FINAL REPORT ON THE ARCHAEOLOGICAL EXCAVATIONS AND MAPPING OF LATE IRON AGE (LIA) SITES ON THE FARM MERINO 64IR, LOCATED NEAR VILLIERS IN MPUMALANGA

For:

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This document represents a Final Report on the results of the excavations and mapping conducted on the LIA sites located on this farm as permitted by Permit ID:2062 (Case ID – 7783). The sites will be impacted on by the development of a new piggery on the farm by TOPIGS SA. An HIA conducted by the author identified these sites earlier in 2015 (See Report APAC015/12 – March 2015) and it was recommended that mitigation measures be implemented prior to development commencing. These recommendations were supported by SAHRA in their review comments of the said report, and the specialist was subsequently appointed by Shangoni Management Services on behalf of the developer (TOPIGS SA). A permit for the work was applied for and issued by SAHRA. Fieldwork was carried out during a week period at the end of August and early September 2015.

This short report will discuss in detail the work conducted during the fieldwork in fulfillment of the Permit Requirements, and the results achieved. The archaeological sites that will be impacted by the proposed development is located on Portion 0 (the Remaining Extent) of the farm Merino 641IR, in the Dipaleseng Local Municipality of Mpumalanga.

A number of sites and features, as well as cultural material related to the LIA, were identified during the initial survey. This included stone walled enclosures such as cattle kraals and hut bays, as well as ash middens and rock engravings, located in two distinct but related Archaeological Zones. Cultural material identified included pottery, faunal remains and upper and lower grinding stones.

Four Project Alternatives (for the Piggery development) were assessed. Preferred Alternative 4 was chosen by the client (ToPigs) for the development of their Piggery as it will have the least impact on the environment (water courses/wetlands; vegetation, etc.), including the Cultural Heritage (archaeological) sites. However, with clear impact on a section of the Iron Age settlement features, archaeological mitigation measures needed to be implemented, and the client accepted these actions. This included detailed mapping of all the sites and features, as well as archaeological excavations in these areas (Archaeological Zone 2). Although the archaeological sites and features in Archaeological Zone 1 will not be impacted, these LIA sites were also mapped in detail.

It is believed that the archaeological mitigation work conducted was completed successfully and the proposed development should be allowed to continue taking into consideration the recommendations put forward at the end of this document.
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INTRODUCTION

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TERMS OF REFERENCE

The Terms of Reference for the Project were as follows:

1. The archaeological investigation of stone walled LIA sites that will be impacted by the proposed development of the ToPigs Piggery on the farm Merino 64IR. The investigations were to comprise both excavations and detailed mapping of the sites and the features situated on them, including identified and recorded rock engravings

2. The analysis of all recovered cultural material from these excavations and spatial data from the mapping in order to try and determine the time-frame of occupation (age), cultural
identity of the occupants, the material economy and settlement layout and organization of these sites

3. The drafting of a Final Excavation Report in fulfillment of the SAHRA Excavation permit requirements and submission to both SAHRA and the clients (Shangoni Management Services & ToPigs SA) in order to obtain a Record of Decision (ROD) and Destruction Permit

METHODOLOGY

The methodology employed comprises the following:

Background Research – This included background research on the archaeology of the larger geographical within which the site falls.

Photographic - Photographs of the site and area was taken, while all identifiable features, excavations and individual objects were also photographed for recording purposes.

Mapping

All identifiable features, objects, excavations and the site’s extent were recorded and a detailed layout map of the site produced. This was done by using a hand-held GPS Device (Garmin Oregon 550)

Archaeological Excavations

The archaeological excavations were done to the standards expected by the archaeological profession and included a number of formal excavations on the main kraals in the Archaeological Zone that was identified as going to be impacted by the proposed development actions in order to determine the extent and depth of the archaeological material deposit, as well as to collect enough cultural material to help with the interpretation of the site and the possible reconstruction of settlement organization; time-frame of occupation and material (social) economy.

Analysis & Documentation/Curation of cultural material

All the cultural material recovered were documented photographically and analyzed accordingly. The material will also be cleaned, packed and placed in labeled bags and boxes for delivery to Ditsong National Museum of Cultural History for proper curation as part of the permit requirements.

ARCHAEOLOGICAL BACKGROUND

The stone walling consists of circular enclosures (the remains of cattle kraals), surrounded by the remnants of surrounding walls with hut bays. It is at this stage not possible to finally determine settlement type (the detailed on-site mapping has been completed but the site maps still needs to be completed), but it most likely conforms to Maggs’s Type N (Ntsuanatstatsi) settlements. Decorated pottery found on the sites seems to be related to the Ntsuanatstatsi
facies of the Urewe pottery tradition as well, with bands of stamped decoration in the neck of the vessel and stamped arcades on the shoulder. Sometimes these are found in combination with red ochre bands. The pottery dates these sites to between AD1450 & AD1650 (Huffman 2007: 167-169).

After preliminary analysis, it was recommended that the settlement possibly dates to around AD1450 & AD1650 based on the decorated pottery recovered. A final interpretation will be presented here with the detailed analysis of material now concluded.

The rock engravings found in Archaeological Zone 2 are similar to ones found by Van der Walt in 2008 close to Villiers. The rock engravings are on individual boulders on the site and consist of single or multiple geometric patterns and possible (unidentified) animal figures. The relationship of these engravings with the stone walled settlements is not known at this stage, but could possibly date to the same period. Some of the geometric patterns seem to be impressions of the settlement features they are located in. According to Dr. Ben Smith, a Rock art specialist who looked at photographs of the engravings found by Van der Walt confirmed that they are indeed engravings and that they looked recent, but not new. He thought at the time that they are not related to the San and that the engravings are younger than a hundred years (Van der Walt 2008: 29). This could however not be confirmed. During the recent archaeological work on the Merino sites these engravings were photographed in more detail and some examples also copied (traced from the rocks they are on).

Figure 1: Study area location map (Provided by Shangoni).
Figure 2: Aerial view of Archaeological Zones identified, sites recorded and Project Alternatives (Google Earth 2015).

Figure 3: A view of a section of stone walling in Zone 2.
ARCHAEOLOGICAL INVESTIGATIONS

One of the largest settlement units (or homesteads) in Archaeological Zone 2 was chosen as the location for the archaeological excavations, as it also contained some of the least disturbed kraal/midden deposits in the area. Disturbance through animal burrowing (meerkat and other rodents) on the kraals/middens are extensive, with archaeological material deposits disturbed to a fairly large degree.
A Baseline (our 0 line) of approximately 50m in length (in a northern direction) was measured out from the outer edge of the unit (southern boundary), with Basepoint A the fixed datum point. Basepoint B is situated around 25m from A, with C at the northern edge (boundary) of the settlement unit. Excavations were located on this line, measured out across (west/east of this line) the central part of the kraal/ash deposit. The aims of the excavations were to test the depth and extent of the archaeological deposit, and also to recover as much cultural material as possible in order to help with the interpretation and reconstruction of material economy, cultural identity of the inhabitants and to assist with an understanding of the time-frame of occupation and utilization.

Two excavations were measured out and conducted. **Excavation 1** was measured out west of and bounding the 0 line, and was located around 5m directly south of Basepoint C. It measured 1.5m x 1.5m and was located on a section of the kraal/midden with the least disturbances visible. Although there were disturbance in the northern side of the excavation (due to animal burrowing), the deposit was relatively intact.

**Excavation 2** was located further south on the 0 line, around 12m south of Basepoint C. It measured 2m (l) x 1m (w), with one block of 1m x 1m on the western and a similar block on the eastern side of the line. The western Block was excavated, with the eastern Block left as a control measure.

The excavations and results of these, together with the detailed analysis of the cultural material recovered from both, will be discussed later on in the report.

**Rock Engravings & Mapping**

The archaeological features in **Archaeological Zone 1** will not be impacted by the proposed development, but as these sites are linked to and forming part of the larger LIA Stone Walled settlement complex in the area, it was recommended that these sites and features also be mapped and recorded in more detail. This included the engravings of which some were identified during the earlier March 2015 HIA work. All possible engravings were recorded using a GPS device, providing a GPS coordinate for each, while detailed photographs were also taken. A number of engravings (the best preserved, clear and better detailed ones) were also recorded through tracing of the images on them.

The rock engravings found here are very similar to ones found by Van der Walt in 2008 close to Villiers. The rock engravings are also on individual boulders and consist of single or multiple geometric patterns and possible (unidentified) animal figures. The relationship between these engravings with the stone walled settlements was unknown at the time of the 2008 work, but could possibly date to the same period. Some of the geometric patterns were believed at the time to be impressions of the settlement features they are located in. Based on the 2015 work on the Merino site it is clear from the detailed recording of these engravings that they are more pecked than engraved figures, and that many of them do in fact represent depictions of the settlements they are located in (i.e. showing individual settlements and settlement features such as circular livestock enclosures).
Figure 6: A feint engraving of circular shapes.

Figure 7: Another engraving with circles.
Figure 8: One of the better engravings (Engraving 6) on the site. This one was traced and reproduced in this report. It possibly represent circular enclosures for livestock and homesteads.

Figure 9: Another engraving (Engraving 11) of circular-shaped patterns.
Figure 10: Another pecked engraving.

Figure 11: Aerial view of distribution of engravings in Archaeological Zone 1. No’s 6 & 11 were traced and are reproduced in Figures 12 & 13 in this report. Feint traces of stone walling are visible in the image (Google Earth 2015).
Figure 12: Copy of tracing of Engraving 6. The pecked engraving seems to depict circular enclosures typical of the settlement in which it is located & includes centrally placed enclosures (cattle kraals) with smaller ones around these as well as a continuous boundary wall and hut bays.
Figure 13: Copy of tracing of Engraving 11. Once again circular enclosures are possibly depicted, although this engraving is different to the Engraving 6 depiction where a continuous boundary wall surrounding the enclosures is shown. A number of the images are incomplete as the enclosures are pecked on the edges of the rock on which the engraving was done.
All the visible stone walled features (livestock enclosures and possible hut bays), as well as features such as the ash/kraal deposits, possible granary stands and individual artifacts such as upper and lower grinding stones and other objects, forming part of both Archaeological Zones 1 & 2 were mapped using a handheld Garmin Gekko GPS device. The individual engravings in Zone 1 were also recorded. The aims with the mapping were to determine the individual settlement layout or organization, and to place the Merino LIA settlements within one of the recognized Settlement Types identified by Maggs and others earlier.

It is clear that the stone walled sites are comprised of individual settlement units (homesteads), made up of centrally-placed livestock (cattle) enclosures, surrounded by secondary circular enclosures (smaller livestock? and hut bays) that form a continuous boundary wall. Interlinking sections of walling are placed between individual outer enclosures to form the unbroken outer wall. The individual settlement units together form a larger settlement complex that covers a fairly extensive area in the larger geographical location of Merino.

Only a small section of the stonewalled settlement in Zone 1 was mapped, as most of the archaeological site features are located on the other side of the boundary fence between Merino 64IR (Portion 0) and the neighboring farm. The section that was mapped contains mostly low stone packed (foundations) walling and some features (possible small livestock enclosures and/or windbreaks formed by the natural rocks of the ridge that dominate this section of the site. To determine settlement layout here was difficult, with an incomplete settlement that was mapped as well as the fact that the walling has not been that well preserved. However, based on the mapping and field observations, it is possible to say that the settlement unit mapped consisted of a large, centrally placed, circular enclosure surrounded by smaller enclosures (that could have included hut bays and/or smaller livestock pens). There are seemingly no linking walls between the large enclosure and the surrounding smaller ones. Other features identified include possible granary stands (stone-packed platforms or cairns).

The pattern (with a centrally placed enclosure) is typical of the so-called Central Cattle Pattern. Detailed knowledge of settlement patterns is of great importance in understanding and reconstructing culture-history and life ways. Many Bantu-speaking groups in southern Africa organized their settlements according to the principles of the so-called Central Cattle Pattern (CCP), an ethnographically derived model of spatial organization based on Adam Kuper’s 1982 analysis of Nguni and Sotho-Tswana settlements.

The thousands of stone-walled settlements in the Northwest Province, southern Gauteng and Free State, were built by the close ancestors of people living in South Africa today, making them appealing to Iron Age archaeologists (Mason 1986: 317). Also, there are oral traditions about many of these settlements, and in some case they were vividly recorded by the first European travelers and missionaries, such as Campbell (1822) and Broadbent (1865).

Although there are many different classes and types of settlement identified by researchers, they are all variations on the CCP theme. This aspect will be detailed in the discussion surrounding the mapping of the stone walling in Archaeological Zone 2.
Figure 14: Google Earth map of the stone walled features mapped in Zone 1. Note the large enclosure surrounded by smaller circular and semi-circular enclosures. The black dot in the large enclosure is a possible granary stand. A boundary fence cuts through some of the features, with the settlement continuing on the other side. The locations of the recorded engravings are also shown (Google Earth 2015).
Mapping in Archaeological Zone 2

The mapping in Zone 2 focused on a single settlement unit (homestead), and although there are other similar units that form part of the larger settlement, this was also the area where the archaeological excavations were located. The aims were to try and determine settlement layout/organization and provide a relative age for the settlement. With most of the stone walling very low (less than 0.50m in height on average) and identified only by foundation walling, the mapping was difficult. However, through a combination of on-site mapping and using Google Earth (with some features visible that were not visible on the ground) it was possible to produce a map of the settlement unit through which settlement layout could be fairly accurately reconstructed.

Based on the mapping it is clear that the settlement unit consists of a continuous boundary wall, enclosing a number of large circular enclosures (cattle kraals) roughly in the center of the homestead, with a number of smaller enclosures (smaller livestock and/or hut bays) around these. A few smaller enclosures are located right on the boundary wall, and were probably used for smaller livestock as well. In some sections there are linking walls between enclosures visible. Fairly large numbers of upper (40 in total) and lower grinding stones (5 in total) are scattered throughout the settlement unit. This is evidence for agriculture (crop growing and utilization) being practiced on a fairly large scale. Many of the lower grinding stones are broken in half and were seemingly used in the stone wall construction.
In terms of Settlement Type the following can be said. Although there are many different classes and types of settlement identified by researchers, they are all variations on the CCP theme. We will look at Mike Taylor’s 1979 Group system first. The first, **Group I**, dates to the 16th century AD, and these settlements have simple elliptical boundary walls enclosing groups of smaller enclosures in the center. Sheep or goat enclosures were sometime located on the outer boundary walls. **Group II**, dating to between AD 1650 and AD 1840, and can be divided into **Group IIA** and **Group IIB**. Group IIA settlements consist of continuous semi-circular boundary walls, or scallops, enclosing huts. In the center are both small and large circular enclosures, used for cattle and smaller livestock. Group IIB has discontinuous semi-circular boundary walls made up of scallops containing huts, as well as centrally located enclosures. The final group, **Group III**, is an agglomeration of circular enclosures with the outer limit marked by varying lengths of curved walls and small circular enclosures. **Based on the mapping on Merino it is clear that the settlements here are similar to his Group I.**

Based on Maggs’ 1976 analysis of stone walling in southern Africa, it is clear that the settlements on Merino are more than likely similar to and contemporary with his **Type N** walling. It is named N after the hill called **Ntsuanatsatsi** which is the legendary origin of the Foken. Type N walling consists of a few cattle kraals in the center, linked by other walls, while a perimeter wall, that sometimes incorporate small stock enclosures surround the whole settlement. Type N walling dates to between the fifteenth and seventeenth century in the Free State. During this time, Type N settlements spread across the Vaal into the hilly areas of Gauteng, where it has been known as Group I (Taylor 1979) or Class I (Mason 1968). Type N is the preferred term (Huffman 2007: 33).

It is therefore possible that the Merino 64IR stone walled settlement dates to between the 15th and 17th centuries AD, based on the mapping work. The analysis of the cultural material (and specifically the decorated pottery) found in the excavations will aim at providing a better understanding of the time frame of settlement.
Figure 16: Map of settlement and walling based on GPS & Google mapping. Note the continuous boundary wall, circular enclosures and sections of linking walls. The settlement unit is partially cut by a modern farm fence (red line). Our excavation Baseline (white line) and Basepoints & excavations are also indicated (Google Earth 2015).

**Excavations**

One of the largest settlement units in Archaeological Zone 2 was chosen as the location for the archaeological excavations (the one mapped above), while it also contained some of the least disturbed kraal/midden deposits in the area. Disturbance through animal burrowing (meerkat and other rodents) on the kraals/middens are extensive, with archaeological material deposits disturbed to a very large degree.

A Baseline (our 0 line) of approximately 50m in length (in a northern direction) was measured out close to the outer edge of the unit (southern boundary), with Basepoint A the fixed datum point. Basepoint B is situated around 25m from A, with C at the northern edge (boundary) of the settlement unit. Excavations were located on this line, measured out across (west/east of this line) the central part of the kraal/ash deposit. The aims of the excavations were to test the depth and extent of the archaeological deposit, and also to recover as much cultural material as possible in order to help with the interpretation and reconstruction of material economy, cultural identity of the inhabitants and to assist with an understanding of the time-frame of occupation and utilization.
Two excavations were measured out and conducted. Excavation 1 was measured out west of and bounding the 0 line, and was located around 5m directly south of Basepoint C. It measured 1.5m x 1.5m and was located on a section of the kraal/midden with the least disturbances visible. Although there were disturbance in the northern side of the excavation (due to animal burrowing), the deposit was relatively intact. The stratigraphy of the excavation was approximately as follows:

1. approximately 08cm of darkish brown topsoil and grass, followed by,
2. soft, light-grey ash, with very little charcoal present of around 49cm thick, to
3. a sterile, gravel-like layer at a depth of 57cm below the Present Surface Level (PSL).

A fairly large amount of cultural material was recovered that included both identifiable and unidentifiable faunal remains (bone & shell), decorated and undecorated pottery. Some Ostrich Egg Shell (OES) objects were found as well. No metal objects were recovered.

Excavation 2 was located further south on the 0 line, around 12m south of Basepoint C. It measured 2m (l) x 1m (w), with one block of 1m x 1m on the western and a similar block on the eastern side of the line. The western Block was excavated, with the eastern Block left as a control measure.

The stratigraphy of the excavation was similar to that of Excavation 1, with around 09cm of dark-brown topsoil and grass cover, followed by light-grey ash up to a depth of around 48cm below the PSL before sterile gravel was reached. A section in the northwestern corner had more deposit and was excavated down to approximately 56cm below the PSL and to sterile levels.

The cultural material (type and frequency) found is also similar to that found in Excavation 1, but in addition some worked bone objects (bone pendants), OES beads, part of a soapstone dagga pipe bowl and a corroded metal (iron) blade was also recovered.

The results of the analysis of the cultural material are discussed in the next section of the report.
Figure 17: A view of the Excavations situated alongside & on the Baseline.

Figure 18: Excavation 1 with some collapsed stone walling from the outer boundary wall visible.
Figure 19: Excavation 1.

Figure 20: Excavation 1 stratigraphy. Note the dark-brown topsoil & ashy deposit following this layer.
Figure 21: Excavation 2.

Figure 22: Excavation 2 showing the stratigraphy. Note the thin section of topsoil followed by the soft layer of light-grey ash.
Cultural Material

As part of the archaeological work on the site, we also conducted a collection of material from the general surface of the area to supplement the excavated material sample. The material collected from the surface is discussed below:

1. Ceramics

This included 2 undecorated body sherds, of which 1 was burnt black (evidence of being used as cooking vessel) and 1 with an orangey-red burnish. Nine (9) undecorated rim pieces were also collected, of which 4 were too small to determine shape or profile of the vessels they represented. At least 4 individual vessels are represented by the undecorated rim pieces. The pieces that could be used for profile and shape indicates that there were pots with upright necks and rounded rims (2 vessels); pots with slightly everted necks and rounded rims (2 vessels) and bowls with rounded rims (1 vessel).

The decorated pottery consisted of 6 decorated body pieces, all with comb stamping decoration, and 6 decorated rim pieces. Five (5) of these were too small in size to determine vessel shape/profile, full decoration motif and all possible positions (on the vessel) where decoration could occur. The decoration types visible on these 5 pieces consist of three with bands of comb stamping below the rim of the vessels and 2 with applique (applied) decoration below the rim.
The analysis of Iron Age ceramics is done according to accepted procedures proposed by Huffman (1980, 2007). In this, multidimensional types are formed using 3 independent variables: vessel profile, decoration layout (position on vessel) and decoration motif. The intersection between these variables produces classes of vessels present on a site. There was 1 pot with an upright neck & rounded rim that could be identified. It had rim nicking and “amasupis” below the rim and on the vessel’s neck as decoration. These protrusions (applique decoration) are similar to pottery found on archaeological sites in KZN, related to the so-called Nqabeni facies of the Urewe pottery tradition and dating to between AD1700 to 1820 (Huffman 2007: 163-165). Ntsuanatsatsi pottery (also part of the Urewe tradition) is characterised by comb stamping (broad bands) in the neck, stamped arcades on the shoulder of vessels, as well as applique decoration and rim nicking (Huffman 2007: 168-169). Based on radiocarbon dates from various sites containing this type of pottery the time-frame of settlement ranges most likely between AD1450 and AD1650 (Huffman 2007: 167).

Other ceramic objects collected from the surface of the area include a fragment of a clay ox (part of its one leg & foot) and a small piece of modern porcelain vessel without decoration. Last mentioned are most likely related to the recent modern (late 19th to mid-20th centuries) farming on the farm.

Stone artefacts collected include a single large stone scraper that probably dates to the Middle to Later Stone Age, and 1 completed soapstone dagga pipe bowl and a fragment of another pipe. One (1) ostrich eggshell bead (OES) and 1 possible metal sweat scraper shaft and “blade” section was also found. Finally some bone fragments (possible scrapers) and 1 single human tooth (molar) was also recovered. Last mentioned was found on the surface in an area where animal burrowing has brought material to the surface, and it is therefore more than likely that the area where this tooth as found contains an Iron Age burial. Although this area will not be impacted by the development it is therefore clear that unmarked burials containing human remains do exist here. Should any be accidentally uncovered during development work this needs to be investigated properly and all work in the area where it was exposed should be halted.
Figure 24: Decorated pottery from the surface of the area.

Figure 25: Undecorated rims from the surface.
Figure 26: Decorated rims. Note the applique decoration on the bottom two pieces and comb stamping arcades on the top left piece.

Figure 27: Piece of clay figurine (ox).
Figure 28: Soapstone dagga pipe bowl and fragment of another.

Figure 29: Historical porcelain piece.
Figure 30: Human molar from the surface.

Figure 31: OES bead found on the surface.

Figure 32: Possible metal (iron) sweat scraper.
Excavation 1 Cultural Material

Only 1 layer was excavated and all the material recovered is therefore discussed as part of a single (assumed) occupational level or period.

1. Ceramics

Ceramics form the 2\textsuperscript{nd} largest portion of the cultural material sample recovered from Excavation 1, with a total number of 275 pieces. Of these 250 pieces are undecorated body sherd. Some are burnt black from being used in cooking (cooking vessels), while others are fairly thick-walled and quite likely represent vessels for storage of things like water and/or grain/maize/sorghum. There is also one (1) large fragment (body & base section) of a small pot possibly representing a drinking vessel.

There are 14 undecorated rim sections, representing a minimum of 11 individual vessels. These rim sherds are too small to determine vessel shape or profile. Six (6) decorated body pieces were recovered, with 5 containing comb stamping as decoration and some in combination with red ochre bands. One decorated body sherd was found “amasupis” or protrusions as decoration. The four decorated rim pieces contain comb stamping (3) and applique decoration (1) below the rim. No vessels types or decoration motif and full position could be determined from these 4 small pieces however. The decoration on the Excavation 1 ceramics are similar to that from the surface of the site, and gives further proof that the settlement might be associated with the Ntsuanatsatsi (Type N) sites, and possibly the Fokeng as well.

2. Stone objects

This category included 1 upper grinder and two small pieces of limestone. The function for last mentioned is not known, but this was the only instance of this material found on the site.

3. Faunal Remains (Bones) & Shell

Faunal remains (animal bones) and shell formed the largest percentage of the material sample from the excavations. Most of this consists of unidentifiable fragments of longbone, ribs, vertebrae, cranial (skull) pieces and teeth (enamel fragments). Unidentifiable means that species size, sex and age and specific skeletal element cannot be determined from the fragments. Some of these pieces show signs of having been burnt, while a number have edge wear and were possibly used as scrapers or spatulas. Only 12 identifiable bone and teeth fragments were recovered in all. Preliminary analysis indicates that possible cattle (Bos Taurus or at least Bov.III sized animals) are represented (this is to be expected), while possible avifauna (large bird) is also present in the sample. Two (2) OES fragments were also found in Excavation 1.
Figure 33: Decorated body sherds from Excavation 1.

Figure 34: Decorated rim pieces. Note the amasupis on the piece on the right & the applique decoration on the piece on the left.
Figure 35: Upper grinder from Excavation 1.

Figure 36: Two pieces of limestone from the excavation.
Figure 37: OES fragments.

Figure 38: Unidentifiable fragments of bone.

Figure 39: Close-up of polished edge/tip of one bone fragment. This is possibly as a result of being used as awl/scaper.
Excavation 2 Cultural Material

The types of material from this excavation are similar to that of Excavation 1, although the totals might differ slightly. Also some charcoal and burnt seed and the only metal object found in the excavations came from Excavation 2.

1. Ceramics

The largest portion of the ceramic sample was once again undecorated, with 172 undecorated body sherds and 10 undecorated rim pieces. Some of the body sherds were burnt black (cooking vessels), while others were thick-walled and possibly represent storage vessels. Ten (10) individual vessels are represented by the undecorated rims, with 1 large enough to determine vessels shape/profile. It represents a small pot with a slightly everted neck and flat rim.

The decorated pottery is represented by 2 rim sections, both containing comb stamping decoration below the rim. Two vessels are represented.

2. Stone objects

This category contains two upper grinders and 1 soapstone dagga pipe bowl fragment similar to the ones found on the general surface of the site.

3. Faunal remains & Shell

Once again this formed the largest part of the material sample from the excavations. Of this, 428 pieces were unidentifiable fragments of bone and teeth, including long bone fragments, ribs & vertebrae, cranial fragments and other skeletal elements. Two (2) bone pendants/beads were also recovered, while a further three (3) bone fragments have signs of edge wear.
Shell is represented by 10 pieces of freshwater and landsnail shell, as well as two (2) OES beads.

4. **Metal**

Only 1 metal object was found in the excavations, and consists of a very corroded and broken blade-like object. It is not possible to say what it represents with certainty but it could either be the remains of an adze or hoe or spear blade.

5. **Charcoal & Burnt Seed**

A very small amount of charcoal could be recovered from Excavation 2, while a small sample of burnt seed was also found. Identifying the type of seed would be difficult as it is a very fragmented sample, and doing radiocarbon dating with the charcoal would not be possible as the sample is too small.

![Figure 41: Small undecorated pot fragment.](image-url)
Figure 42: Decorated rim sherds from Excavation 2.

Figure 43: Two upper grinders from Excavation 2.
Figure 44: Dagga pipe bowl fragment.

Figure 45: Metal blade-like object.
Figure 46: Two bone pendants/beads from Excavation 2.

Figure 47: OES beads from Excavation 2.
From the mapping of the settlement features and the archaeological excavations, as well as the analysis of the cultural material recovered, the following can be deduced:

1. Settlement layout/organization comprises mainly a continuous elliptical boundary wall, enclosing a number of large and smaller circular enclosures (for cattle, smaller livestock & possible hut bays), with sections of linking walls between some enclosures. This is typical of the so-called Type N (Maggs 1976) or Group I (Taylor 1979) stone walled settlements, dating to between the 15th and 17th centuries AD, and possibly relating to the Fokeng

2. Engravings found in Archaeological Zone 1 (some of these traced and reproduced in this report) seem to depict the stone walled settlements in which they are located, and show circular enclosures bounded by a surrounding wall and in some cases “free-standing” enclosures. The one section of walling mapped in Zone 1 does not seem to have a continuous
boundary wall enclosing the circular features, but this could be because the natural rock formations here takes this function.

3. From a material economy aspect the following can be said. It is clear that agricultural activities such as ploughing and crop growing were practised. The many upper and lower grinding stones found is evidence of this, while some possible granary stands identified in Zone 1 is further proof of this. A possible hoe fragment could point to ploughing activities. The herding of cattle and other livestock was clearly practised. The utilization of other faunal species, such as large birds and smaller non-domesticates (through hunting and trapping) cannot be excluded, but without detailed analysis of the faunal remains this can only be hypothesised at this stage. The faunal sample from the excavations (in terms of identifiable and usable material) is too small to motivate this type of analysis at this stage however. Food sources such as freshwater mussel and landsnail was also seemingly utilised, while ostrich eggshells was used to make items such as beads for personal adornment. Bone pendants and beads were also produced, and bones used as tools such as scrapers and awls.

4. Based on the mapping and decorated ceramics from the excavations the time-frame of settlement seems to be between the 15th and 17th centuries AD. The pottery possibly dates to between AD1450 & AD1650, and is similar to the pottery from the Ntsuanatsatsi facies of the Urewe tradition (Huffman 2007: 167).

5. Cultural identity of occupants is difficult to determine without a doubt, but it is possible that they are related to the Fokeng, a Sotho-speaking group, associated with the hill called Ntsuanatsatsi (from which Type N is derived) in the southern Free State. However, these LIA settlements are related to the Sotho-Tswana and groups associated with them.

CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that the excavations and mapping conducted on the LIA sites located on Portion 0 of the farm Merino 64IR, as permitted by Permit ID:2062 (Case ID – 7783), were conducted successfully. The sites will be impacted on by the development of a new piggery on the farm by TOPIGS SA. An HIA conducted by the author identified these sites earlier in 2015 and it was recommended that mitigation measures be implemented prior to development commencing. These recommendations were supported by SAHRA and the specialist was subsequently appointed by Shangoni Management Services on behalf of the developer (TOPIGS SA).

A number of sites and features, as well as cultural material related to the LIA, were identified during the initial survey. This included stone walled enclosures such as cattle kraals and hut bays, as well as ash middens and rock engravings, located in two distinct but related Archaeological Zones. Cultural material identified included pottery, faunal remains and upper and lower grinding stones.

Four Project Alternatives (for the Piggery development) were assessed. Preferred Alternative 4 was chosen by the client (ToPigs) for the development of their Piggery as it will have the least impact on the environment (water courses/wetlands; vegetation, etc.), including the Cultural Heritage (archaeological) sites. However, with clear impact on a section of the Iron Age settlement features, archaeological mitigation measures needed to be implemented, and
the client accepted these actions. This included detailed mapping of all the sites and features, as well as archaeological excavations in these areas (Archaeological Zone 2). Although the archaeological sites and features in Archaeological Zone 1 will not be impacted, these LIA sites were also mapped in detail.

The mapping of a section of the stone walled sites in Archaeological Zone 1 was undertaken, while the pecked engravings identified in this area was also recorded and some traced as well, while archaeological excavations were conducted on a settlement unit/homestead in Zone. The detailed mapping of this homestead was also completed. From the mapping of the settlement features and the archaeological excavations, as well as the analysis of the cultural material recovered, the following can be concluded:

1. Settlement layout/organization comprises mainly a continuous elliptical boundary wall, enclosing a number of large and smaller circular enclosures (for cattle, smaller livestock & possible hut bays), with sections of linking walls between some enclosures. This is typical of the so-called Type N (Maggs 1976) or Group I (Taylor 1979) stone walled settlements, dating to between the 15th and 17th centuries AD, and possibly relating to the Fokeng

2. Engravings found in Archaeological Zone 1 (some of these traced and reproduced in this report) seem to depict the stone walled settlements in which they are located, and show circular enclosures bounded by a surrounding wall and in some cases “free-standing” enclosures. The one section of walling mapped in Zone 1 does not seem to have a continuous boundary wall enclosing the circular features, but this could be because the natural rock formations here takes this function

3. Agricultural activities such as ploughing and crop growing were practiced. The many upper and lower grinding stones found is evidence of this, while some possible granary stands identified in Zone 1 is further proof of this. A possible hoe fragment could point to ploughing activities. The herding of cattle and other livestock was clearly practiced. The utilization of other faunal species, such as large birds and smaller non-domesticates (through hunting and trapping) cannot be excluded, but without detailed analysis of the faunal remains this can only be hypothesized at this stage. The faunal sample from the excavations (in terms of identifiable and usable material) is too small to motivate this type of analysis at this stage however. Food sources such as freshwater mussel and landsnail was also seemingly utilized, while ostrich eggshells were used to make items such as beads for personal adornment. Bone pendants and beads were also produced, and bones used as tools such as scrapers and awls

4. Based on the mapping and decorated ceramics from the excavations the time-frame of settlement seems to be between the 15th and 17th centuries AD. The pottery possibly dates to between AD1450 & AD1650, and is similar to the pottery from the Ntsuanatsatsi facies of the Urewe tradition (Huffman 2007: 167).

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Finally, the following is recommended:
The development should be allowed to continue taking cognizance of the fact that due to the very nature of archaeological sites and deposits being subterranean, some unknown sites, features or material (including burials) could be uncovered during development work. Should this happen then an expert should be called in to investigate and recommend on the way forward. All work in the specific area should be halted until the inspection has been conducted.

REFERENCES

Aerial views of area, site location, distribution of individual engravings, excavations and Settlement Layout/organization maps: Google Earth 2015.

Geographical Location of development area: Shangoni Management Services


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