities

6.1.1 Introduction

Several historic mine shafts were noted during the Heritage Scoping Report for the proposed Gardener Ross Golf Estate. Subsequent investigation of the finds indicate that the mines represented historic gold mining in the area and were mined during the 1900s by Laly's Gold Mine, Ltd. (Refer to point 4.1.4 in this report). These mine shafts are older than sixty years and are therefore protected by the National Heritage Resources Act of 1999 (Act 25 of 1999). Refer to the Heritage Scoping Report for Gardner Ross Golf and Country Estate. In consultation with SAHRA it was decided that these mine shafts were to be recorded and documented.

Historical documentation on the mining activities on the farm Knoppieslaagte shows that these mines were not intensively mined due to the low grade of gold deposits that occur here.

6.1.2 Methodology

The different shafts were each photographed digitally and on 35mm black and white film and slides as required by legislation and permit requirements. The trenches were plotted on a scaled plan sketch of the site (Figure 4) together with a brief description of each.

The trenches were each numbered individually, each trench receiving a unique number. The sites were numbered in the following manner. The sites found during the initial Heritage Scoping survey were given the prefix of **GR** indicating Gardener Ross. The twentieth site found during the survey consisted of a concentration of trenches and was therefore numbered GR020. Thereafter the different documented trenches in that cluster were numbered numerically, e.g. GR020/1. The other spaced shafts/trenches were numbered as unique finds and were given their own individual numbers, e.g. GR025.

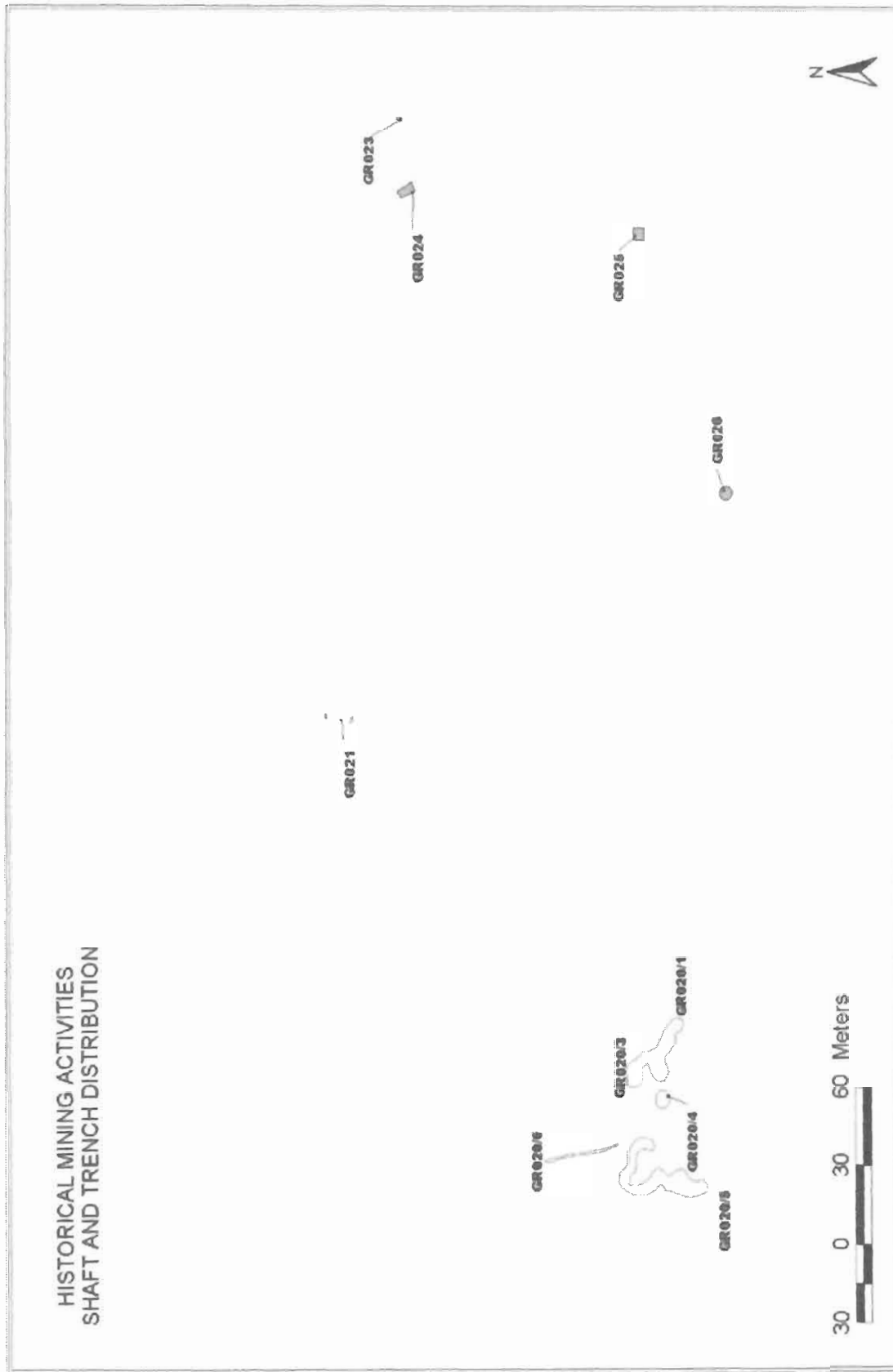


Figure 4 - Scaled plan sketch of trenches

6.1.3 Finds

GR020/1

The trench is almost rectangular in shape, with a concave eastern wall. An average depth of 60 cm was measured. The trench runs from north to south.



Figure 5 - Trench GR020/1

GR020/3

This is a rectangular trench running from north to south. An average depth of 58 cm was measured inclining steadily to the north where the trench splits into a Y. The western wall contains a low retaining stone wall.



Figure 6 - Trench GR020/3



Figure 7 - Retaining wall

GR020/4

The trench had an average depth of 60 cm running from north to south and is oblong in shape.



Figure 8 - Trench GR020/4

GR020/5

The trench has an S shape running from north to south and varied highly in depth but measured roughly 60 cm. The eastern wall consisted of a low retaining stone wall.



Figure 9 - Low retaining stonewall

GR020/6

The trench is rectangular in shape running from north to south. The trench has an average depth of 59 cm.



Figure 10 - Trench GR020/6

GR021

The trench also runs from north to south but is slightly deeper than at GR020. The trench measures 85 cm deep in the northern corner.



Figure 11 - Trench GR021

GR023

This trench is almost circular in form and is situated close to a shaft due south of trench GR024. The trench is approximately 55 cm deep.



Figure 12 - Trench GR023

GR024

The shaft is orientated from north to south. A trench is leading towards the shaft and is about 40 cm deep. The trench declines at 35° angle ending up in the shaft. The entrance to the shaft is 1x1 metres. The shaft is 4m deep.



Figure 13 - Shaft GR024



Figure 14 - Entrance to Shaft GR024

GR025

The shaft is square and is 1 metre deep.

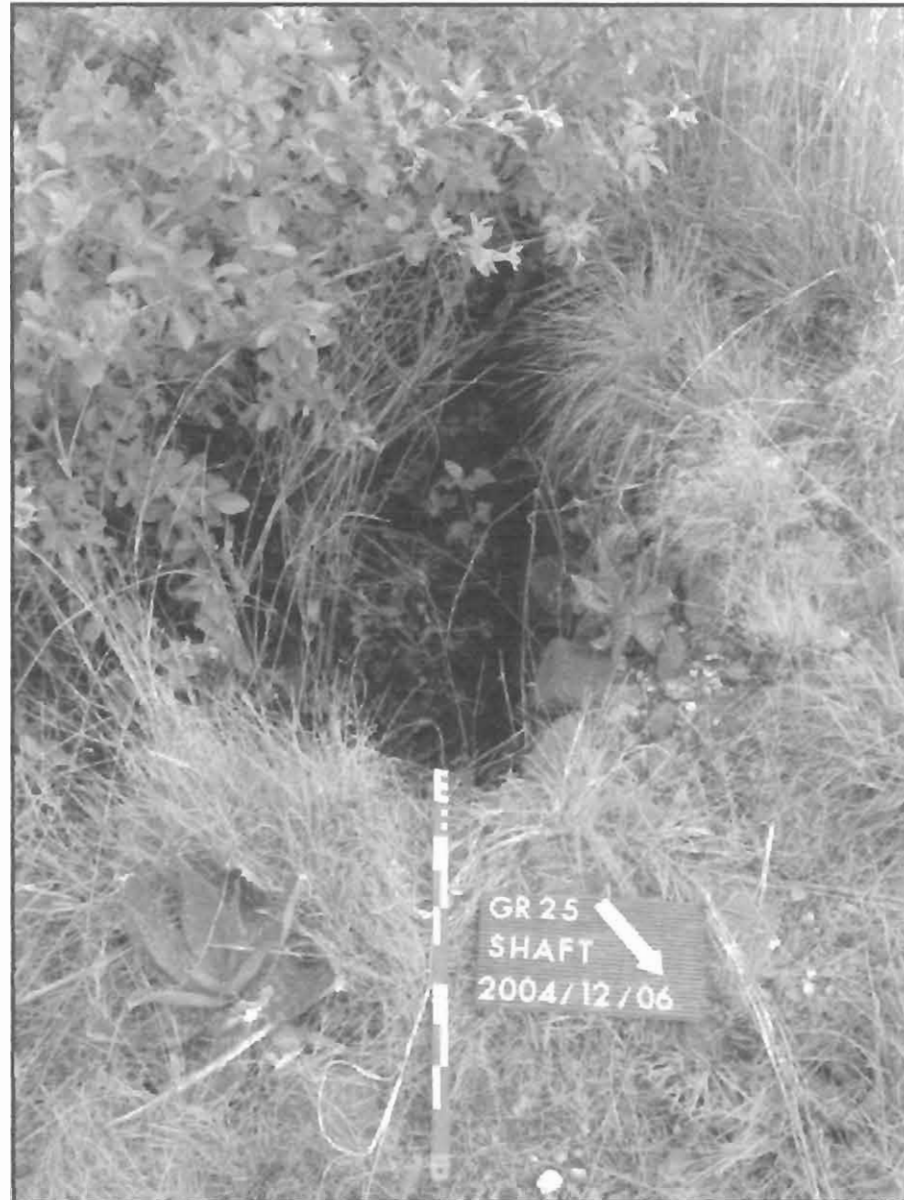


Figure 15 - Shaft GR025

GR026

The shaft is also square and is 5 metres deep.



Figure 16 - Shaft GR026

6.2. Iron Age mitigation

6.2.1 Introduction

A large stone-walled site was discovered on a low ridge (Figure 17) during the Heritage Scoping for the proposed Gardener Ross Golf and Country Estate. Subsequent investigation of the cultural remains (mostly surface ceramics) and layout of the stone-walled site indicated that the ruin most probably represented the remnants of a Late Iron Age settlement. The site is therefore protected by the National Heritage Resources Act of 1999 (Act 25 of 1999). (Refer to the Heritage Scoping Report for Gardener Ross.)

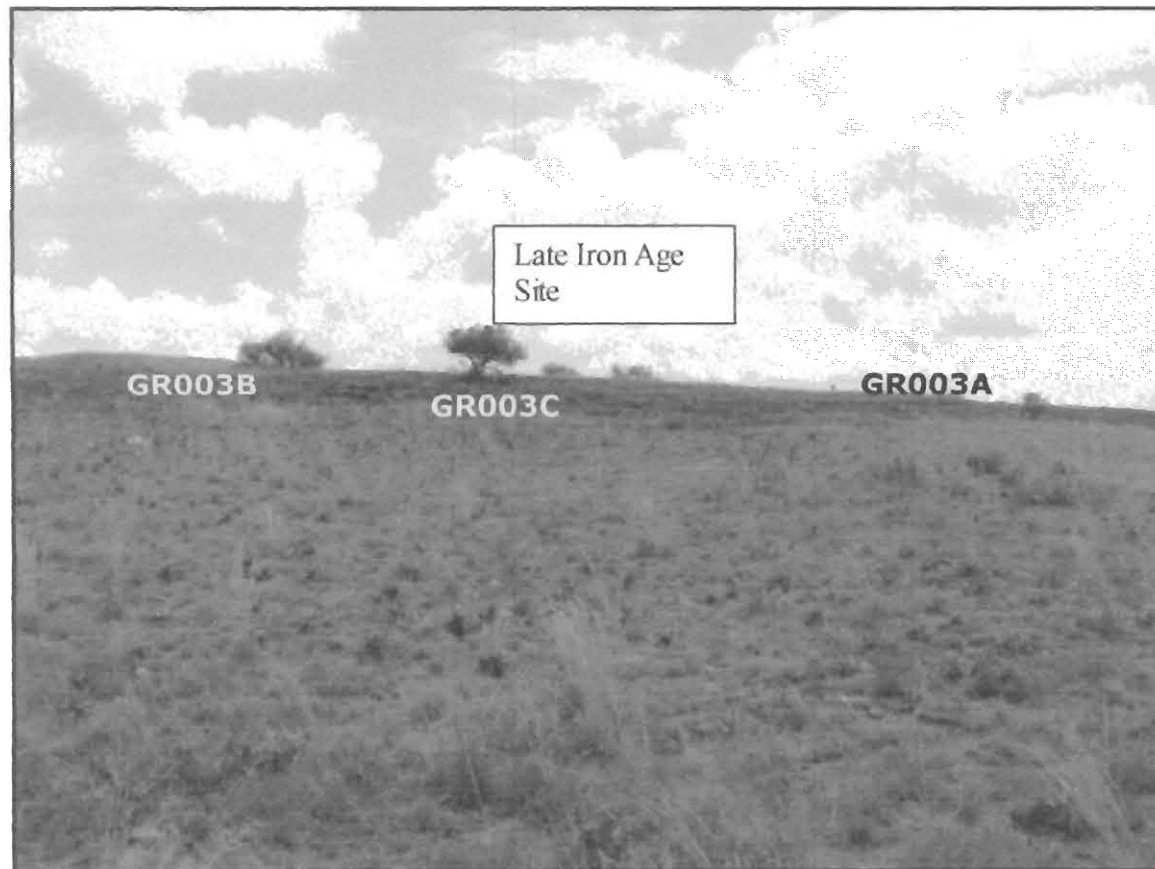


Figure 17 - Location of Iron Age Site on low ridge

In consultation with SAHRA it was decided that the site needed to be documented and sampled through small test excavations.

6.2.2 Statement of archaeological problems that may be resolved through excavation

*The aim of the excavation at **GR003A** and the surface collection at **GR006** is to gather as much data as possible for future reference and study before these sites are impacted upon by the proposed development.*

6.2.3 University library, museum, or department where field records are on file

The records and artefacts will be stored with the Museum of Anthropology and Archaeology, University of South Africa

6.2.4 Methodology

The stone-walled site consisting of four separate settlement units, **GR003A-D**, was plotted on a scaled plan sketch (Figure 18). Several features were identified and also plotted on the scaled plan sketch. An area to the east of **GR003A** (Figure 19) showed signs of severe disturbances by the earthworks in the area. The specific area was void of any surface features or stonewalling.

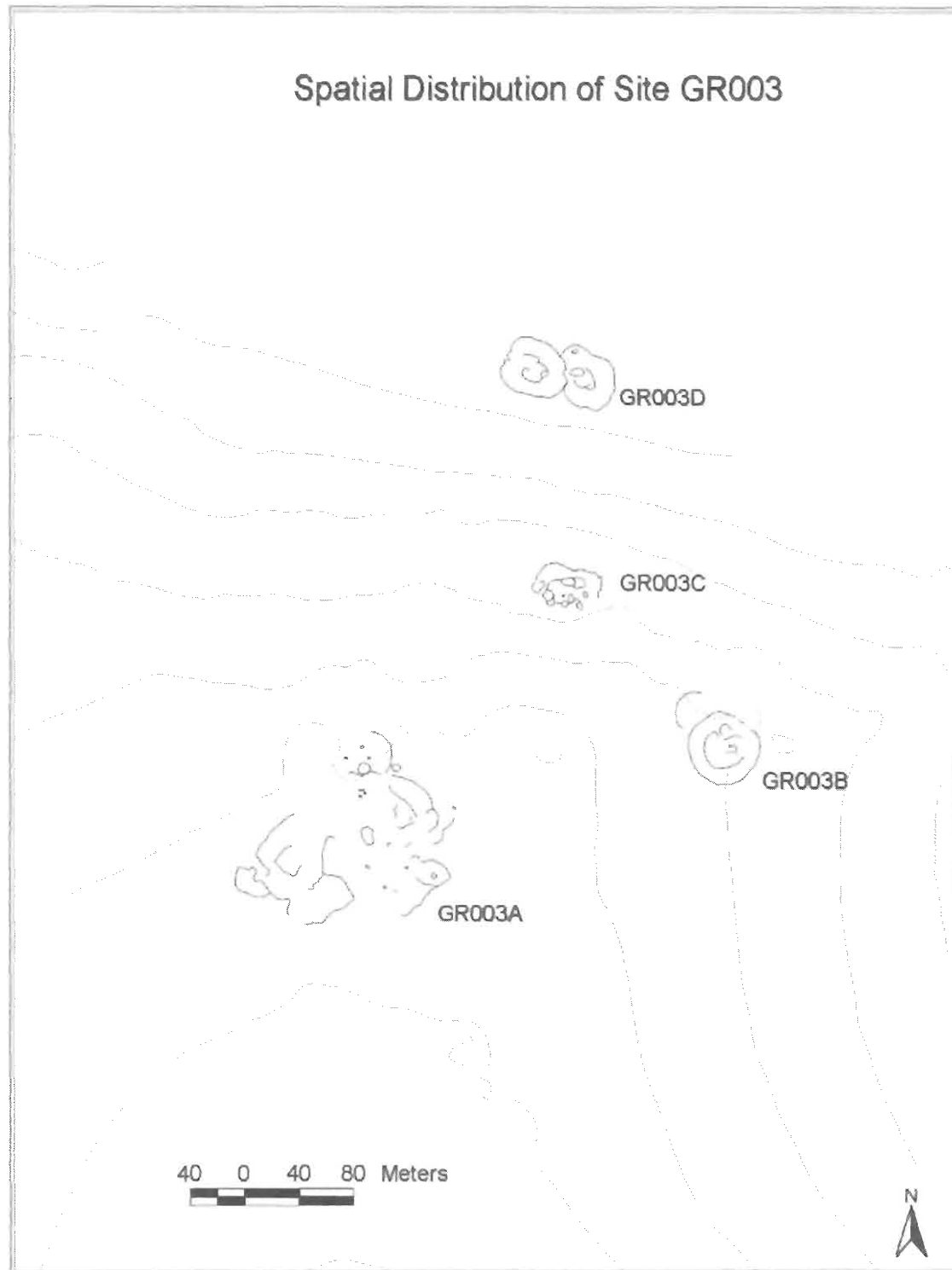


Figure 18 – Spatial Layout of settlement units

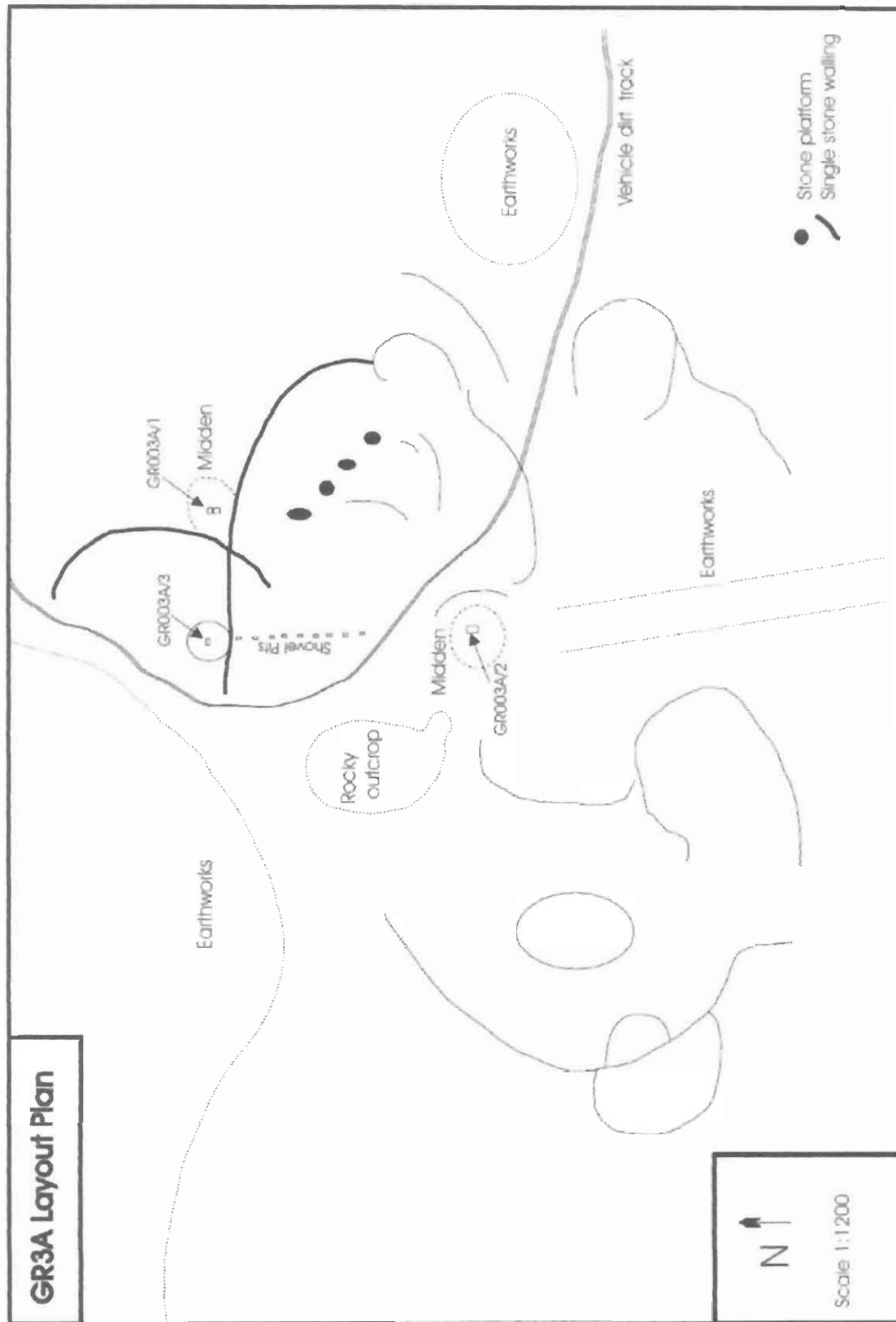


Figure 19 - Layout plan of Stone Walled Site GR003A

Several shovel test pits were dug in the disturbed area in order to reveal any subsurface features (Figure 19).

Two small excavations were conducted in two separate ash middens (GR003A/1 and GR003A/2). A third excavation (GR003A/3) was done inside a lone standing scallop close to the outer wall (Figure 19). This was done in order to shed light on the spatial layout of the site.

The surface of the excavated blocks was swept and documented as layer 0. Thereafter excavations were done in arbitrary layers of 10 cm each within identified features, and documented numerically. All the material excavated was screened with a 2 mm and an 8 mm mesh. Finds were bagged and catalogued. Each layer of each excavation was photographed digitally on 35 mm film, black and white film and slides as required by legislation and stipulated in the permit requirements.

The sites found during the initial HIA survey were given the prefix **GR** indicating Gardener Ross. The different excavations were numbered individually, each receiving a unique number. The excavations were numbered as follows:

- Eastern ash midden – GR003A/1
- Western ash midden – GR003/2
- Trench inside stone structure – GR003A/3

Other associated stone-walled settlements were also given the GR003 prefix and numbered alphabetically from B to D. Thus the site distribution in relation to GR003A is as follows: (refer to layout plan Figure 18.)

- GR003B – Situated 200 metres to the northeast of GR003A
- GR003C – Situated 160 metres to the north-northeast of GR003A
- GR003D – Situated 280 metres to the north-northeast of GR003A

Only site GR003A was excavated as sites GR003B, GR003C and GR003D fall outside the development area. These sites were, however, documented on scaled plan sketches (Figures 20, 21 & 22)..

These sites consist of cattle pens and a court in the middle of the unit with an outer wall. Based on our knowledge of the layout of the Late Iron Age Sotho-Tswana settlements (Mason 1986; Pistorius 1992), the huts would have been located on the inside of the enclosing outer wall. However, no hut debris was detected during a thorough site survey of the surface of the assumed residential area.

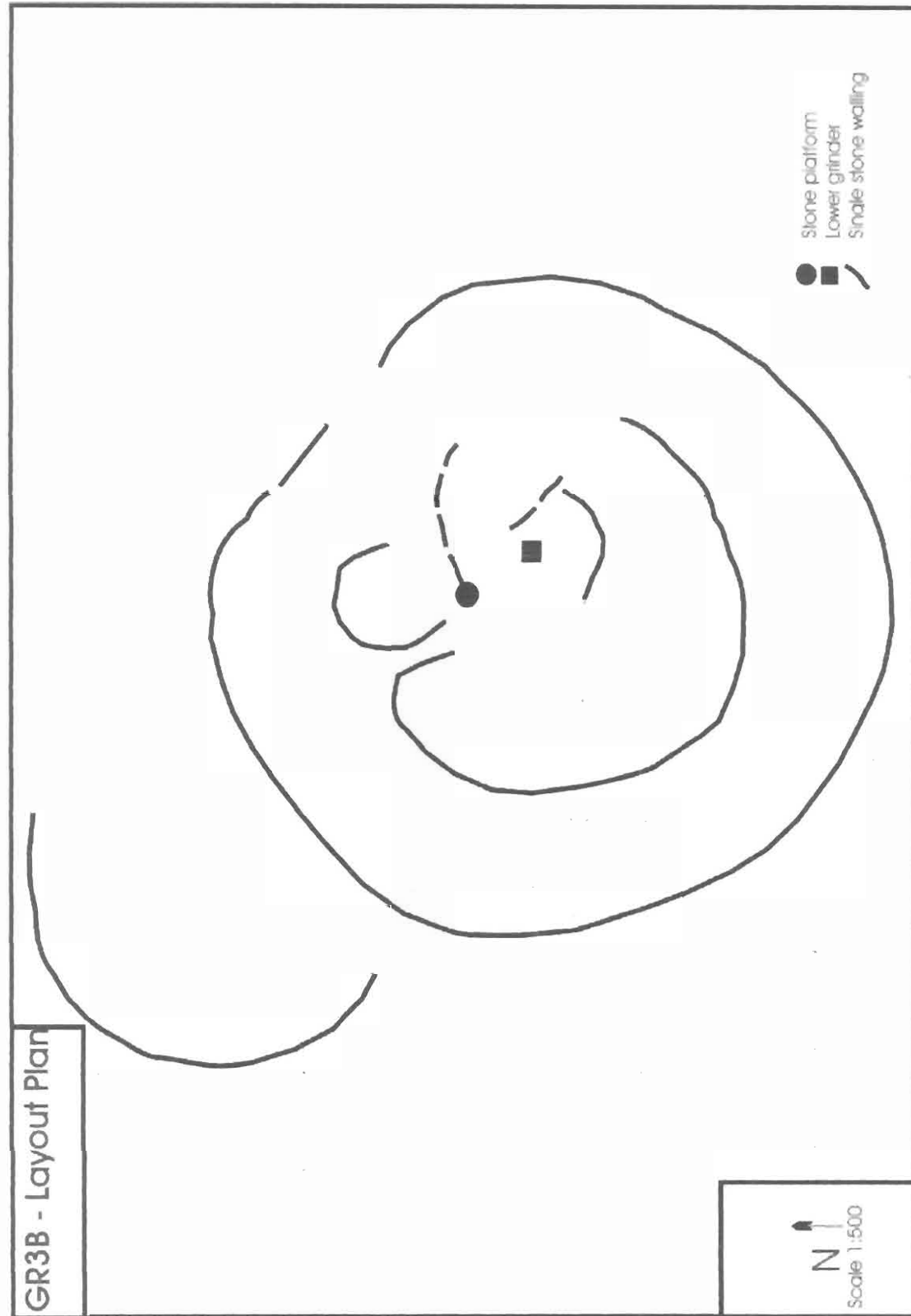


Figure 20 - Layout of site GR003B

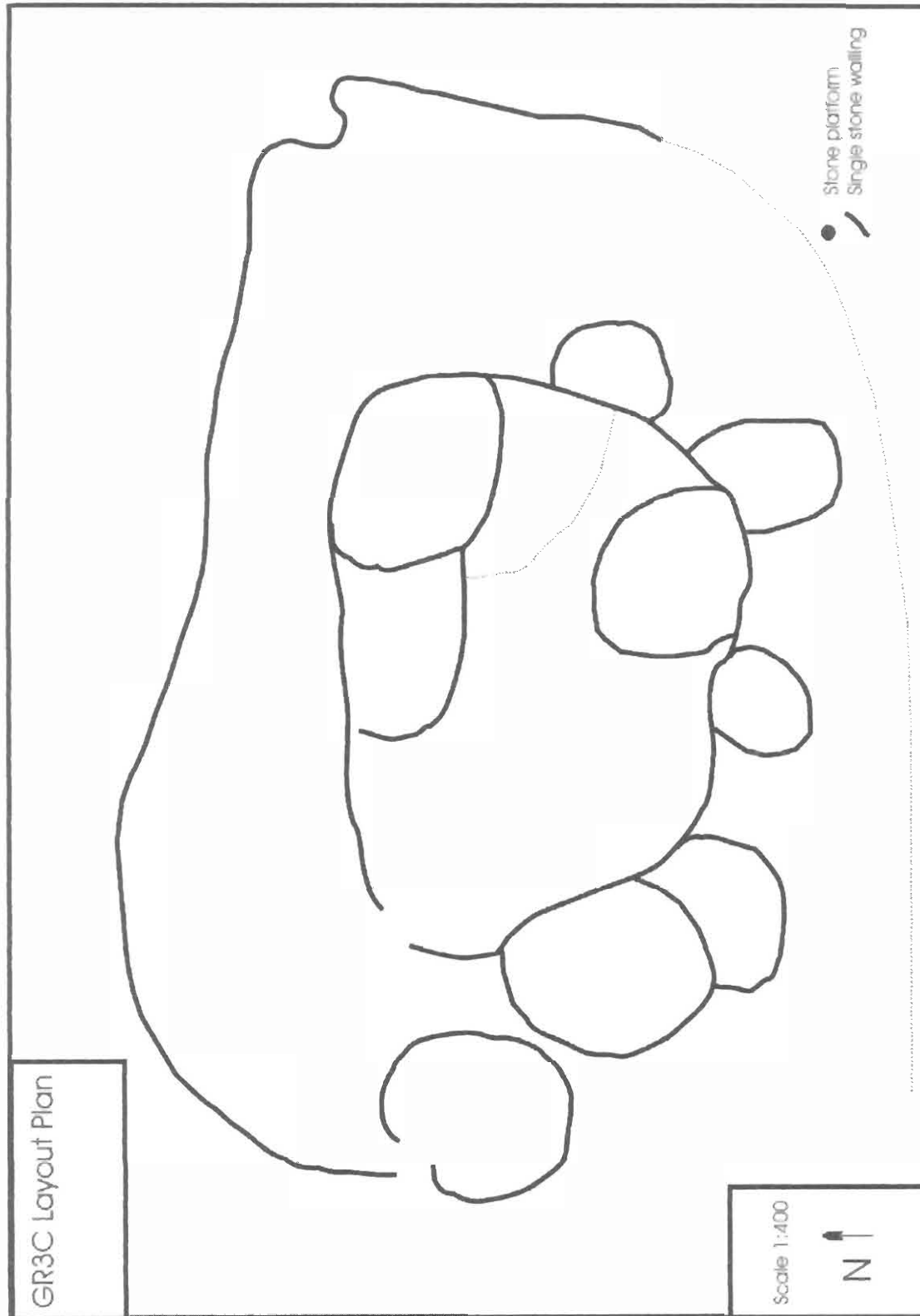


Figure 21 - Layout of site GR003C

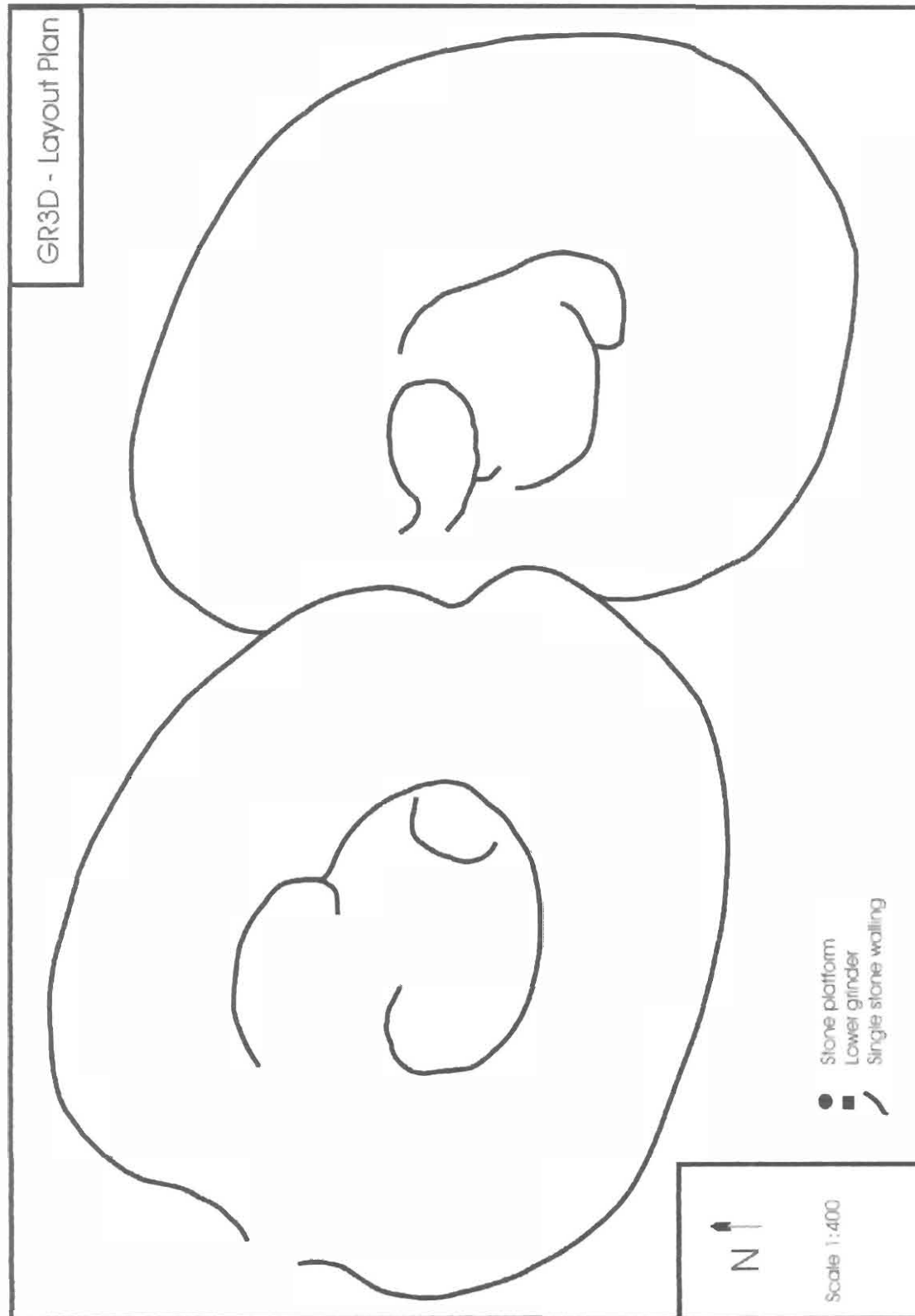


Figure 22 Layout of site GR003D

6.2.5 Excavations

GR 3A/1

The excavation consisted of a 1.50 m x 1 m block in an ash midden. The deposit was not very deep and the excavation was terminated in layer 4 at a depth of 40 cm (Figure 23). The excavation was stopped on top of hard sterile reddish clay. A small test trench within the excavation was done to ensure that no subsequent layers were present underneath the sterile layer.

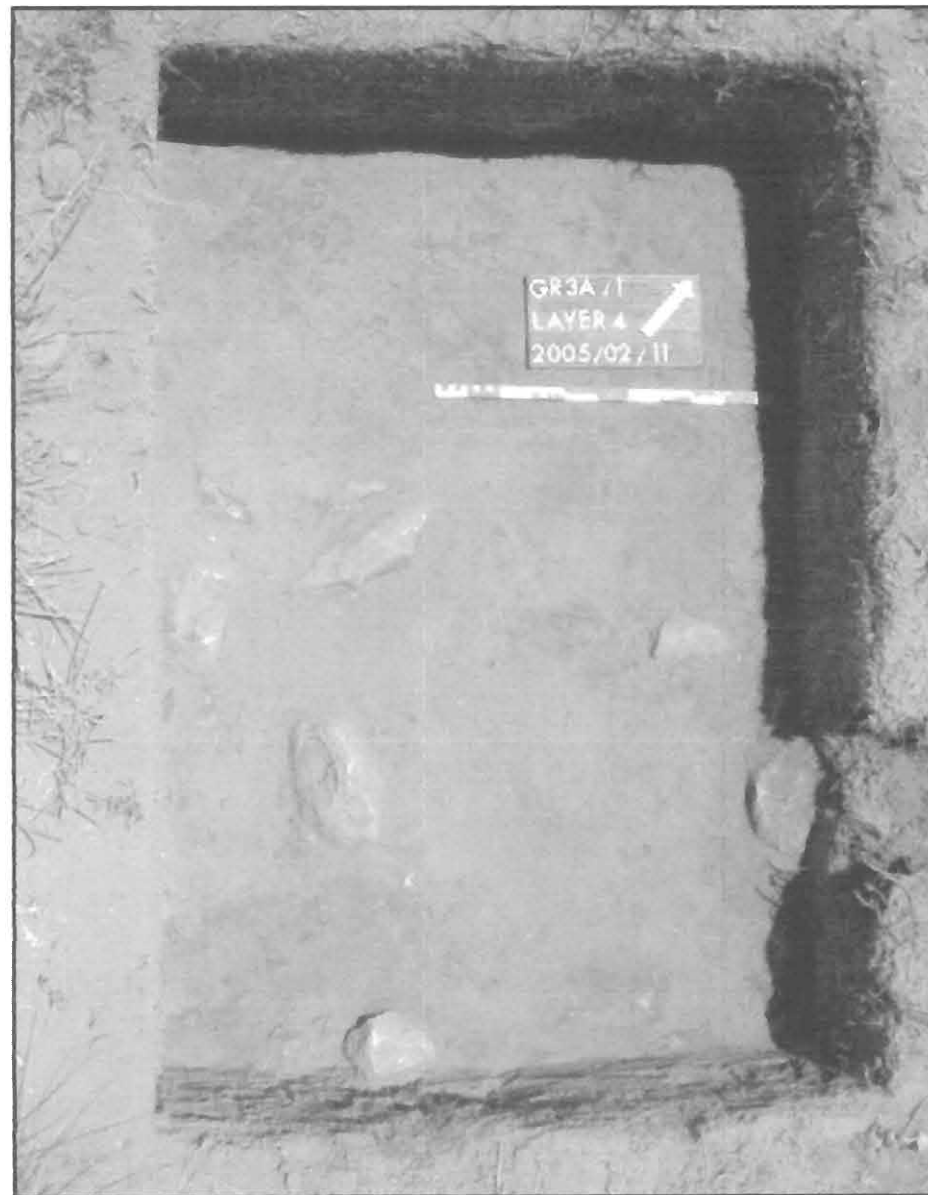


Figure 23 - Sterile red layer in GR 3A/1

Layers 1-3 consisted of fine-grained light ash, with the red sterile clay soil encountered at the bottom of layer 3. Layer 4 consists solely of the red clay soil

(Figure 24). The profile sketch clearly demonstrates the grey ashy deposit superimposed on top of the sterile red clay (Figure 25).

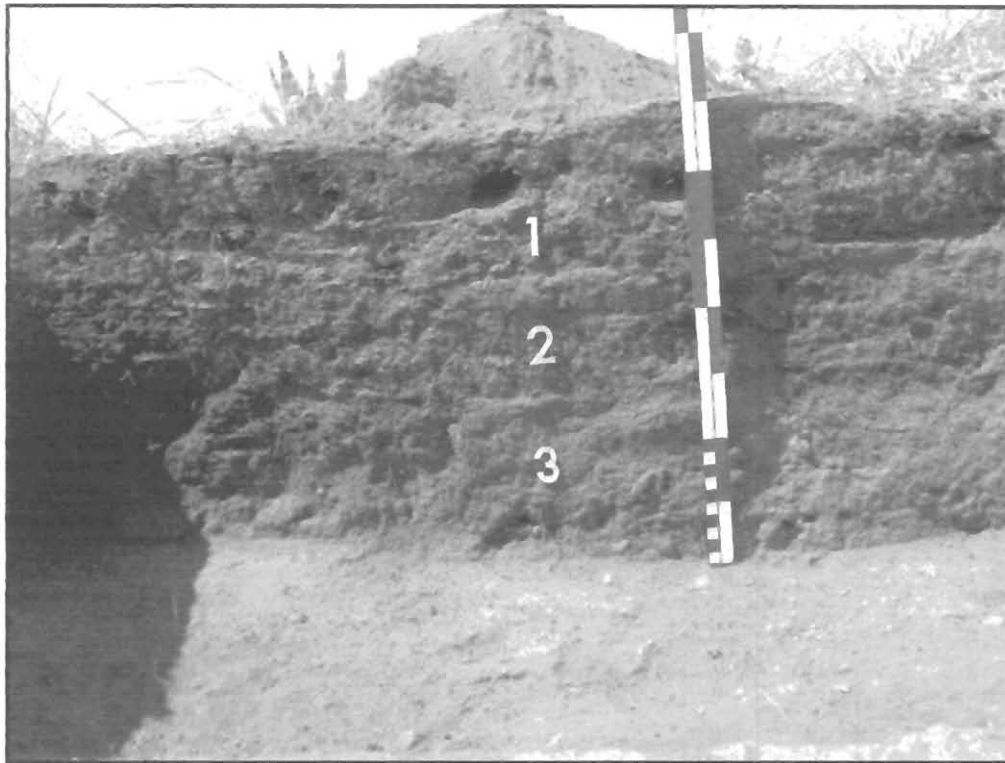


Figure 24 Layers 1 -3 consisting of light ash deposit GR003A/1

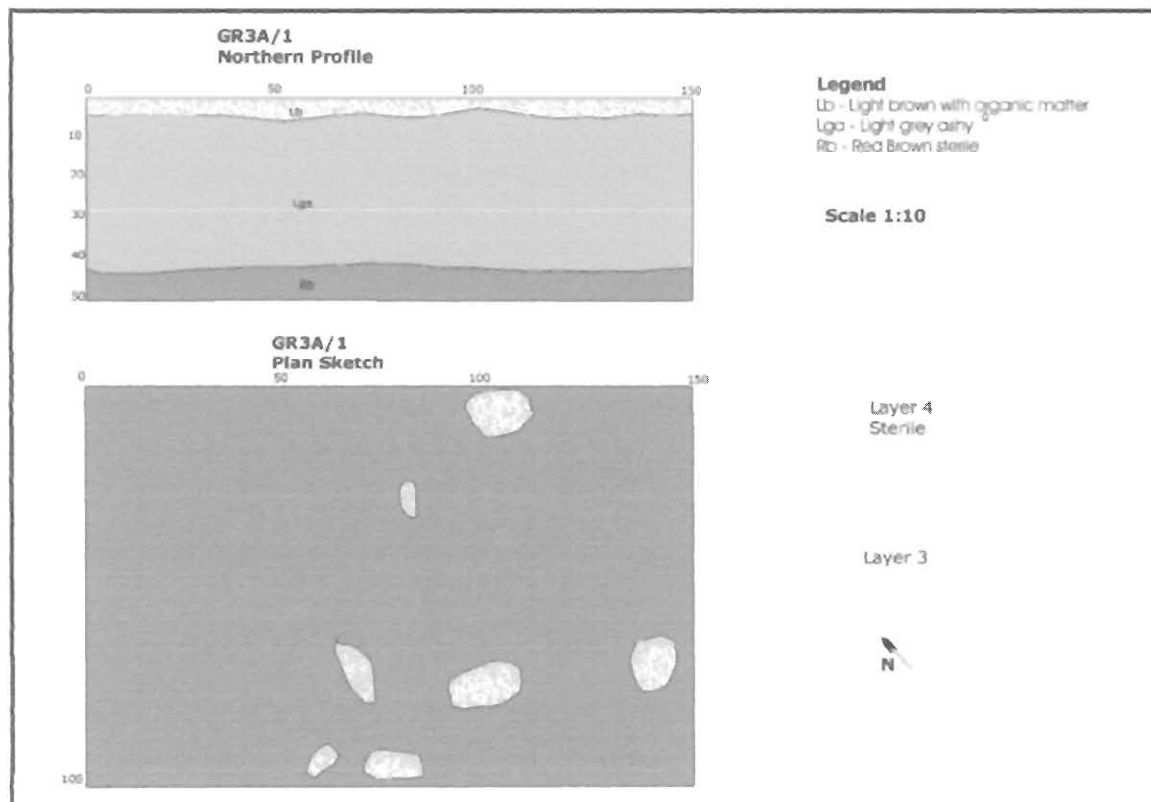


Figure 25 - Northern Profile and plan sketch of excavation GR003A/1

Because of the relative richness of the deposit the excavation was extended in a southeasterly direction by means of a 1x2 metre block (Figure 26). This excavation was named GR003A/1 EXT.

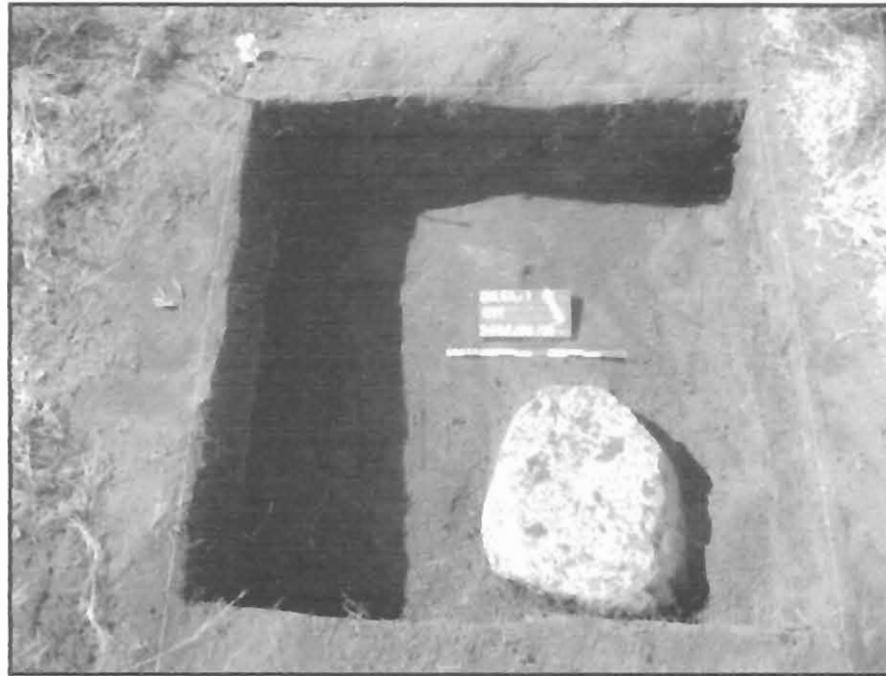


Figure 26 - Extension of excavation GR003A/1

GR003A/2

Excavation GR003A/2 was a 1x1 m block cutting into a disturbed ash midden. The excavation was situated to cut into the undisturbed deposit.

A small test trench was dug within the excavation to ensure that no subsequent occupation layers occurred underneath the sterile layer (Figure 27). The excavation was terminated in layer 3 where the midden rested on a sterile red clay deposit (Figure 28).

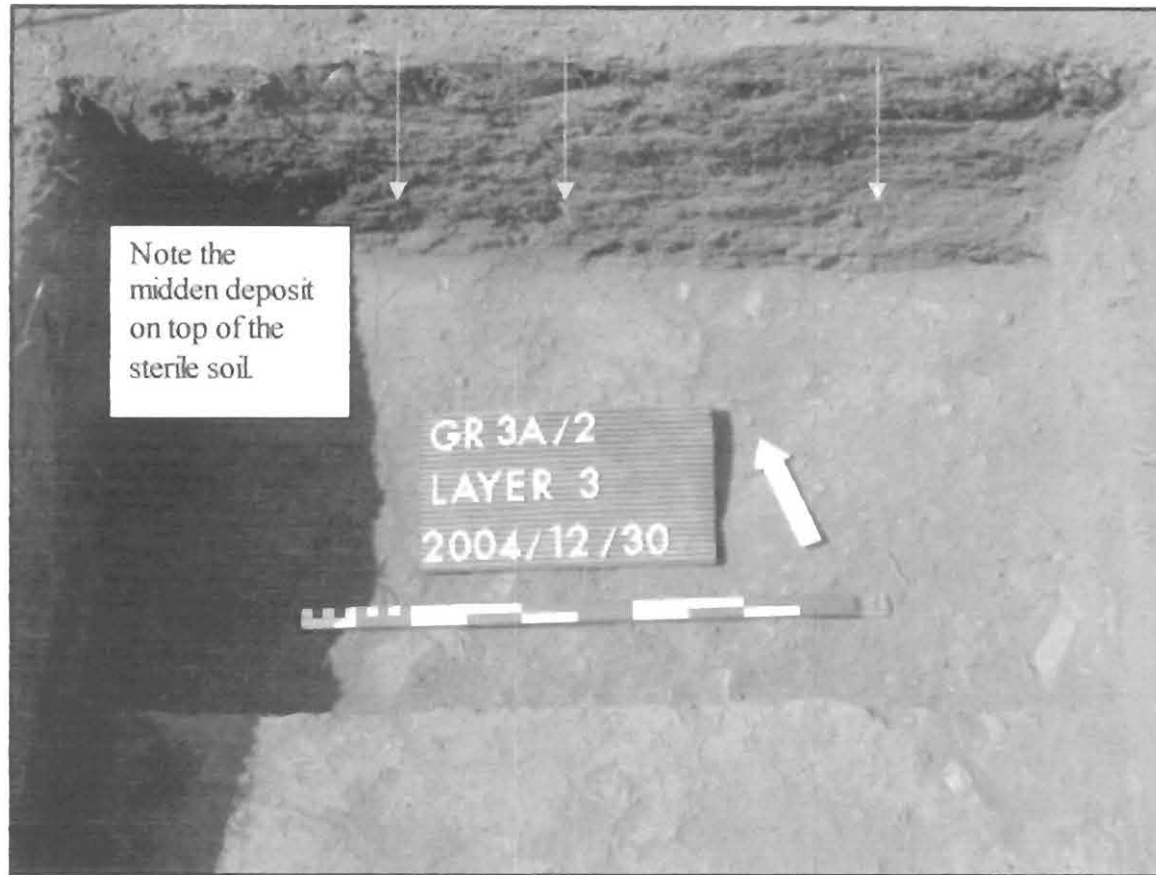


Figure 27 - Sterile red clay deposit below midden

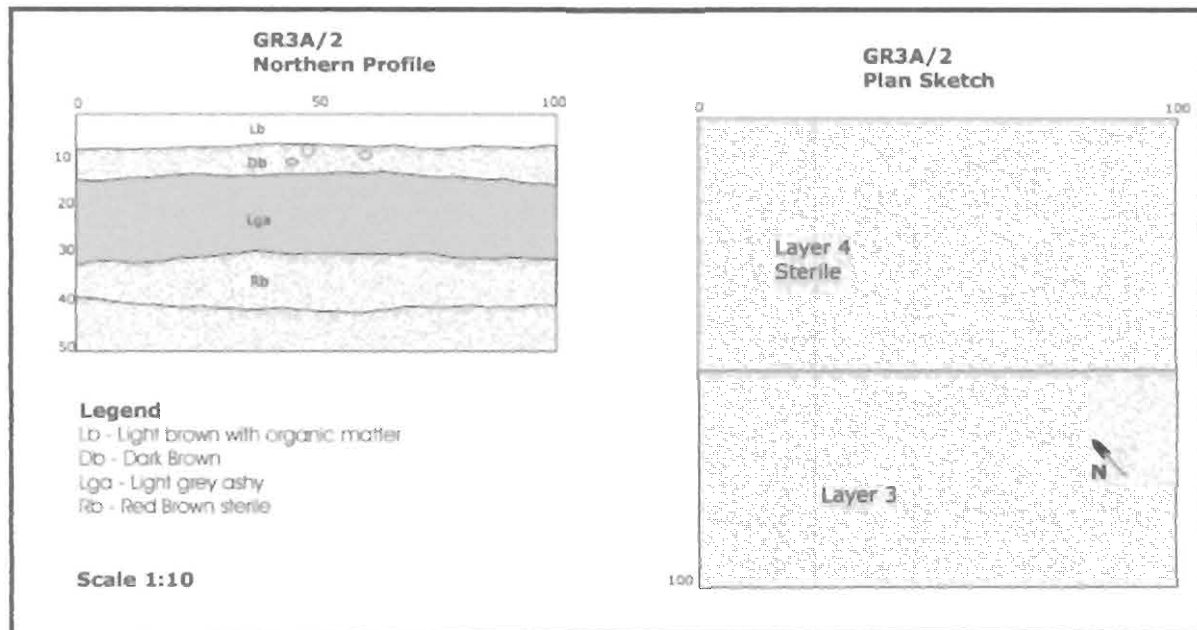


Figure 28 - Northern Profile of excavation GR003A/2

GR003A/3

For clarity on the overall residential pattern, a stone circle was excavated on the periphery of the stone-walled settlement. A 2x1 m trench was set out but, due to the absence of cultural deposit at this locality, the trench was only excavated as a 50 cm x 1 metre block (Figure 30). This excavation yielded a concentration of stones arranged in a haphazard form (Figure 31).

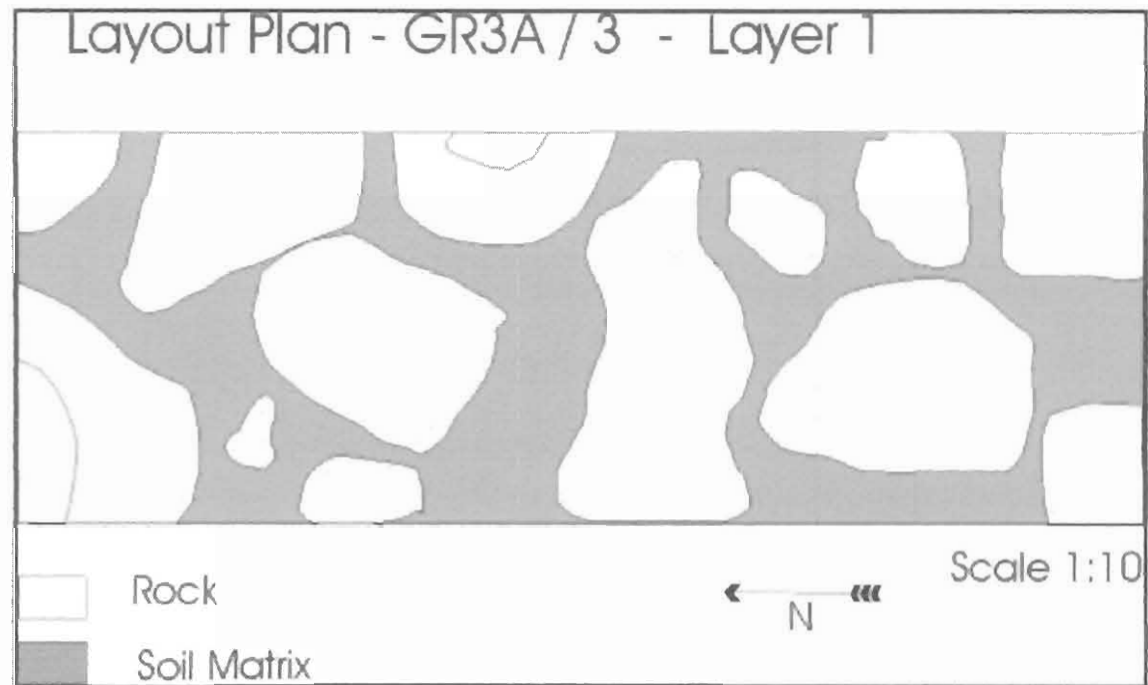


Figure 31 - Plan sketch of GR003A/3



Figure 31 - Concentration of stones

The loose stones were removed and a red sterile clay deposit was uncovered that runs uniformly through the site approximately 10 cm below the surface in this instance (Figure 32). No deposit or cultural artefacts were found in this excavation.

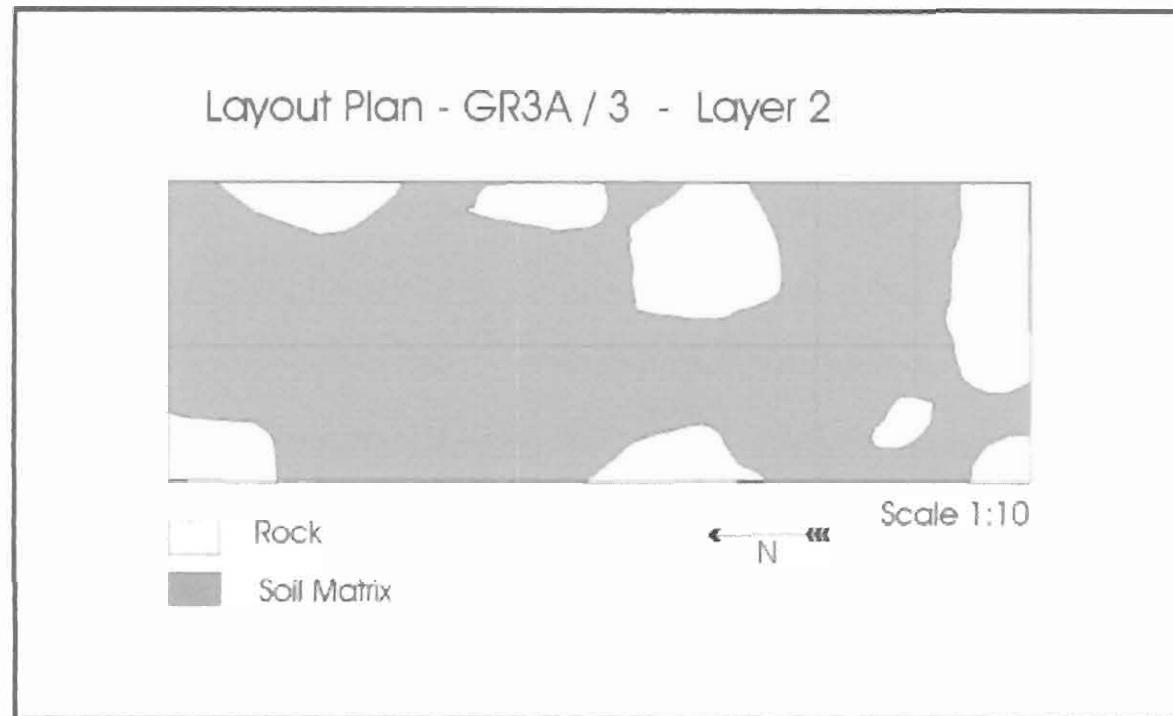


Figure 32 - Plan sketch of layer 2 – GR003A/3

6.3. Stone Age mitigation

The Stone Age site (GR006) is an open-air site situated on the edge of a cliff overlooking the Swart Spruit. The site is characterised by pockets of soil deposits in natural hollows in the rock face. A total of 5 pockets were identified, which were sampled and bagged (Figure 33).

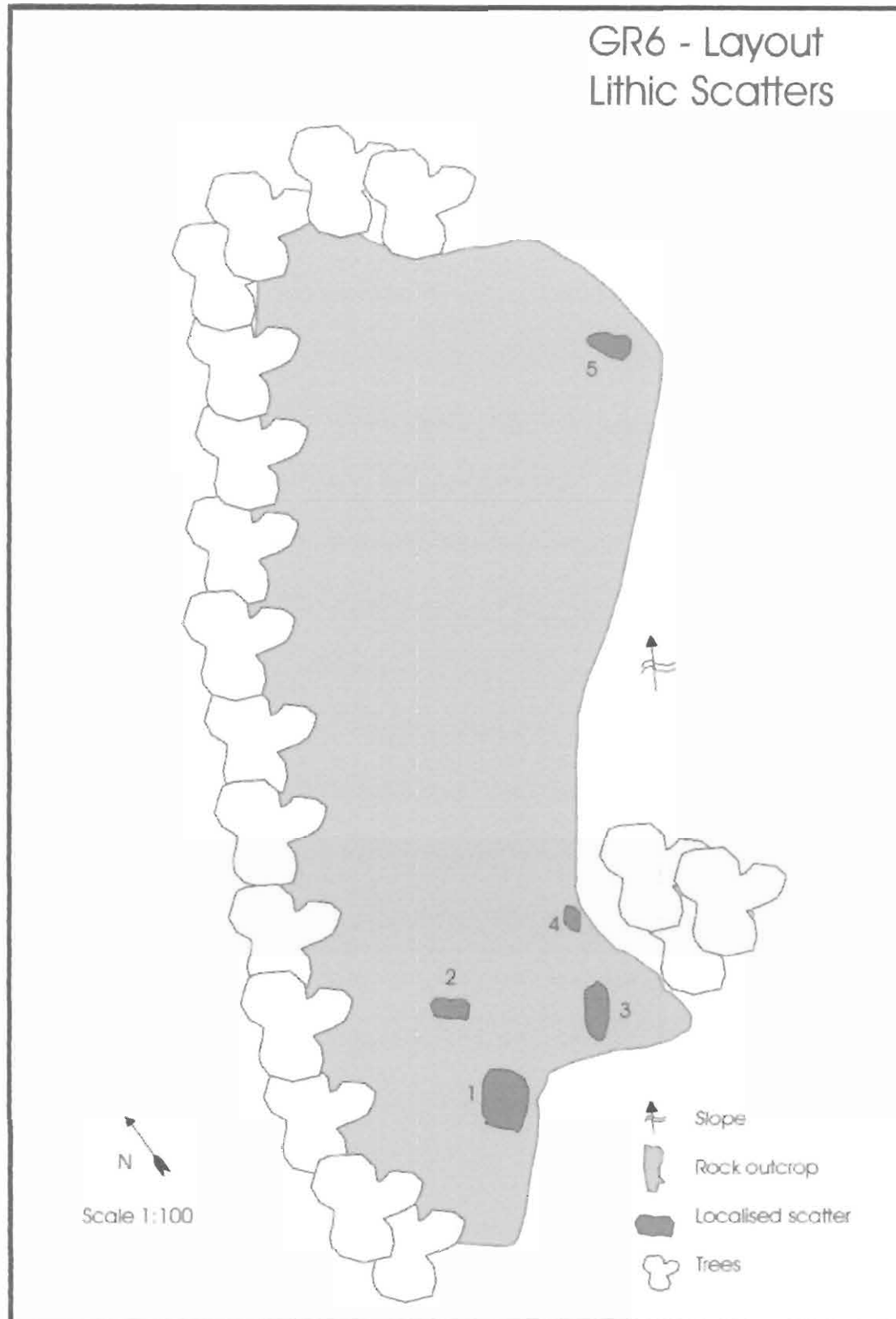


Figure 33 - Plan sketch of GR006

6.4 Finds

6.4.1 Late Iron Age Stone-Walled Site

Both middens yielded a large number of ceramics, a large percentage of which had been decorated. Besides the ceramics, a few other artefacts occurred in the middens, including bone, shell, metal fragments and copper wire. No charcoal or beads were found during the excavations. No European artefacts were found in any of the excavations.

For the purpose of this project the bone sample was separated into identifiable (**ID**) and unidentifiable pieces (**UNID**), such as fragments of bone shafts and ribs. Some bone fragments had been modified (**M**) by use, such as scraping, or by manufacture. Freshwater mussels (**FWM**) were also bagged with the bone sample.

Excavation	ID	UNID	M	FWM
GR 3A/1	5	99	1	3
GR3A/1 Extension	12	77		2
GR 3A/2	1	5		

The pottery was sorted into undecorated body sherds, and rims, and decorated rim and body sherds, some with unusual profiles:

GR003A/1

Decorated Sherds			Undecorated Sherds	
Rim	Neck	Other	Rim	Body
	9	18	13	289

GR003A/1 Extension

Decorated Sherds			Undecorated Sherds	
Rim	Neck	Other	Rim	Body
1	21	21	19	225

GR003A/2

Decorated Sherds			Undecorated Sherds	
Rim	Neck	Other	Rim	Body
	8	11	4	87

Figure 34 contains examples of the pottery recovered from the excavations at GR003A/1 and 2.

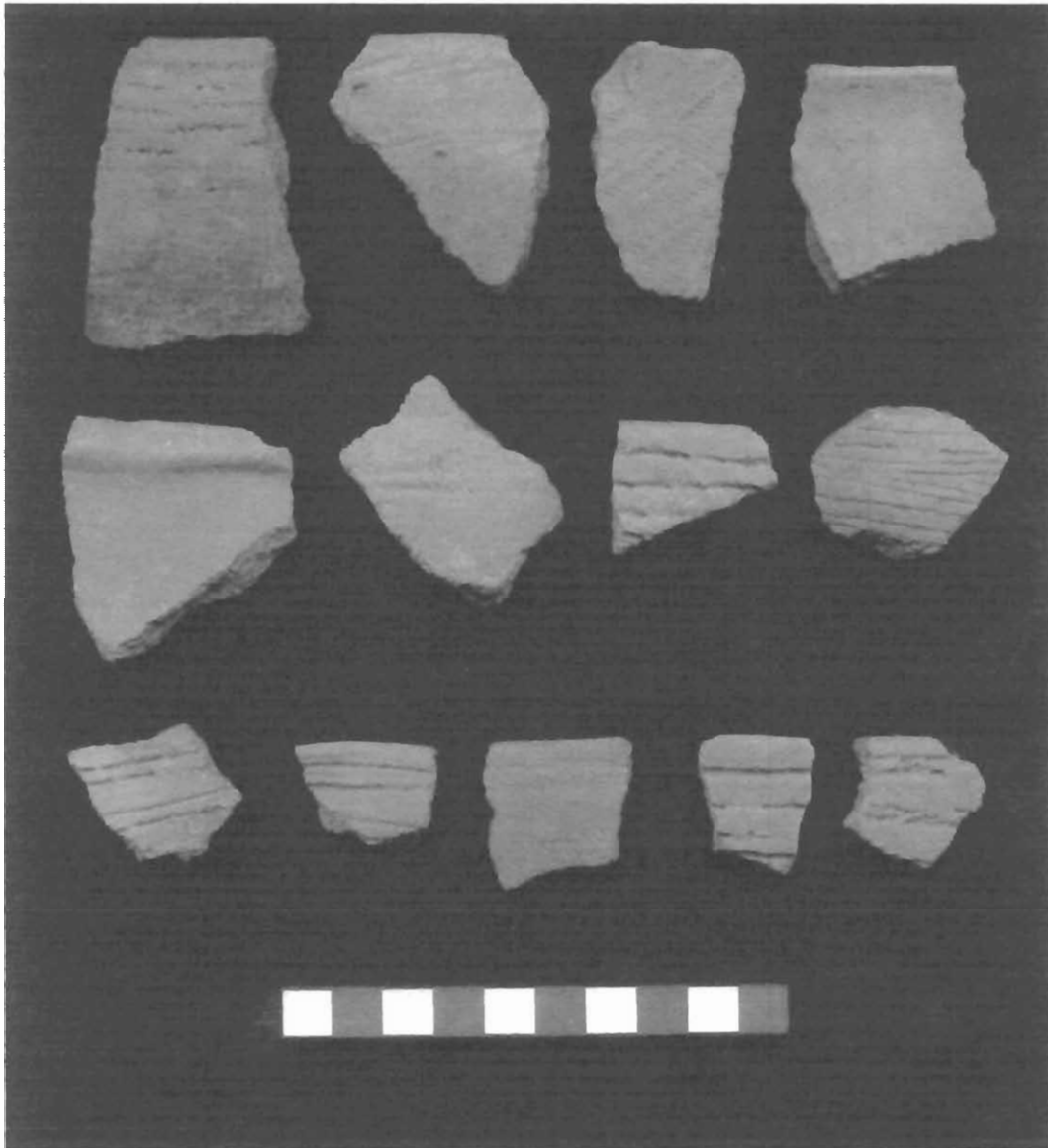


Figure 34 - Decorated pottery from GR003A/1 and 2

6.4.1.1 Discussion on Iron Age Sites

The settlement layout consisted of low disturbed stonewalling forming an outer wall with a few central enclosures displaying few visible entrances, conforming to the Central Cattle Pattern (Evers 1983, Huffman 1993). Most of the walls could not have exceeded a height of 500 mm and were most likely used as bases of brush fences.

Because of the extensive disturbance and possible robbing of the stonewalling it is difficult to classify the type of settlement but it most probably belongs to type V or even type N settlement types (Maggs, 1976).

The stone-walled site **GR003A** contains a single village horizon and was inhabited for a short period. The ceramics excavated display characteristics of what archaeologists refer to as Moloko pottery (Figure 39). The Moloko ceramic style commonly incorporates triangles, chevron and arcades as decorative motifs and is characterised by multiple spaced bands of incision or comb stamping. Untextured bands are often coloured red or black (Evers 1981; Loubser 1989).

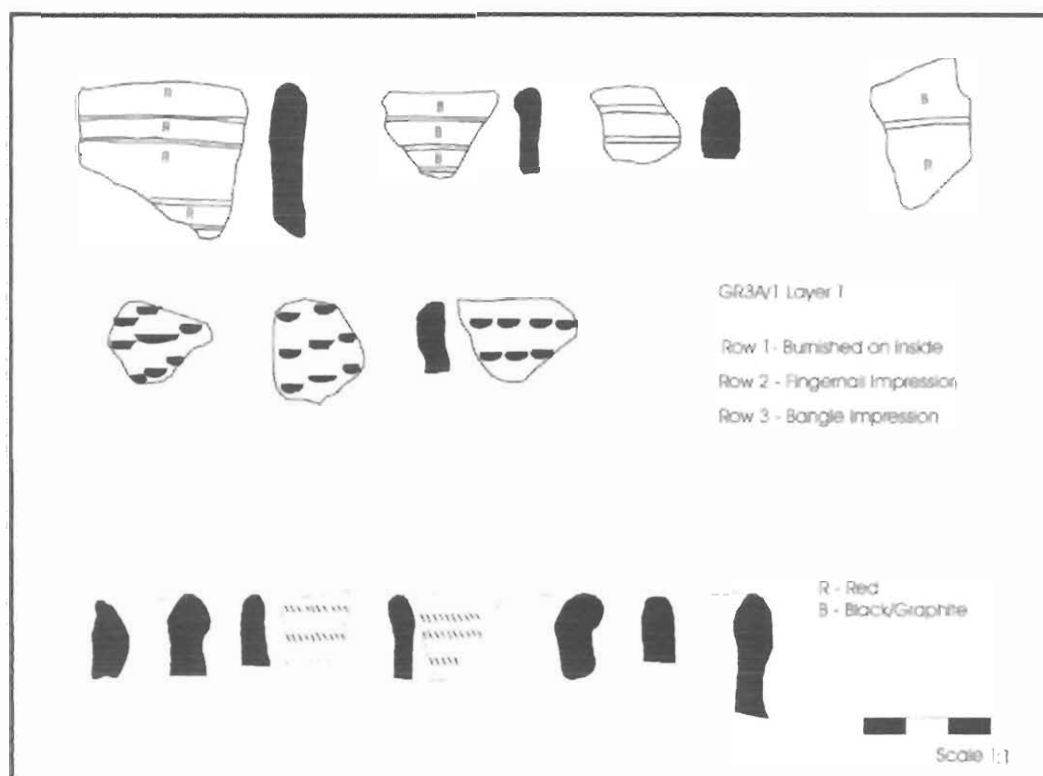


Figure 35 - Typical Moloko style pottery found in midden GR003A/1

The term Moloko is used to refer to the Late Iron Age ceramic style that is commonly associated with the broad Sotho-Tswana language cluster, which includes North Sotho, South Sotho and Tswana (West Sotho) (Boeyens, 2003; Evers, 1983). The Moloko sequence can be divided into two phases, namely an Early and a Late Moloko (Evers, 1981). A prominent difference between the two expressions is an increase in the use of stonewalling and a change in settlement location (Boeyens, 2003). Stone-walled sites like GR003 are associated with the Late Moloko and post-date AD 1600 (Vogel & Fuls, 1999). The ceramics from GR003A shows some resemblance to, and may represent a later development from, the Olifantspoort Early Moloko facies (Huffman, 2002)

Around AD 1750 the Sotho-Tswana aggregated in large megasites with a preference for elevated positions like hilltops, saddles and spurs. Based on the settlement size and location, it can therefore be argued that site GR003 most probably dates to the period between AD 1640 and AD 1750. Although a post-1750 occupation cannot be ruled out entirely, it is highly unlikely that the sites were inhabited after 1830, since no contact artefacts of European origin were retrieved during the field survey and the excavations.

The material cultural evidence uncovered from the Gardener Ross stone-walled sites clearly indicates that the Iron Age occupants can be associated with the early Sotho-Tswana. Oral historical data confirm that long before the nineteenth century, the Pretoria area was settled by Kgatla communities (the Mmakau and the Motsha), Tswana-ised Ndebele such as the Hwaduba, as well as the Manala Ndebele (Breutz, 1989). During the period of conflict known as the difaqane, many of these groups were conquered and temporarily dislodged from their lands by Mzilikazi's Ndebele, who established their headquarters near the sources of the Apies (Tshwane) River between 1827 and 1832 (Rasmussen, 1978).

6.4.2 Stone Age Open Air Site

In total, 24 lithics were sampled from site GR006. It is evident from the variety of material that manufacturing of artefacts occurred on the site. The most common raw materials used were quartz, hornfels and cryptocrystalline silicas. It seems that the assemblage mostly dates to the last 2000 years and can be classified as Classic Wilton (Personal comm. M.M. van der Ryst).

Classic Wilton > 2000
not pottery :- ? > 2000

The lithics were classified by Maria van der Ryst as Cores (**C**), Broken flakes (**BF**), Flakes (**F**), Side-Struck Flakes (**SSF**), Side-Struck cortical flakes (**SSCF**), Cortical Flake (**CF**), Medium/large Scraper (**MLS**), Broken blades (**BB**), Notched Blade (**NB**), Bladelet Core (**BC**) and Chunks (**CH**) (Figures 36-40).

Pocket	C	F	BF	CF	SSF	SSCF	MLS	BB	NB	BC	CH
1		2							1		
2	1		1	1						1	1
3	1					1	1	1			
4	2	2	3		2						
5	1		1		1						

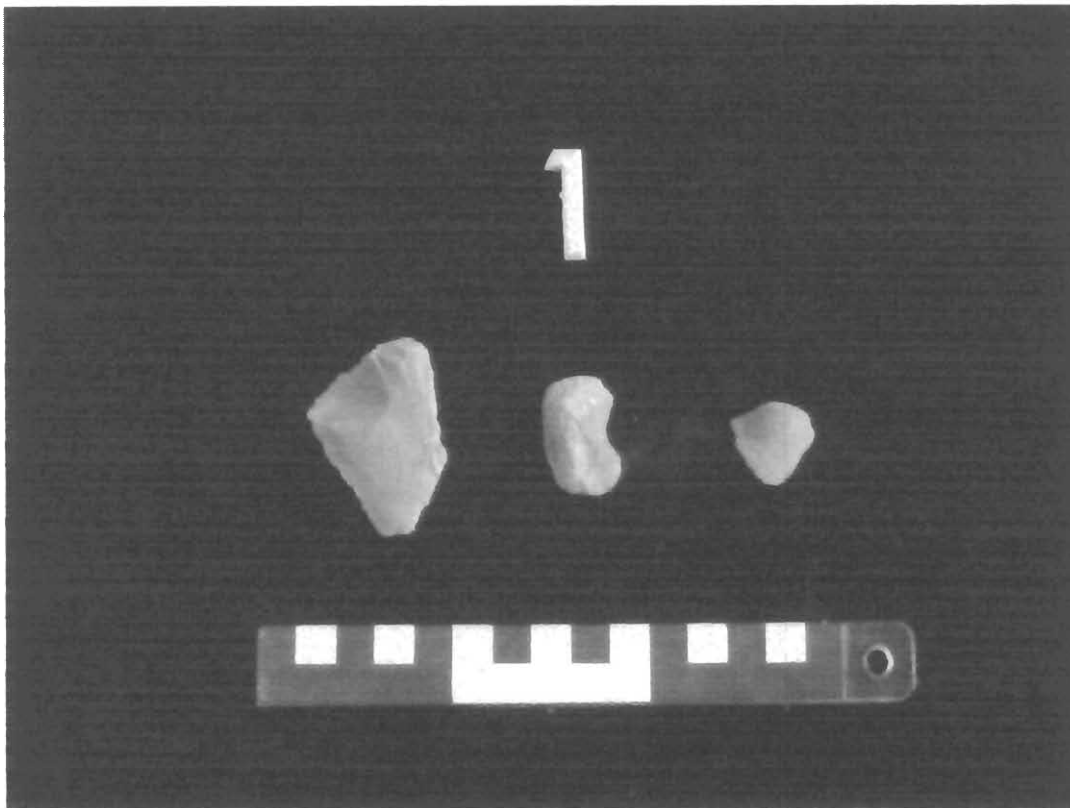


Figure 36 - Lithics from pocket 1

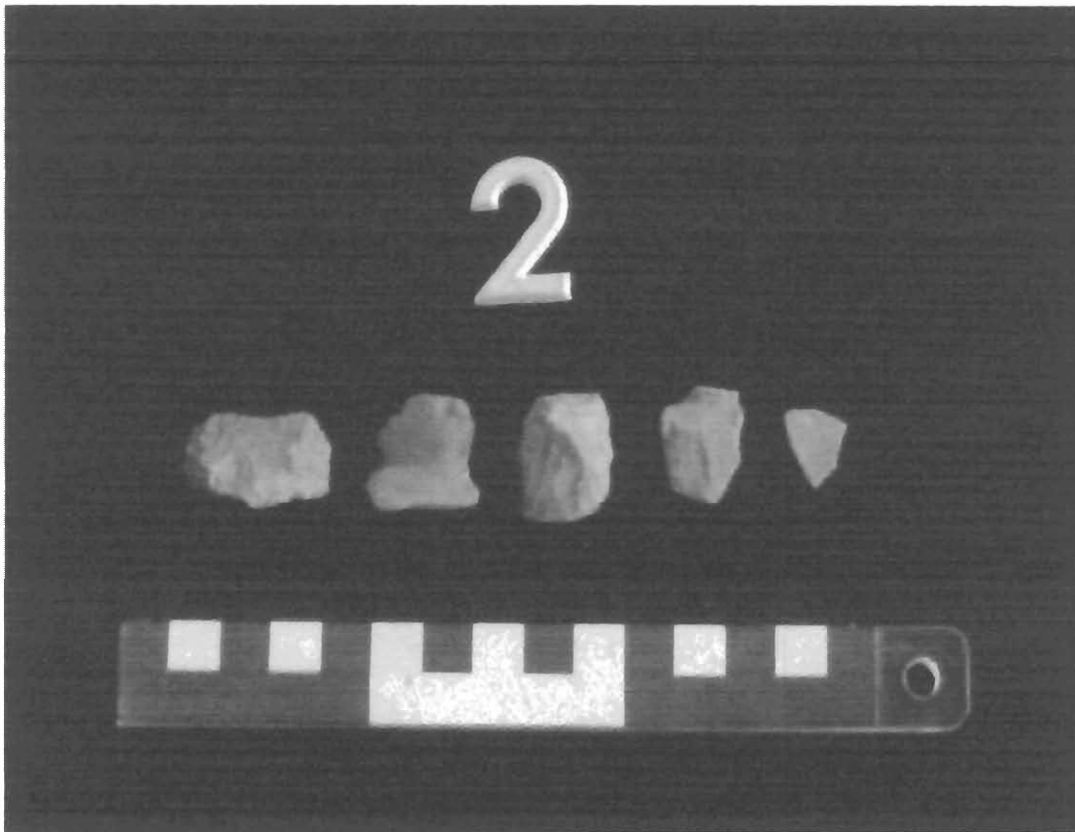


Figure 37 - Lithics from pocket 2

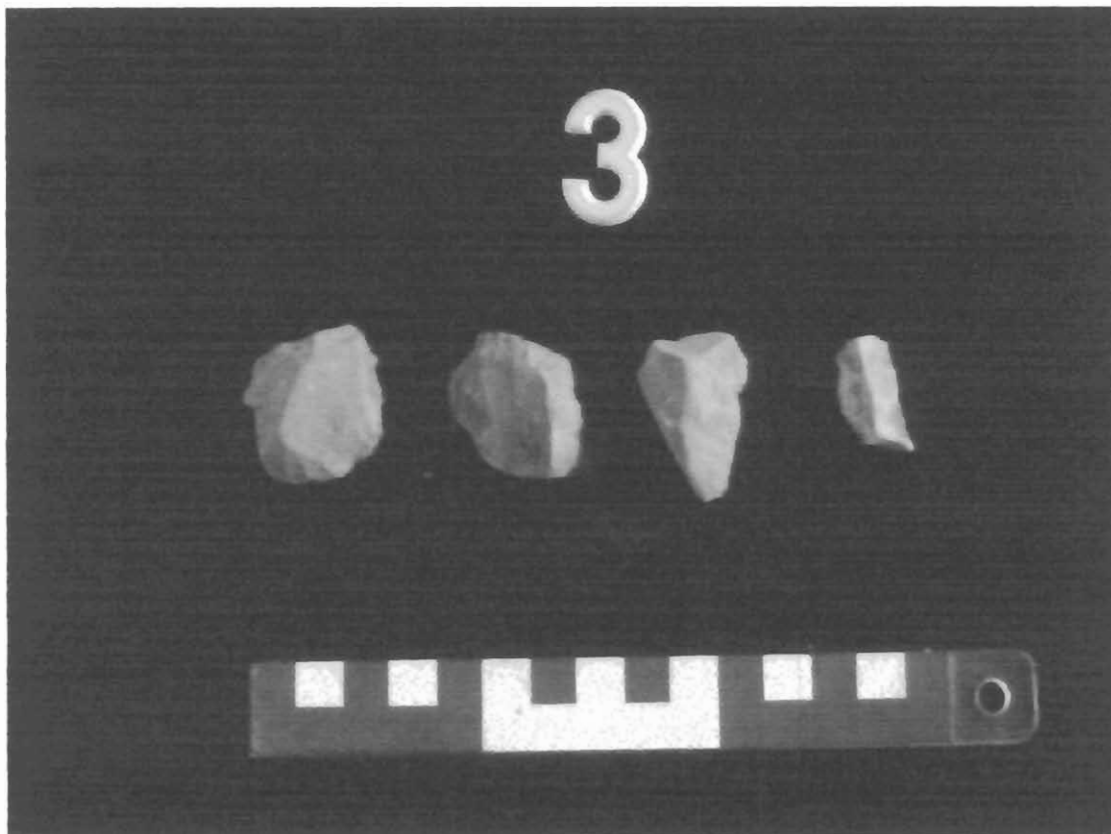


Figure 38 - Lithics from pocket 3

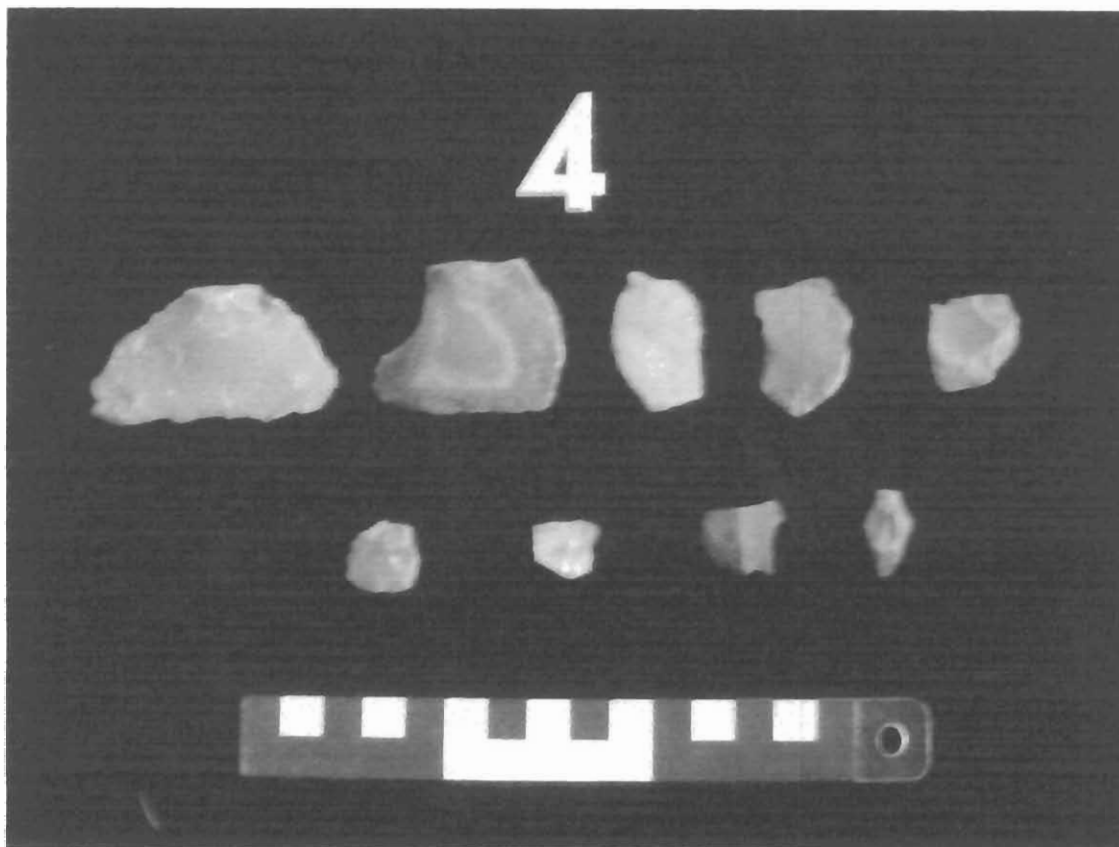


Figure 39 - Lithics from pocket 4

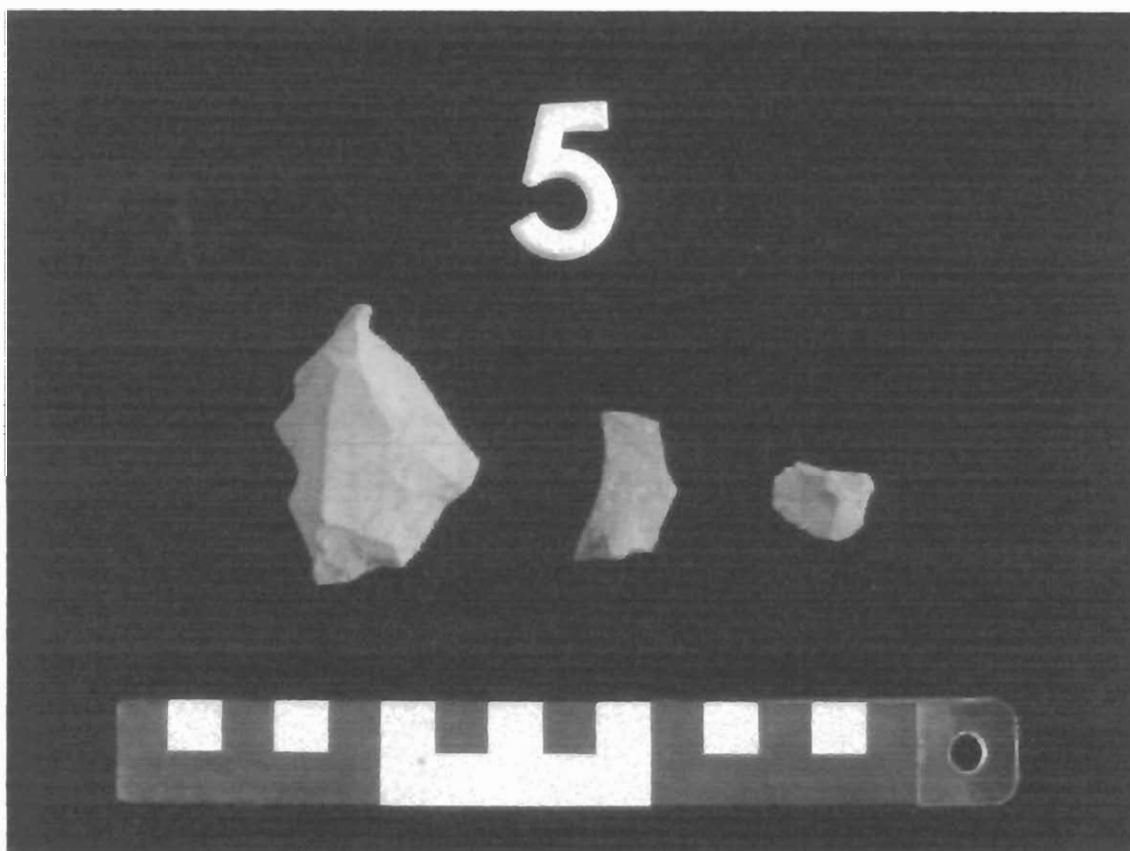


Figure 40 - Lithics from pocket 5

7. CONCLUSION

None of the sites documented in this report are of major importance, and consequently, they need not be preserved. The artefacts and other cultural material recovered constitute a representative sample of the temporal contexts of the sites and will suffice for further research.

All the sites situated in the area earmarked for development of Phases 2 and 3 of the Gardener Ross Golf and Country Estate have now been documented and interpreted to facilitate possible future research on the collected data. All the relevant information is contained in this report, which will be submitted to SAHRA in support of an application for a destruction permit for these sites.

The following must, however, be noted:

Archaeological deposits occur beneath the surface and, although Phase 2 mitigation was conducted on the sites to be destructed, further finds might be unearthed during construction. It is advisable that an archaeologist be on site during the destruction of the site with a rescue permit issued for such a circumstance where new cultural material is uncovered. This will enable the collection of cultural material unearthed during destruction.

The National Heritage Resources Act also makes provision for the development of a Cultural Heritage Management Plan for the sites that are not going to be destroyed by the present development. Sites GR003C and GR003D fall outside the proposed development but within the Gardener Ross Estate and by law a Cultural Heritage Management Plan is required for these sites. This management plan must also be incorporated into the Management Plan for the Estate and will add value to the uniqueness of the Gardener Ross Golf and Country Estate.

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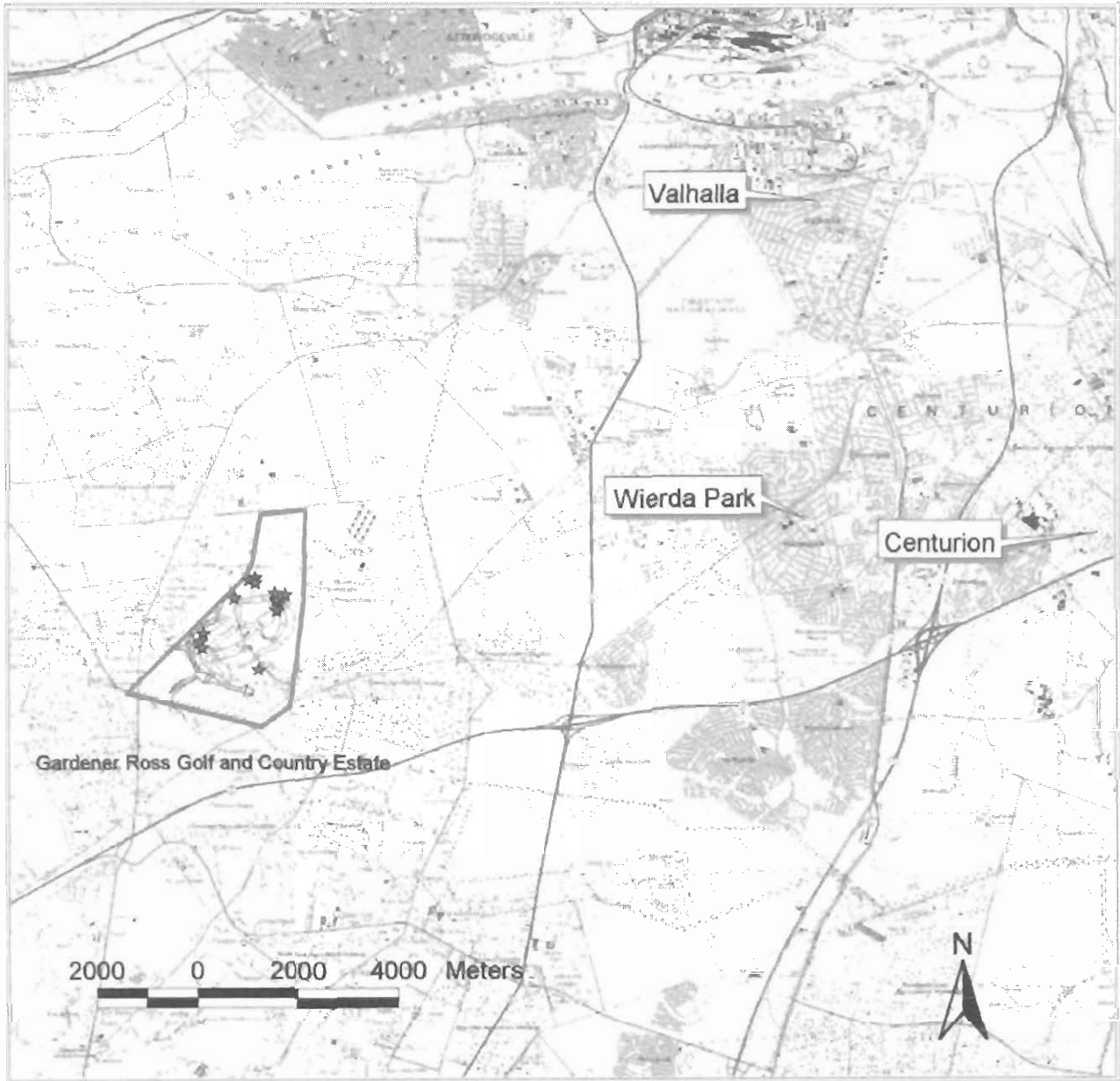
All sourced from the National Archives Pretoria.

3/551 Major H.M Jackson. 1900. Intelligence Map of Pretoria area.

MNW 552 MM1498/13. 1912. Knopjeslaagte Number 140 (Pretoria District)

ANNEXURE A - LOCALITY MAP

Locality Map



ANNEXURE B - DISTRIBUTION OF HERITAGE SITES FOR DOCUMENTATION

