



Comprehensive and Professional Solutions for all Heritage Related Matters

**CK 2006/014630/23**

**VAT NO.: 4360226270**

**A REPORT ON THE RESULTS OF A 1ST FIELDSEASON  
OF ARCHAEOLOGICAL EXCAVATIONS  
AT A LATE IRON AGE STONE-WALLED SETTLEMENT SITE  
CALLED MAHULA HILL, IN THE KRUGER NATIONAL PARK**

For:

*South African National Parks  
643 Leyds Street, MUCKLENEUK  
Pretoria  
0001*

REPORT: APAC018/07

*A.J. Pelsler  
Professional Member of ASAPA*

Field Work conducted: *August 2017* Report: *April 2018*

**P.O.BOX 73703**

**LYNNWOOD RIDGE**

**0040**

**Tel: 083 459 3091**

**Fax: 086 695 7247**

**Email: [apac.heritage@gmail.com](mailto:apac.heritage@gmail.com)**

**Member: AJ Pelsler BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]**

©Copyright

**APELSE ARCHAEOLOGICAL CONSULTING**

**The information contained in this report is the sole intellectual property of APelser Archaeological Consulting. It may only be used for the purposes it was commissioned for by the client.**

**I HEREBY DECLARE THAT I AM AN INDEPENDENT  
RESEARCHER AUTHORISED THROUGH A RESEARCH  
AGREEMENT WITH SANPARKS TO UNDERTAKE THE REQUESTED  
ARCHAEOLOGICAL RESEARCH WORK**

A handwritten signature in black ink, appearing to read "J. Peber". The signature is written in a cursive style with a horizontal line underneath the name.

## SUMMARY

Anton Pelser of APELSER ARCHAEOLOGICAL CONSULTING cc (APAC) was requested in 2016 by staff members of Kruger National Park to undertake the assessment of a number of archaeological sites and discoveries in the KNP. During this February 2016 fieldwork one of the sites assessed was the Mahula Hill Late Iron Age stone-walled settlement, located close to Kwaggaspan in the Biyamiti region of the KNP. The site contained not only the stone-walled & terraced later Iron Age remains, but also some San rock-paintings at an associated rock-boulder/shelter site.

Anton Pelser then approached SANPARKS and Kruger National Park regarding an officially sanctioned Archaeological Research Project on the Mahula site. This request was accepted and approved in September 2016. A permit application process for the archaeological research & excavations were undertaken, and the required permit issued by SAHRA (the South African Heritage Resources Agency)[**Cased ID = 11236 & Permit ID = 2570**]. The permit is valid until the 31<sup>st</sup> of August 2020. The current Research Agreement between SANPARKS & APAC is valid until the end of December 2019.

The 1<sup>st</sup> season of archaeological excavations was undertaken during a 2 week period in August 2017. The fieldwork included a number of formal excavations on features on the site, as well as the mapping of the site and associated features and excavations. Subsequent to APAC's fieldwork, the African Conservation Trust (ACT) also conducted detailed mapping and scanning of the Stone-walled site and the rock art at Mahula as part of their research work in the Kruger National Park.

This document represents a report on this 1<sup>st</sup> season of fieldwork and the results obtained from the physical work, as well as the initial analysis of cultural material found during the excavations. The report forms part of the requirements of the SAHRA permit and also the SANPARKS Research Agreement that specifies a yearly progress report on the work completed.

The 2<sup>nd</sup> Season of fieldwork at Mahula Hill will take place during August 2018.

**CONTENTS**

SUMMARY

CONTENTS

INTRODUCTION

AIMS

METHODOLOGY

BACKGROUND

ARCHAEOLOGICAL INVESTIGATIONS

1. *MAPPING*
2. *EXCAVATIONS*
3. *RESULTS*
4. *DISCUSSION OF CULTURAL MATERIAL*

CONCLUSIONS AND RECOMMENDATIONS

REFERENCES

ACKNOWLEDGEMENTS

**A REPORT ON THE RESULTS OF A 1ST FIELDSEASON  
OF ARCHAEOLOGICAL EXCAVATIONS  
AT A LATE IRON AGE STONE-WALLED SETTLEMENT SITE  
CALLED MAHULA HILL, IN THE KRUGER NATIONAL PARK**

## **INTRODUCTION**

Anton Pelsler of APELSER ARCHAEOLOGICAL CONSULTING cc (APAC) was requested in 2016 by staff members of Kruger National Park to undertake the assessment of a number of archaeological sites and discoveries in the KNP. During this February 2016 fieldwork one of the sites assessed was the Mahula Hill Late Iron Age stone-walled settlement, located close to Kwaggaspan in the Biyamiti region of the KNP. The site contained not only the stone-walled & terraced later Iron Age remains, but also some San rock-paintings at an associated rock-boulder/shelter site.

Anton Pelsler then approached SANPARKS and Kruger National Park regarding an officially sanctioned Archaeological Research Project on the Mahula site. This request was accepted and approved in September 2016. A permit application process for the archaeological research & excavations were undertaken, and the required permit issued by SAHRA.

The 1st season of archaeological excavations was undertaken during a 2 week period in August 2017. The fieldwork included a number of formal excavations on features on the site, as well as the mapping of the site and associated features and excavations. Subsequent to APAC's fieldwork, the African Conservation Trust (ACT) also conducted detailed mapping and scanning of the Stone-walled site and the rock art at Mahula as part of their research work in the Kruger National Park.

The results of the August 2017 fieldwork are discussed in this document.

## **AIMS**

The aims of the Archaeological Investigations on the Mahula Hill Iron Age stone-walled site in the KNP are as follows:

- (a) Detailed mapping & recording (photographically) of the site and its features (stone-walled enclosures & terraces; possible hut areas; grinding hollows and small shelter containing Rock Art)
- (b) Archaeological excavations on the stone-packed terraces in areas with archaeological deposit (possible middens) and hut locations. Blocks/squares of varying sizes will be measured out in identified areas and standard archaeological techniques and methods and tools will be used in the excavations. The cultural material recovered will also be analyzed & interpreted as part of the archaeological research process. The aims of the excavations will be to recover cultural material and other evidence to help:
  - Interpret the site and reconstruct time-frame of settlement, material culture economy, cultural identity of its occupants and settlement layout/organization. All

the excavations will also be mapped onto a Site Map that will be produced & updated continuously as the research progresses at the end

- The results of the fieldwork and the analysis of the cultural material will be reported on in a number of Archaeological Research Reports as required by both SANPARKS and SAHRA on an annual basis.

(c) The proper curation of the material in a recognized institution. In this case (as per permit regulations) the material will be lodged at the Lydenburg Museum.

## **METHODOLOGY**

The methodology comprised the following:

***Background Research*** – This included background research on the archaeology and history of the larger geographical area within which the site is located.

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

### ***Mapping***

Superficial mapping of the site, stone-walled terracing, other features such as upper and lower grinders and hollows, as well as the excavations, were done using a hand-held Garmin GPS. The detailed mapping and scanning of the Mahula Hill stone-walled site and rock painting site was done by ACT. The results of this undertaking will be reported on in this report as well.

### ***Archaeological Excavations***

Two formal excavations were conducted during 2017: Block 1 (various Squares) was done on an ash/refuse midden deposit close to & under a rock overhang on one of the terraces; and Block 2 was done on top of one of the terraces where a hut was exposed. The Block 2 Hut excavations were not completed during the 2017 season.

### ***Analysis & Documentation/Curation of cultural material***

All the cultural material recovered was documented photographically and analyzed accordingly. The material was also cleaned superficially and packed in labeled bags and boxes for delivery to the Lydenburg Museum for Curation & Storage.

## **BACKGROUND**

The larger geographical area in which this site is located is characterized by granite/norite hills, outcrops and large boulders, such as Shirimantanga (where the Stevenson-Hamilton Memorial is located) & Renosterkoppies. The site – used by rangers of KNP and with a tree-house/deck built close to it – is located at such a large granite outcrop and hill called Mahula (at 368m above sea level the highest point in the area) and situated roughly halfway between

the Muhlambamadvube and Mahula rivers and their floodplain. The known presence of pottery and a grinding stone underneath one of the large boulders at the site necessitated an assessment in January 2016.

The first section of the site (a large boulder/shelter) contains a fair amount of broken pottery fragments, a lower and upper grinder, burnt bone and tortoise shell pieces and evidence of a fair amount of ashy deposit on the site. Material was found all around the edge/foot of the boulder (at the drip-line eroding out), and *cenchrus ciliaris* (buffelsgras) in the area around the granite Koppie is further evidence of disturbance and human occupation.

The presence of LIA stone walled sites around these Koppies/hills in the larger area (and in general) is a well-known fact, as is the location of San rock paintings. San rock paintings (possible giraffe and others) were identified on the rock face of the large boulder, and it is possible that there might be more in the area of Mahula. The rest of the Mahula Hill site contains substantial stone-walled terracing (for both residential and agricultural purposes), stone walled enclosures and what seems to be overhangs and shelters that were utilized as part of the settlement. There is an extensive amount of archaeological deposit present, with large amounts of both decorated and undecorated pottery, bone and shell found all over the site, as well both loose upper and lower grinders and some “fixed” grinding hollows on flat granite surfaces. These were usually for communal purposes rather than for individual household use like the other movable ones.

It is therefore clear that the site was the location of a fairly substantial LIA settlement for a relatively long time period. The presence of San rock paintings, and also some quartzite & other stone tools and flakes here shows that human presence in and utilization of the area has a much longer history as well. The location of the site around the foot and higher up on the granite Hill is an indication that the site might have been occupied during a time of stress (such as the *difaqane* of the early 1800’s) when groups would have utilized such defensive positions for protection, while the fact that Mahula Hill is one of the highest points in the area overlooking the fertile floodplains further on could be an indication that the site was also occupied by a high status chief or headman of the group that lived in the larger area.

Based on a 1903 map by Stevenson-Hamilton reproduced in “Neem uit die Verlede” (Pienaar 1990: 44) the larger geographical area in which the Mahula site is situated, was settled by two Sotho-speaking groups namely the Ba-Mabayi and Ba-Hlangane at the time. It is therefore possible that either of these groups is associated with the site at some point in time. At the time of the 2016 assessment, with the little bit of decoration available, and based on Tom Huffman’s research, the most closely related type pottery (based on decoration style/motif) is the Klingbeil facies of the so-called Kalundu Tradition (Huffman 2007: 297 – 299). This would date the site to between AD1000 and AD1200, which is very early and at this stage doubtful. However, the Klingbeil type pottery was found in the Gustav Klingbeil Reserve near Lydenburg and also at Riverside near Nelspruit, which makes this a possibility. It would however be dangerous at this stage to make this conclusion based only on small fragments of decorated pottery. Decorated Klingbeil pottery is characterized by triangles in the neck of vessels bordered with slashes and punctates on the shoulder of vessels. The pottery collected from the general surface of the Mahula site contained some of these features, and looks very similar.

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

Iron Age people started to settle in southern Africa from around AD 300, with one of the oldest known sites at Broederstroom, dating to AD 470, located south of Hartebeespoort Dam. Having only had cereals (sorghum, millet) that need summer rainfall, Early Iron Age (EIA) people did not move outside this rainfall zone, and neither did they occupy the central interior Highveld area. The occupation of the region by Iron Age communities did not start much before the 1500s. Due to climatic fluctuations, bringing about colder and drier conditions, people were forced to avoid this area. Following a dry spell that ended just before the turn of the millennium, the climate became better again until about AD 1300. This coincided with the arrival of the ancestors of the present day Sotho-, Tswana- and Nguni-speakers in southern Africa, forcing them to avoid large sections of the interior (Van Schalkwyk 2012: 6-7).

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. For a basic background we will utilize Mike Taylor's (1979) three Group system. The first, Group I, dates to the 16th century, 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 II & 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. Group III is an agglomeration of circular enclosures with the outer limit marked by varying lengths of curved



walls and small circular enclosures. The aim with the mapping of the Mahula Hill site is to determine the settlement layout and to see to which Group it approximately conforms. The details will be discussed in the Mapping section of this report.

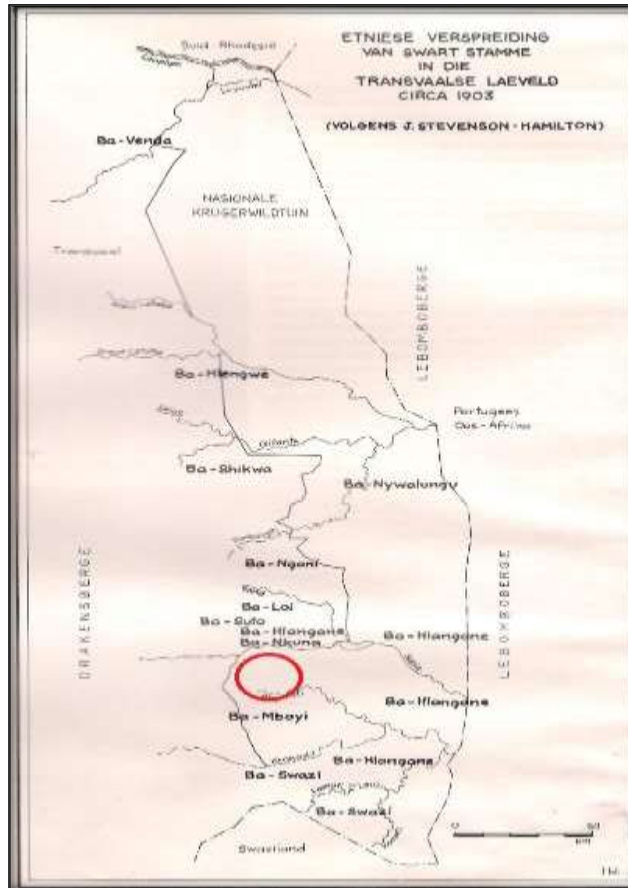
The Mahula Hill stone-walled Iron Age site is not typical of the sites mentioned above as it is a mainly a terraced settlement, with living & working spaces created by enclosing walls and natural rocky ridges and contours. To some sense it is similar to sites like Masorini near Phalaborwa in the central region of the KNP. This aspect will be discussed later in the report. Although at this stage, based on the lack of definitive dateable material available, it would be difficult to place Mahula Hill within the larger Iron Age sequence, it is highly likely that it falls between the latter part of the Middle Iron and earlier part of the Late Iron Age using Huffman's criteria.



**Fig.1: General location of the Mahula Hill site (Google Earth 2018).**



**Fig.2: Closer view of site location also indicating position of rock boulder with San paintings (Google Earth 2018).**



**Fig.3: 1903 Map of KNP showing distribution of various groups in the area (adapted from Pienaar 1990 & based on Stevenson-Hamilton map). The approximate location of the Mahula Hill site indicated by the red circle.**



**Fig.4: Mahula Hill main site.**





**Fig.5: The large boulder at the foot of Mahula Hill.  
San rock paintings are located here.**



**Fig.6: Some of terrace walling at the site.**



**Fig.7: Some grinding hollows on Mahula Hill.**



**Fig.8: A lower grinding stone on the Hill site.**



**Fig.9: View of one of the walled terraces with mapping of the site & measuring out of excavations in process.**



**Fig.10: Another view of the environment at Mahula Hill.**





**Fig.11: The view from the top of Mahula Hill.**



**Fig.12: The main approach up Mahula Hill.**



**Fig.13: View towards the top of Mahula Hill.**



**Fig.14: View of another walled terrace area.**

## **ARCHAEOLOGICAL INVESTIGATIONS**

The first season of archaeological research on the Mahula Hill site consisted of superficial mapping using a handheld Garmin GPS, during which a number of fixed and temporary Base points/lines were recorded, as well as the location of some upper & lower grinding stones and the location of the two excavation blocks measured out in August 2017. More detailed mapping will be done during the following excavation seasons.

As part of the fieldwork some surface sampling was also undertaken to collect especially more decorated pottery to help provide a relative date of occupation, as well as the possible cultural identity of the occupants of the settlement site. Formal excavations were in the form of 2 Blocks (Block 1 & 2), with a number of squares in each Block excavated in 2017. Block 1 was close to a small rock overhang on one of the stone-packed terraces containing a



relatively rich ashy deposit (ash midden) and Block 2 on another terrace where a hut would have been located. The results of these excavations will be discussed in a separate section on this report.

As part of the archaeological investigation of the Mahula Hill site, the African Conservation Trust (ACT) also undertook some detailed scanning and mapping of the site in August 2017 subsequent to APAC's fieldwork. Their work aimed at scanning the rock art shelter and images situated here and doing infrared enhancing of the rock paintings, while the mapping of Mahula Hill aimed at providing detailed imaging of the hill and its man-made features (terraces and stone walled enclosures). ACT used a Digital Total Station/DTM/Canon E0S5D Mark IV 35mm camera/LIDAR, as well as GIS, to produce images of the hill site & rock art.

### ***Results of 2017 Mapping***

The mapping undertaken by APAC is very superficial at this point in the project, and basically aimed at fixing permanent & temporary Base Points on a section of the site from which to measure out excavations and to set up a basic grid system on this section of the site. Some lower and upper grinding stones were also recorded using the handheld GPS.

Detailed mapping will be done in subsequent seasons in conjunction with using the maps produced by ACT.

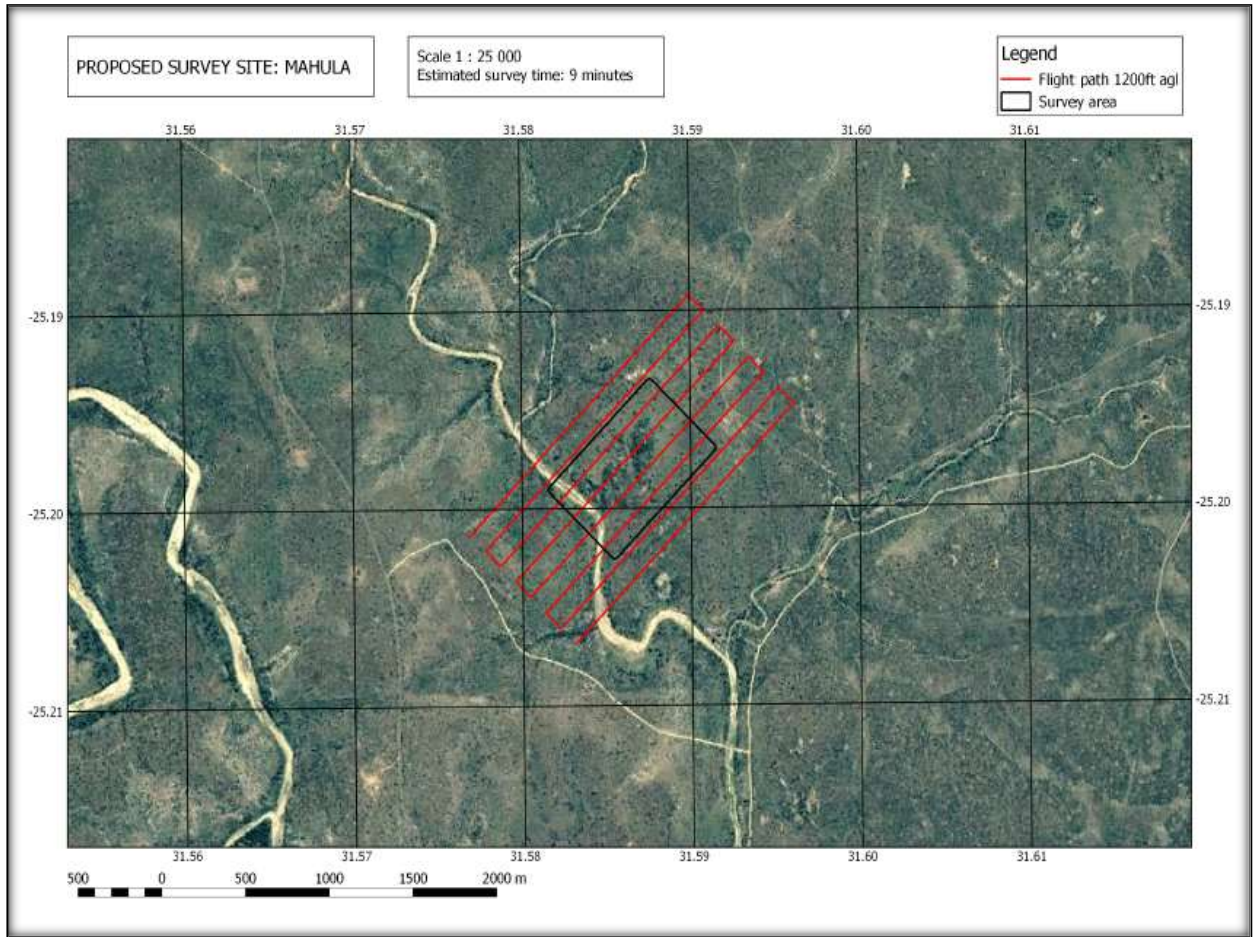


**Fig. 15: Aerial view showing the location of the various Base Points on the site (1-9) & the two Blocks measured out for excavations in 2017 (Google Earth 2018).**



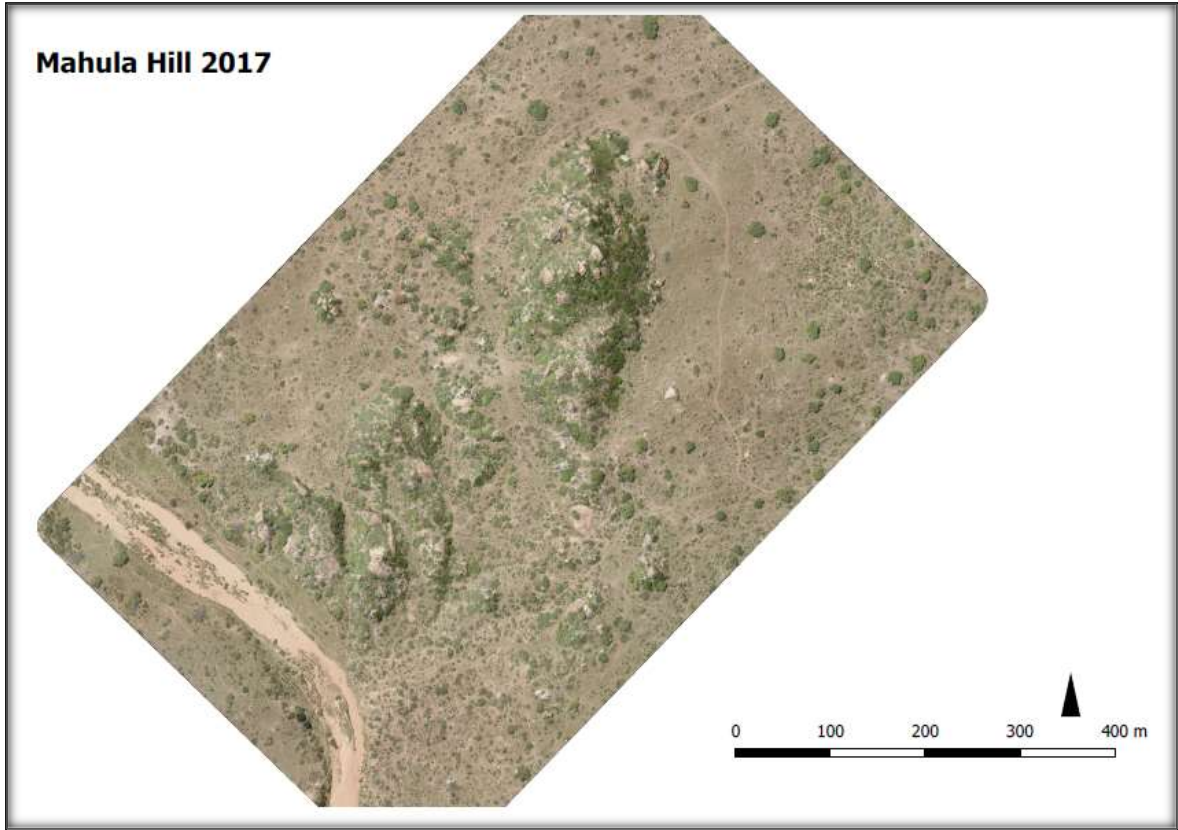
**Fig.16: The positions of the Upper & Lower grinding stones (UG & LG)  
[Google Earth 2018].**

The African Conservation Trust work on Mahula during early September 2017 aimed at scanning the rock art on the site, as well as doing detailed scanning and mapping of the Hill site and the features on it. The result of this work was a number of infrared enhanced images of the rock art (which indicated a number of other images on the rock panel not visible by the naked eye), aerial views and 3D scan models of the Mahula Hill site and a Virtual Tour model of Mahula. Some of these images and models are shown here in this report, while a detailed report by ACT will be presented at a later stage. The data captured by ACT will be used in the subsequent field research on Mahula to produce a detailed reconstruction of the site, as well as the layout and organization of the settlement during the Iron Age occupation of Mahula.



**Fig.17: Survey Map (LIDAR) of the Mahula area mapped by ACT (@ACT 2017).**

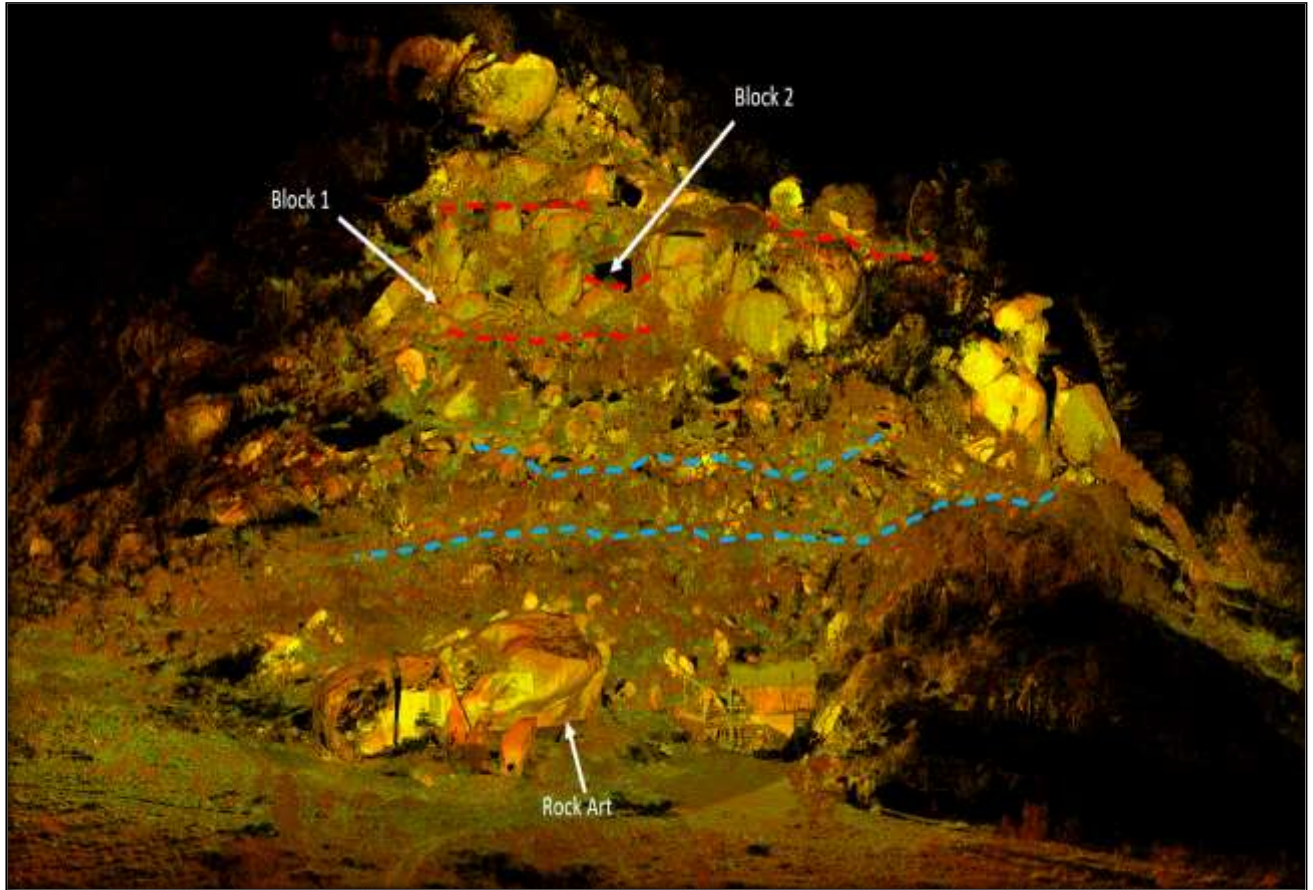




**Fig.18: Aerial image of Mahula Hill and surrounds from the LIDAR Survey Map (@ACT 2017).**



**Fig.19: Scan image of Mahula Hill (Front View). The rock art is located at the large boulder at the bottom to the left of the wooden deck (@ACT 2017).**

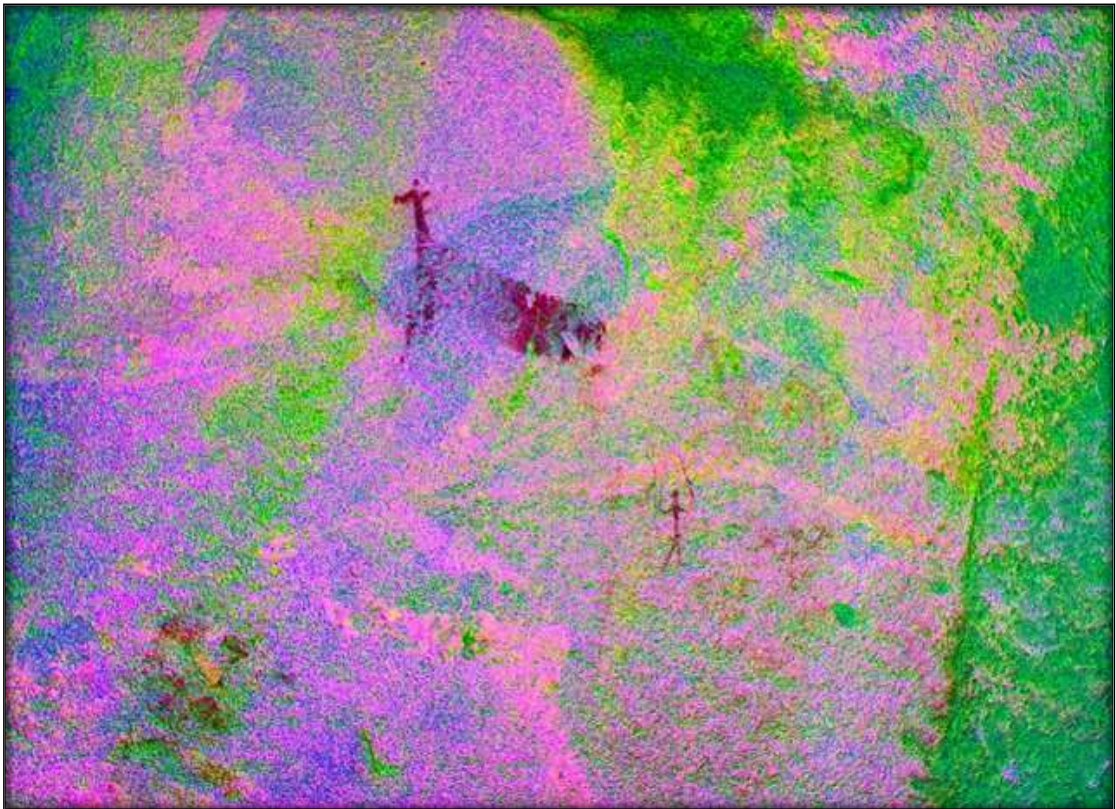


**Fig.20: The same scan image as in Fig.19 showing approximate positions of the two excavations (Block 1 & 2) conducted in 2017, as well as the location of the rock art. Also added here are the approximate location of known terraces (red lines) & possible other/uncertain terraces (blue lines). Adapted from ACT.**



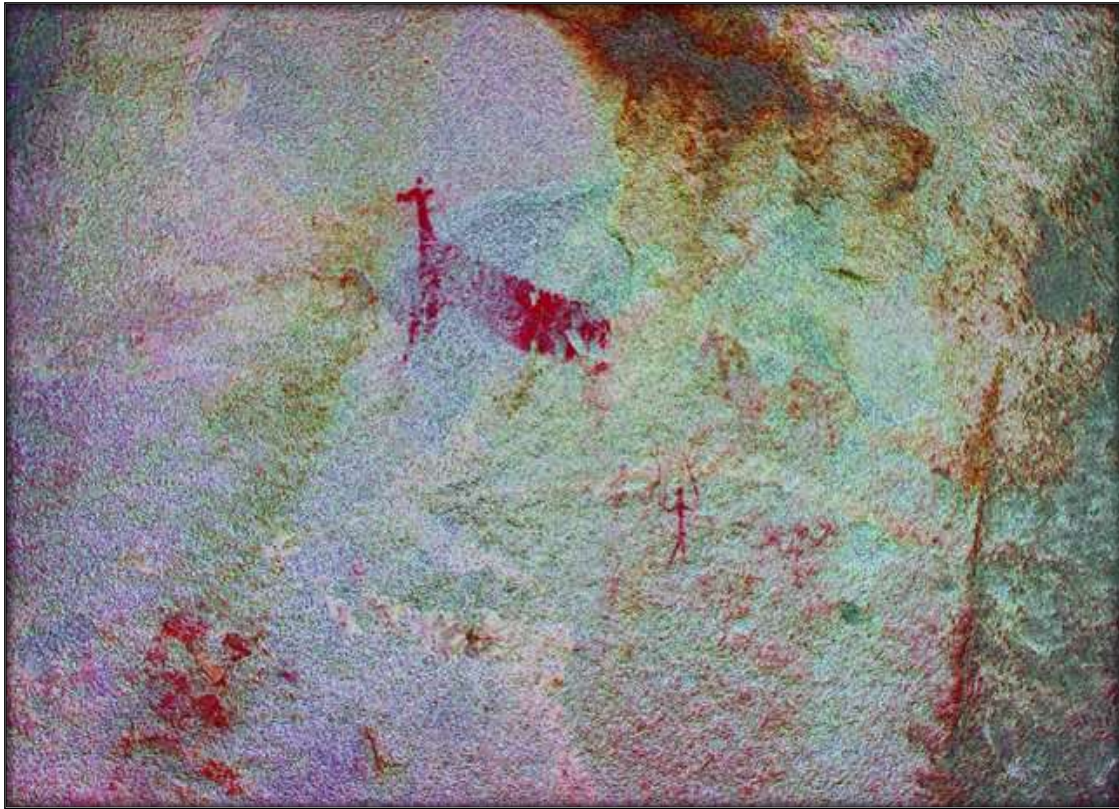


**Fig.21: Normal photo of rock art panel at Mahula (@ACT 2017).**



**Fig.22: Enhanced/infrared photo of rock art panel. Note the additional human figures on the panel (@ ACT 2017).**





**Fig.23: Further enhanced photo of rock art panel (@ACT 2017).**

### ***Results of the 2017 Excavations***

The August 2017 excavations will be discussed in the next sections, and will aim at explaining the methodology used, the aims of these formal excavations, the results of these excavations (including the analysis of the cultural material recovered) and the deductions made from these results. The aims of the 2018 fieldwork will also be provided.

Various Base Points (fixed and temporary) were determined first in order to set up a basic grid system on sections of the site from where various excavation blocks were measured out on features such as terraces and ashy deposits/ash middens. Base Point 1 is a fixed point at the Trig Beacon on top of Mahula Hill, which is at a height of 368m above sea level. Base Point 2 was set up below the hill, to the east of the trig beacon, at an elevation of around 360m above sea level, and close to a small rock overhang with a dense ashy deposit containing cultural material (pottery, faunal remains). From BP2 to BP3 (N/S direction) a baseline (10.15m in length) was set up running from the small shelter to the other side of a large boulder below that. From BP3 another line (approx. 26.60m long) was set up to BP4 (E/W direction). On this line (9.15m from BP3) another Base Point (BP5) was recorded and from BP5 in an N/S direction (onto another terrace located slightly higher up) BP6 was fixed. A baseline was set up between BP6 and BP7 (in a N/S direction). From this baseline the Block 2 excavation was measured out as well. A secondary baseline (between BP8 & BP9, in an E/W direction) was also set up here, creating a grid that was used to measure out the various squares on Block 2.

BP1 = S25 11 47.50 E31 35 14.60

BP2 = S25 11 46.80 E31 35 15.30



BP3 = S25 11 47.30 E31 35 15.50  
BP5 = S25 11 46.70 E31 35 14.80  
BP7 = S25 11 46.80 E31 35 14.50  
BP9 = S25 11 46.60 E31 35 14.50

BP4 = S25 11 46.20 E31 35 15.00  
BP6 = S25 11 46.80 E31 35 14.60  
BP8 = S25 11 46.80 E31 35 14.60

### ***Block 1***

Block 1 was located at and close to a small rock “shelter/overhang” with a fairly dense ashy deposit (ash midden) containing cultural material including pottery, quantities of quartz & other stone tools/flakes and faunal remains. The Block was measured out using Base Line 1 (between BP2 & BP3), and consisted of the following squares of 1m x 1m each: 1A-D; 2A-D; 3A-C; 4A-C & 5A-C.

General surface cleaning was done and the cultural material recovered from this action was recorded and bagged as Surface Material from Block 1. Formal excavating of Squares 2C & 2D was undertaken as these 2 squares were located directly underneath the overhang and in a section with the thickest and most undisturbed portion of the ashy deposit in this area.

Although it was also initially thought that a possible hearth and even metal smelting feature was located here, it was later concluded that this is just an area containing an ash midden, with some of the material originating from another terrace above it. Block 1 was covered and further (future) excavations are considered here to help increase the material sample size from this section of the site and possibly obtain dateable material (charcoal) for radiocarbon dating.



**Fig.24: The location of Block 1. Note the small “shelter/overhang & the ashy deposit.**



**Fig.25: The grid set-up at Block 1.**



**Fig.26: Surface cleaning in progress at Block 1.**



**Fig.27: Block 1 squares 2C (front) & 2D (back) after cleaning.**



**Fig.28: Block 1 square 2C completed.**





**Fig.29: Block 1 squares 2C & 2D completed.**  
**The rocks found here originates from**  
**a partially collapsed terrace wall adjacent to the boulder**

### ***Block 2***

Block 2 was an excavation measured out on a walled terrace situated one level up from the Block 1 excavation. The aim was to see if a hut was located on this terrace. A lower grinder located here also indicated the possible presence of a hut in this area.

A grid was measured out on the chosen area, consisting of 8 blocks (or squares) rectangular in shape of 2m x 1m in size. The focus of the 2017 excavations was on 4 of these blocks located in the center of the grid. These blocks were labeled as Squares 1 – 4, with each measuring 2m (N/S) x 1m (E/W) in size.

After careful surface cleaning of the whole Block 2 (the soil from this was also sieved and material collected as Surface Sample), the formal excavations focused firstly on Squares 2 & 4. The cultural material collected from the surface cleaning included small amounts of pottery, quartz pieces and faunal remains (bone).

A fairly large amount of quartz (evidently small flakes/cores/chunks) was recovered from Square 4 in the first 5cm's, with hardly any bone, pottery and other cultural material being present. With so much quartz coming out here it was decided to stop the excavation in Square 4 until the next field season and to concentrate on Squares 1 and 2 in order to see if a hut was situated at this spot on the terrace.

In both Squares 1 and 2 hut clay/debris was found at a depth of around 10cm below the PSL (Present Surface Level). Proportionally more material (pottery, bone, quartz, others) was also found in the clay debris than higher up. After removal of the hut clay debris sections of the

original hut floor (preserved underneath) started appearing and this was followed in both Squares 1 and 2. More cultural material was also found underneath the debris and on top of the floor, and included pottery (some with rims and decoration), faunal remains, a glass trade bead and more quartz (some formal flake-tools, cores and chips/chunks as well).

After the removal of the hut debris and exposing of the floor remains under that the approximate size of the hut could be determined to some extent. It seems to have a diameter of between 2m and 3m. Whether or not this is a cooking hut or sleeping hut is not possible to determine at this stage as the excavation of the hut has to be continued and finalized during the following field season. The excavation of the hut had to be concluded as time in the field for 2017 had ended at this point. What is however clear is that there was a hut on the terrace located here. The reason for the large quantity of quartz and some more formal tools located here (associated seemingly with the hut) still needs to be investigated as well, but it is possible that some stone tool knapping did occur here.



**Fig.30: Block 2 measured out on one of the stone-walled terraces.**



**Fig.31: Block 2 surface cleaning in progress.**



**Fig.32: Surface cleaning done.  
Squares 1 – 4.**



**Fig.33: Exposed hut rubble in S1 & S2.**



**Fig.34: Another view of the hut rubble.**





**Fig.35: Section of exposed hut floor in S2.**



**Fig.36: Block 2, Squares 1 & 2 completed.**





**Fig.37: Close-up of S1 & 2 done for 2017.**



**Fig.38: Close-up of glass bead from Block 2.**



**Fig.39: Square 1. Some bone and pottery is visible underneath & between the hut rubble.**

## **2017 Cultural Material**

A fairly large amount of material was recovered from the Block 1 and 2 excavations in August 2017, taking into consideration that relatively limited work was possible during the 1<sup>st</sup> field season. Approximately 6500 objects in total were recovered and include faunal remains & shell, pottery, stone objects, glass and metal beads and others. Although the largest percentage of the sample is represented by unidentifiable bone & shell, undecorated pottery & stone flakes, there are some identifiable faunal remains, decorated pottery and pottery with rims, worked bone & shell objects and other individual items. The details of the analysis of the recovered material are discussed below, and will be used in the end in providing a preliminary interpretation of the Mahula Hill site.

## **General Surface**

This sample consists of 5 pieces of decorated pottery without rims. Four of these are relatively thick-walled and could have been used for storage purposes, while the thin-walled piece could have come from a drinking vessel. The decoration types/styles/motifs include stylus impressions, incised lines and bands/panels of ladder-like & triangle decorations. With no rims present it is not possible to determine the position of the decorations on the various vessels, but it is seemingly below the rim and neck.

Archaeologists utilize pottery & the decoration types/styles on them to provide a relative date of occupation of a site where the pottery is found, as well as a possible cultural identity of the occupants and producers of the pottery. The small sample of decorated pottery from the surface of Mahula can be used, although tenuously at this stage, for these purposes. Based on Tom Huffman's research on Iron Age pottery the decorated pieces from the surface contain decorations closely relatable to either the so-called Klingbeil facies of the Urewe Iron Age

tradition. Klingbeil is the type-site where this pottery was first encountered and is located close to Lydenburg, while it has also been found at Riverside near Nelspruit. Klingbeil pottery dates to between AD1000 & AD1200 (radiocarbon dates). The most likely candidate for the Mahula surface pottery is the so-called Maguga facies of Urewe, with the decorations on the sets of pottery very similar. Maguga also developed out of Klingbeil according to Huffman. Moreover, a site called Sk11 is located very close to the Mahula Hill site in the Kruger Park (located at the well-known Shirimatanga Koppies where the Stevenson-Hamilton Memorial is situated and around 15km north of Mahula). Based on radiocarbon dates for this site Maguga dates to between AD1200 – AD1450 (Huffman 2007: 297-303).

Very preliminarily it can be said that the Mahula Hill site dates to around AD1200 & AD1450, although there could also have been earlier Iron Age occupation at the Hill site. This would place the site's occupation and use somewhere between the later parts of the so-called Middle Iron Age and the earlier parts of the Late Iron Age. Klingbeil, from which Maguga developed, falls within the so-called Middle Iron Age phase (Huffman 2007: 296).



**Fig.40: Decorated pottery from the general surface of Mahula Hill.**

## **Block 1**

### **Surface sample**

#### *A. Pottery*

This surface sample consists of 186 pieces of pottery, with the largest number (164) being undecorated body shards. Various vessels are represented, including possible cooking, storage and drinking vessels. These were both thin and thick-walled vessels.

Another 15 of these pieces of pottery were undecorated shards with rims. Fourteen of these were too small to determine vessel profile/shape and size, but possibly represents pots with slightly everted and/or upright necks with rounded or flat rims, as well as possible bowls. At least 10 vessels are represented. Some of these vessels had been burnished (red ochre) on their outer and inner surfaces, while a few showed signs of being used as cooking vessels (with black burning visible). The 15<sup>th</sup> one was a bigger rim shard and represented a thin-walled pot with a slightly everted neck and rounded rim. This was possibly a drinking vessel.

Five (5) decorated body shards were recovered from the surface of Block 1. Two (2) have incised lines and partial triangle shapes visible. One of the pieces have a partial band of incisions, one a band of 3 deep incised lines and one a single incised line that is present.

Two (2) rim shards with decoration were found on the surface of Block 1. The 1<sup>st</sup> one is a pot with upright neck and rounded rim. The decorations on it consist of a band/row of incised triangles below the rim and on the neck of the vessel, bordered by a single incised line below. The 2<sup>nd</sup> one is a pot with an upright neck and rounded rim. The decoration on this vessel consists of a single row of punctates below the rim on the neck and body of the vessel. These decorations are typical of the so-called Maguga facies pottery, where the key features consist of broadly incised triangles and parallel lines in the necks & shoulders of vessels. Punctates occur as well (Huffman 2007: 302-303). Similar styles of decorations are also found on the earlier Klingbeil facies pottery however, where the key features are triangles in the neck bordered with slashes and punctates on the shoulder of vessels (Huffman 2007: 298-299).



**Fig.41: Undecorated pot with upright neck and rounded rim.**



**Fig.42: Decorated body shards from Block 1 surface.**



**Fig.43: Piece of decorated pot with upright neck.**





**Fig.44: Piece of decorated pot with punctate decorations.**

#### *B. Faunal Remains & Shell*

Faunal remains and shell made up the largest part of the material sample from the surface of Block 1. The largest percentage of these are made up of 1146 unidentifiable bone fragments (ribs, vertebrae, skull, long bones and other cranial & post-cranial pieces) and enamel teeth fragments (7 pieces). A number of these show evidence of being burnt. A further 6 unidentifiable bone fragments have been utilized or have evidence of being cut, while some have been made into artifacts. One (1) fragment has been highly polished and the tip of the object seems to have been worked. This was possibly a bone needle or awl. Two (2) others have holes drilled in them and were likely intended to be used as pendants.

The shell sample included 4 pieces of ostrich egg-shell (OES). None of the pieces show evidence of being worked (into beads), while there are signs of burning on the pieces. The other shell pieces from Block 1 surface consist of 65 fragments of giant landsnail (*Achatina* sp.), other terrestrial snail and freshwater mussel shell.

The identifiable faunal remains consisted of a variety of bones and teeth. Identifiable means that the material can be used to identify animals up to species level, or to sex (male/female), while the possible age of the animals, the minimum number of individuals present in the sample and specific skeletal part can also be determined. Using the identifiable remains aspects of the community's food economy can also be reconstructed such as whether or not they herded and kept domestic animals and hunted and trapped to supplement their meat diet. At this stage the identifiable remains have not been submitted to an archaeozoologist for detailed expert analysis, but will be at a later stage when the faunal remains sample from the site has increased after the 2018 field season.

Thirteen (13) pieces of microfauna, including teeth, mandibles, ribs, vertebrae, skull and other skeletal pieces formed part of the sample from the surface of Block 1. These bones represent most likely *Varanus* sp. (water/rock monitor). Tortoise (leopard tortoise or other) are represented by 57 pieces of carapace and other bones. Some of these pieces also have

evidence of being exposed to burning. One (1) mandible fragment with teeth could possibly belong to a Bov.I/II sized antelope such as steenbok, duiker or similarly sized non-domestic species, or goat/sheep if domestic. Three (3) identifiable teeth (molars) were also recovered. Two of these belong to a Bov.I/II sized antelope, while one of these is most likely a warthog molar (M3 from right mandible – Pers. Comm.: Karin Scott – 11 October 2017). The rest of the identifiable faunal sample from the surface of Block 1 consist of 28 bones (longbones, carpals/tarsals/phalanges and other skeletal parts) that can be used to determine species, age, sex and MNI'S (Minimum Number of Individuals).



**Fig.45: Identifiable micro-fauna from Block 1 Surface.**



**Fig.46: Tortoise remains from Block 1 Surface.**



**Fig.47: Identifiable teeth from Block 1 Surface.**



**Fig.48: Close-up of warthog molar.**





**Fig.49: Some of the identifiable bones from Block 1 Surface.**

### *C. Stone*

The stone from the surface of Block 1 included 29 pieces of quartz. Although mostly chunks, waste flakes and unworked pieces, some seemed to have been transformed into formal flake-tools and scrapers on possible core pieces. One (1) MSA/LSA stone tool (a broken point/arrow head on hornfels/felsite) was also recovered from the surface of Block 1. The presence of Stone Age material on the site still needs to be fully researched, but the rock paintings on the site could explain this to some extent.



**Fig.50: The quartz from the surface of Block 1.**



**Fig.51: The MSA/LSA stone tool from Block 1 surface.**

*D. Miscellaneous*

This category included 2 marula pips. The one has been broken in half, while the 2<sup>nd</sup> one has a hole drilled into it. The 3<sup>rd</sup> object from this sample was a small unidentified possible seed with a distinctive pattern on both sides. Detailed analysis of the seeds from the site also needs to be undertaken still.



**Fig.52: Marula pips from Block 1 surface.**



**Fig.53: Unidentified “seed” from Block 1 surface.**

### **Block 1 – Square 2C**

#### *A. Pottery*

The pottery sample from Square 2C included 103 undecorated body shards. Some of these show signs of burning (parts of cooking vessels?), while some have been burnished with a reddish-orange colour. The shards are both thin and thick-walled and indicate storage, cooking and drinking vessels. Four (4) undecorated rim shards were also found. These pieces were too small to determine vessels profile or shape, although one could have been a small bowl.

The decorated shards included 3 small body fragments, with 2 of these having comb stamping decoration and 1 with a band of incised lines. The three (3) decorated rim shards included the following. One (1) of these is a large pot with an upright neck and rounded rim. It has a band of incised triangles located below the rim and on the neck of the vessel. A similar piece was found during the surface sampling in Block 1, and is part of the same vessel. It is therefore also part of the Maguga facies. The 2<sup>nd</sup> piece is a small rim fragment of a possible pot with everted neck and rounded rim. The decoration visible on it consists of a band of incised lines below the rim. The 3<sup>rd</sup> decorated rim shard represents a small vessel (pot/bowl) with a band of graphite (black) followed by a band of ochre (red) followed by a band of black graphite again. The decorations are below the rim, on the neck and on the body of the vessel, while the inner surface of the vessel is decorated (burnished in a similar fashion).



**Fig.54: Decorated body shards from Block 1 Square 2C.**



**Fig.55: Undecorated rims.**



**Fig.56: The decorated rim shards from Square 2C.**

### *B. Faunal Remains & Shell*

Once again the biggest part of this sample consisted of unidentifiable fragments of bone (789 in total) that included rib, vertebrae, skull, longbone pieces and enamel (teeth fragments). Some fragments have been burnt. A further 4 unidentifiable bones have clear cut and chop marks, while another 4 seems to have been modified as possible needles and/or awls, with their tips worn and smoothed.

The shell sample consisted of 30 pieces of *achatina* sp./landsnail and freshwater mussel shell, as well as 1 piece of ostrich egg-shell. One (1) piece of mussel shell seems to have been shaped into a scraper, while the one half of another has a clear serrated edge and could have been used as a scraper as well.

The identifiable faunal remains (animal bones) consist of 33 phalanges, tarsals, carpals, radius & ulnas, tibias and others. Detailed analysis of the remains still needs to be undertaken, but represents possibly monitor lizard (*varanus* sp.), Bov.I/II & III sized antelope and other rodents. One burnt horn core ( Bov.I/II sized) was also recovered. Twenty four (24) pieces of tortoise (leopard tortoise possibly) carapace and remains were also recovered from Square 2C of Block 1.



**Fig.57: Bones with chop and cut marks from Square 2C.**



**Fig.58: Possible bone needles/awls.**

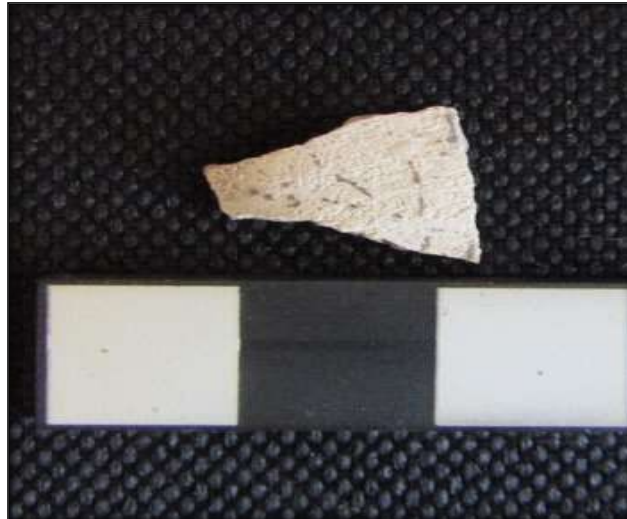




**Fig.59: Identifiable bones from Square 2C.**



**Fig.60: Burnt horn core from Square 2C.**



**Fig.61: Ostrich egg-shell from Square 2C.**



**Fig.62: Worked freshwater mussel shell piece.**



**Fig.63: Half of freshwater mussel shell with serated edge.**

*C. Stone*

The stone from Block 1 Square 2C once again consisted mainly of pieces of quartz that included waste-flakes, cores and possible flak-tools such as scrapers. A piece of possible ochre was also recovered from here. Detailed analysis and research on the “Stone Age” deposits on the site and in the excavations will be undertaken at a later stage.



**Fig.64: The quartz flakes and possible tools from Square 2C.**



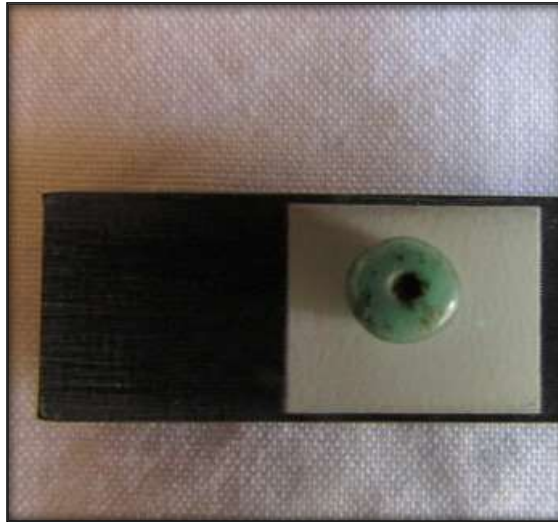
**Fig.65: The piece of possible ochre from Square 2C.**

*D. Miscellaneous*

Included in this category was 1 metal bead, as well as a green-coloured glass bead. Glass beads like this are typical finds on Iron Age sites. Beads were used as trade items (over and above their use for personal adornment) and could therefore be indicative of the Mahula site being linked with the Indian Ocean trade routes. Although one more similar bead was found in the 2017 excavations (Hut floor Block 2) the sample is at this stage too small to make any definitive conclusions and more in depth research on the beads from Mahula will have to be conducted at a later stage.



**Fig.66: The metal bead from Block 1 Square 2C.**



**Fig.67: The glass bead from Block 1 Square 2C.**

### **Block 1 – Square 2D**

The range and types of material from this square is similar to that of Square 2C, although the amounts were slightly less.

#### *A. Pottery*

The pottery sample from Square 2D consisted firstly of fifty (50) pieces of undecorated body shards. This included both thin and thick-walled pottery, while some pieces show signs of burning (being used for cooking). A few pieces have been burnished red, orangey-grey or with a white slip. There were also 4 undecorated rim pieces. All four were too small to really determine vessel shape or profile, but one seems to have been a pot with an upright neck and rounded rim. The rims of the other 3 vessels were also rounded.

The decorated pottery consisted of 2 small decorated body shards representing 2 vessels, as well as 2 rim pieces with decorations. The decorated body fragments included incised line and stylus impression decorations. The decorated rims represent 1 pot with a slightly everted neck with a row of incised lines on top of the rim, while the 2<sup>nd</sup> rim was that of a possible bowl with a row of punctates on the top of the rim. No other decorations anywhere else on the pieces were visible. Rim decorations (such as punctates) are not (currently) known for Maguga pottery (the pottery facies likely associated with Mahula). This is however associated with the Mzonjani facies of the Urewe Tradition, which according to Huffman (2007) has a distribution over an area that included the Kruger National Park (p.127-129). The most likely date linked to Mzonjani (AD450 – AD750) seems to be too early however for settlement at Mahula. The decorated pottery sample is in any case limited at this stage as well, and with no radiocarbon dating done yet providing a definitive date for occupation of Mahula hill is not possible.





**Fig.68: Undecorated rims from Square 2D.**



**Fig.69: The decorated body shards from Square 2D.**



**Fig.70: The decorated rims from Square 2D.**

### *B. Faunal Remains & Shell*

The faunal remains and shell sample from Block 2D consisted of the following:

- i. 746 unidentifiable bones, bone fragments and enamel (teeth) fragments. This includes longbone shaft pieces, vertebrae, ribs & skull fragments. Some pieces were burnt and had cut marks, and were possibly worked.
- ii. 36 pieces of tortoise carapace (shell)
- iii. 1 identifiable molar and enamel piece. Large and possibly Bov.II/III sized species
- iv. 1 identifiable molar. Primate. Adult. Too small for human.
- v. 42 identifiable bones that include possible Bov.I-III sized antelope, tortoise, as well as a possible small carnivore, rodents and water/rock monitors (lizard). The sample includes phalanges, carpals, tarsals, longbones and others.
- vi. 38 pieces of giant landsnail/achatina sp. and freshwater mussel shell. It included 10 complete shells.
- vii. 1 achatina sp.shell bead
- viii. 2 pieces of unworked Ostrich Egg Shell (OES)



**Fig.71: Worked and cut bone from Square 2D.**



**Fig.72: Some of the identifiable bone from Square 2D.**



**Fig.73: More identifiable bone from Square 2D.**



**Fig.74: Jaw bone and teeth of a small carnivore.**



**Fig.75: Primate molar from Square 2D.**



**Fig.76: Shell bead.**



**Fig.77: Pieces of ostrich egg shell.**



**Fig.78: Pieces of shell and complete shells from Square 2D.**



*C. Stone*

Fifteen (15) quartz pieces, flakes and cores were recovered from Square 2D again, while a MSA/LSA flake-tool (scraper?) on felsite or hornfels was found as well. As with the quartz and stone tool material from the rest of Block 1 detailed analysis & research will be undertaken at a later stage.



**Fig.79: Quartz and other felsite/hornfels pieces & tools from Square 2D.**

*D. Miscellaneous*

This included a small sample of charcoal (too little an amount to use for radiocarbon dating purposes) and 3 marula pips that have been broken open.



**Fig.80: The marula pips from Square 2D.**

## **Block 2 – Hut floor**

A relatively large amount of cultural material was recovered from this excavation in 2017, and included pottery & hut clay, faunal remains & shell, various stone objects/tools and other objects. Two squares (Square 1 and Square 2) were excavated in 2017 and will be continued with in 2018.

### **Block 2 Square 1**

#### *A. Pottery & Hut clay*

The pottery and clay sample from Block 2, Square 1 was relatively large. It consisted firstly of 188 pieces of undecorated body shards. Some were burnt black (having been used as cooking vessels), while a number had been burnished with red ochre and/or a yellowish clay. These shards represented both thick and thin-walled vessels and could be from storage, cooking and drinking vessels. Thirteen (13) pieces of hut clay was also recovered from Square 1.

The other pottery from Square 1 included one (1) piece of undecorated pottery that had clearly been rounded and had a drilled hole through the middle of it (although only half of the object was found). This was possibly a spindle-whorl. A piece of a broken pot lid as well as 14 undecorated rim shards, representing at least 10 different vessels, was also found in Square 1. Although most of the rim pieces were too small to really determine vessel profile or shape, at least one was a pot with an upright neck and flattened rim. Eight (8) pieces decorated body shards were recovered from Block 2 Square 1. The decoration types included punctates, incised lines/bands, stylus impressions and comb stamping. Decoration motifs could not be determined however. At least 5 vessels are represented by the decorated body shards.



**Fig.81: Possible broken spindle-whorl.  
Block 2 Square 1.**



**Fig.82: Undecorated rim pieces from Block 2 Square 1.**



**Fig.83: Piece of pot lid.**



**Fig.84: Decorated body shards from Block 2 Square 1.**



**Fig.85: Pieces of hut clay. Block 2 Square 1.**

### *B. Faunal Remains & Shell*

A fairly large amount of faunal remains and shell was retrieved from Block 2 Square 1. The biggest portion (1003 pieces) of this was unidentifiable bone fragments and enamel (teeth) pieces that included long bones, vertebrae, ribs and skull fragments. Some of these had evidence of being burnt. Nine (9) pieces of tortoise shell (carapace) and 56 pieces of achatina sp., giant landsnail, freshwater mussel pieces, as well as some small complete terrestrial shells were also recovered from here.

The identifiable faunal sample from Square 1 included two (2) pieces of a Bov.II/III 1<sup>st</sup> phalanges that has been cut in half (the pieces fit together), as well as 34 other identifiable bones and teeth. This sample is represented mainly by phalanges (toe bones) of Bov.I/II antelopes; two (2) large molars (Bov.III possibly), one (1) right lower jaw (mandible) and



teeth of a possible hyrax (dassie). As with the faunal remains recovered from the rest of the 2017 excavations, detailed analysis of the material will be undertaken at a later stage.



**Fig.86: Shells and shell pieces from Block 2, Square 1.**



**Fig.87: Identifiable 1<sup>st</sup> phalanges from Square 1.  
The pieces fit together and seem to have been cut.**



**Fig.88: Identifiable teeth from Square 1.**



**Fig.89: More identifiable bones from Block 2, Square 1.**

*C. Stone*

A relatively large number of quartz cores, chunks, waste flakes, flake-tools, possible blades and bladelettes were found in this area. These are similar to that found in the Block 1 excavations and their presence here and in close proximity to and on the hut floor needs to be examined in more detail at a later point in time. Whether or not these objects are contemporary to the Iron Age occupation of the site and the use of the hut is unclear. Further to the quartz some 15 possible MSA/LSA tools of hornfels/felsite and other material was also recovered from here.



**Fig.90: Some of the quartz cores/chunks from Square 1.**



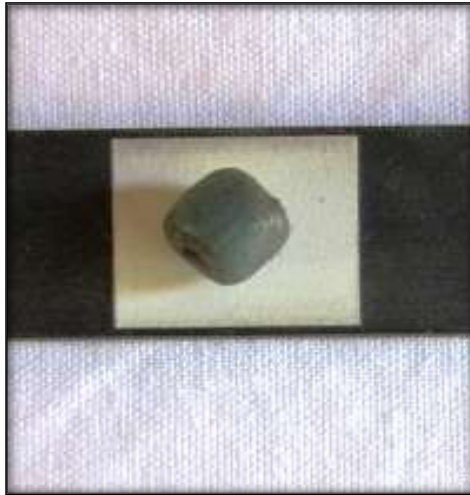
**Fig.91: Possible quartz flake-tools.**



**Fig.92: Stone tools and flakes from other materials from Block 2, Square 1.**

*D. Miscellaneous*

This category of material from Block 2 Square 1 contained 2 objects. This 1<sup>st</sup> was a small green glass bead similar to one found in Block 1 Square 2C. The 2<sup>nd</sup> object is a small piece of slag. Whether or not this is a piece of metal slag and possible evidence of metal smelting being done at the site, OR whether this is the result of the hut having burnt down (clay & thatch slag) is not yet known. This aspect will be more carefully examined during the 2018 excavations.



**Fig.93: Glass bead from Block 2, Square 1.**



**Fig.94: Piece of slag from Block 2, Square 1.**

### **Block 2, Square 2**

#### *A. Pottery & Hut clay*

This sample contained 168 undecorated body shards, both thin and thick-walled. Some have been burnt black (cooking vessels), while others have been burnished red or brownish. Twelve (12) undecorated rim pieces (representing at least 10 vessels) were also recovered from Square 2. The pieces were too small to really determine vessel shape or profile.

Four (4) decorated body shards were recovered from this square. The decoration types include incised lines and bands of incisions and rows of circular (dot-like) punctates.

Four (4) pieces of hut clay was removed from Square 2 as well.





**Fig.95: Undecorated rim shards from Block 2, Square 2.**



**Fig.96: The decorated pottery from Square 2.**



**Fig.97: Piece of hut clay with pole impression.  
Block 2, Square 2.**

*B. Faunal Remains & Shell*

The sample was similar to that recovered from Block 2, Square 1 (albeit smaller in size). It included 627 unidentifiable pieces of bone (from various cranial & post-cranial skeletal parts) and enamel fragments. Some pieces were burnt. Another small bone fragment with clear parallel lines or incisions were also recovered, although it is unsure if these are deliberate decorative markings on the bone piece.

Identifiable bone and teeth consisted of 22 pieces that were mostly phalanges and carpals of Bov.I-III-sized antelopes. Once again detailed archaeozoological analysis will be conducted at a later stage.

The shell sample from Square 2 included 40 pieces of *achatina* sp./landsnail shell, as well as some complete small shells. One (1) shell bead was also found.



**Fig.98: Some of the identifiable bone from Square 2.**



**Fig.99: Shell bead from Block 2, Square 2.**

### *C. Stone*

Once again a fairly large number of both quartz objects (including cores and possible flake-tools and waste/chunks/chips) and Stone Age stone tools on other material were found in the excavation (278 & 13 in total respectively). These were found both above the hut floor level and in between the clay/plaster fragments and the floor of the hut. Detailed analysis of the material needs to be undertaken and the presence of these “Stone Age” objects in an Iron Age setting explained.



**Fig.100: The stone material from Block 2, Square 2.**

## **CONCLUSIONS AND RECOMMENDATIONS**

In conclusion it is possible to say that the 1<sup>st</sup> Season of Archaeological Excavations at the Mahula Hill Iron Age Site in the Kruger National Park, was conducted successfully. The aims of the Archaeological Investigations on the Mahula Hill Iron Age stone-walled site in the KNP are as follows:

- a. Detailed mapping & recording (photographically) of the site and its features (stone-walled enclosures & terraces; possible hut areas; grinding hollows and small shelter containing Rock Art)
- b. Archaeological excavations on the stone-packed terraces in areas with archaeological deposit (possible middens) and hut locations. Blocks/squares of varying sizes will be measured out in identified areas and standard archaeological techniques and methods and tools will be used in the excavations. The cultural material recovered will also be analyzed & interpreted as part of the archaeological research process. The aims of the excavations will be to recover cultural material and other evidence to help:
  - Interpret the site and reconstruct time-frame of settlement, material culture economy, cultural identity of its occupants and settlement layout/organization. All the excavations will also be mapped onto a Site Map that will be produced & updated continuously as the research progresses at the end
  - The results of the fieldwork and the analysis of the cultural material will be reported on in a number of Archaeological Research Reports as required by both SANPARKS and SAHRA on an annual basis.
- c. The proper curation of the material in a recognized institution. In this case (as per permit regulations) the material will be lodged at the Lydenburg Museum.

The first season of archaeological research on the Mahula Hill site consisted of superficial mapping using a handheld Garmin GPS, during which a number of fixed and temporary Base points/lines were recorded, as well as the location of some upper & lower grinding stones and the location of the two excavation blocks measured out in August 2017.

As part of the fieldwork some surface sampling was also undertaken to collect especially more decorated pottery to help provide a relative date of occupation, as well as the possible cultural identity of the occupants of the settlement site. Formal excavations were in the form of 2 Blocks (Block 1 & 2), with a number of squares in each Block excavated in 2017. Block 1 was close to a small rock overhang on one of the stone-packed terraces containing a relatively rich ashy deposit (ash midden) and Block 2 on another terrace where a hut would have been located.

As part of the archaeological investigation of the Mahula Hill site, the African Conservation Trust (ACT) also undertook some detailed scanning and mapping of the site in August 2017 subsequent to APAC's fieldwork. Their work aimed at scanning the rock art shelter and images situated here and doing infrared enhancing of the rock paintings, while the mapping of Mahula Hill aimed at providing detailed imaging of the hill and its man-made features (terraces and stone walled enclosures). ACT used a Digital Total Station/DTM/Canon EOS5D Mark IV 35mm camera/LIDAR, as well as GIS, to produce images of the hill site & rock art.

The mapping undertaken by APAC is very superficial at this point in the project, and basically aimed at fixing permanent & temporary Base Points on a section of the site from which to measure out excavations and to set up a basic grid system on this section of the site. Some lower and upper grinding stones were also recorded using the handheld GPS. The



African Conservation Trust work on Mahula during early September 2017 aimed at scanning the rock art on the site, as well as doing detailed scanning and mapping of the Hill site and the features on it. The result of this work was a number of infrared enhanced images of the rock art (which indicated a number of other images on the rock panel not visible by the naked eye), aerial views and 3D scan models of the Mahula Hill site and a Virtual Tour model of Mahula. Some of these images and models are shown here in this report, while a detailed report by ACT will be presented at a later stage. The data captured by ACT will be used in the subsequent field research on Mahula to produce a detailed reconstruction of the site, as well as the layout and organization of the settlement during the Iron Age occupation of Mahula.

A fairly large amount of material was recovered from the Block 1 and 2 excavations in August 2017, taking into consideration that relatively limited work was possible during the 1<sup>st</sup> field season. Approximately 6500 objects in total were recovered and include faunal remains & shell, pottery, stone objects, glass and metal beads and others. Although the largest percentage of the sample is represented by unidentifiable bone & shell, undecorated pottery & stone flakes, there are some identifiable faunal remains, decorated pottery and pottery with rims, worked bone & shell objects and other individual items.

The general surface sampled material consists of 5 pieces of decorated pottery without rims. Four of these are relatively thick-walled and could have been used for storage purposes, while the thin-walled piece could have come from a drinking vessel. The decoration types/styles/motifs include stylus impressions, incised lines and bands/panels of ladder-like & triangle decorations. With no rims present it is not possible to determine the position of the decorations on the various vessels, but it is seemingly below the rim and neck.

Archaeologists utilize pottery & the decoration types/styles on them to provide a relative date of occupation of a site where the pottery is found, as well as a possible cultural identity of the occupants and producers of the pottery. The small sample of decorated pottery from the surface of Mahula, as well as that from the Block 1 & 2 excavations in 2017, can be used, although tenuously at this stage, for these purposes. Based on Tom Huffman's research on Iron Age pottery the decorated pieces from the surface contain decorations closely relatable to either the so-called Klingbeil facies of the Urewe Iron Age tradition. Klingbeil is the type-site where this pottery was first encountered and is located close to Lydenburg, while it has also been found at Riverside near Nelspruit. Klingbeil pottery dates to between AD1000 & AD1200 (radiocarbon dates). The most likely candidate for the Mahula surface pottery is the so-called Maguga facies of Urewe, with the decorations on the sets of pottery very similar. Maguga also developed out of Klingbeil according to the Huffman. Moreover, a site called Sk11 is located very close to the Mahula Hill site in the Kruger Park (located at the well-known Shirimatanga Koppies where the Stevenson-Hamilton Memorial is situated and around 15km north of Mahula). Based on radiocarbon dates for this site Maguga dates to between AD1200 – AD1450.

Very preliminarily it can be said that the Mahula Hill site dates to around AD1200 & AD1450, although there could also have been earlier Iron Age occupation at the Hill site. This would place the site's occupation and use somewhere between the later parts of the so-called Middle Iron Age and the earlier parts of the Late Iron Age. Klingbeil, from which Maguga developed, falls within the so-called Middle Iron Age phase.

Analysis of the other cultural material from the 2017 season of excavations gives us some more clues on the Iron Age settlement phase at the site, even though expert analysis of the faunal remains & shell and stone tools have not yet been undertaken. It is clear that a wide range of food (meat) sources were utilized in the diet of the occupants that included both antelopes (Bov.I-III sized), tortoises, possibly rodents, monitor lizards, freshwater mussel and land snails. Whether or not the bovids included both domestic or non-domestic species are not known at this stage and if both hunting and herding played a role is so far also unknown.

Although only 2 glass beads were found this is an indication of a possible link between the site and the Indian Ocean trade network. Possible metal slag is a very small indication of possible metal smelting and working at the site. This aspect will be investigated further in 2018 as well. The high number of quartz material (both unworked chunks and cores and possible flake tools) and other Stone Age-like tools on the site and in the excavations also need to be examined in more detail, especially the high number of these close to and in association with the Hut excavation (Block 2).

With the archaeological excavations at the Mahula Site only having really started, with one field season completed at this stage, the following is recommended regarding the future and continued archaeological research on and at the site:

1. detailed archaeozoological analysis of the faunal remains & shell recovered
2. the recovery of suitable charcoal and burnt bone for radiocarbon dating purposes
3. continued archaeological excavations at the site, including on known midden, areas with concentrations of cultural material & the terraced hut areas
4. continued and detailed mapping & interpretation of settlement layout and organization,

The 2<sup>nd</sup> field season of archaeological research on the Mahula Hill Iron Age Site will be undertaken during August 2018. The results of this work, combined with the results of the 2017 excavations will then be presented in follow-up report

## REFERENCES

Aerial views of area and site location; Excavation locations and Site map: Google Earth 2018.

African Conservation Trust (ACT): Mahula Hill Iron Age & Rock Art Site Mapping Data, Maps and Photographs

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies**. Pretoria: J.L. van Schaik.

Huffman, T. 2007. **Handbook to the Iron Age. The archaeology of pre-colonial farming societies in Southern Africa**. University of KwaZulu-Natal Press: Scottsville.

Kuper, A. 1982. **Wives for cattle: bride wealth and marriage in southern Africa**. London: Routledge and Kegan Paul.

Maggs, T.M.O'C. 1976. **Iron Age Communities of the Southern Highveld**. Pietermaritzburg: Occasional Publications of the Natal Museum, No. 2.

Mason, R.J. 1986. **Origins of black people of Johannesburg and the southern western central Transvaal AD 350 – 1880**. Johannesburg: Witwatersrand University Press.

Pienaar, U de V (red). 1990. **Neem uit die Verlede**. (Pretoria: Sigma Pers).

Taylor, M.O.V. 1979. **Late Iron Age settlements on the northern edge of the Vredefort Dome**. Unpublished M.A. Dissertation. Johannesburg: University of the Witwatersrand.

Van Schalkwyk, J.A. 2012. **Heritage impact assessment for the Proposed Fort West Phase 1 Development, Pretoria Magisterial District, Gauteng Province**. Unpublished Report 2012/JvS/004. For: Seedcracker Environmental Consulting. January 2012.

## **ACKNOWLEDGEMENTS**

I would like to acknowledge to following institutions and individuals for their assistance and support:

1. SanParks and the Kruger National Park for approving the Research Proposal and for providing us with the logistical support to undertake the research at the Mahula Hill site
2. Mr. Annoit Mashele, our Ranger, for his interest and for guarding us on site during the fieldwork
3. Me. Vanessa Strydom of KNP for introducing us to the site in the first place and for her interest in our work
4. Mr. Jannie Jurgens for his support and interest in the project and the work on the site
5. Mr. Carl Grossman of ACT, as well as his team, including Me. Annie van de Venter, for doing the detailed mapping of the Mahula Hill Iron Age Site & Rock Art shelter and for providing us with the consent for utilizing the information and data recorded during their work on the site during September 2017
6. Me. Anneleen van de Water and Mr. Bart Overkamp for their participation in, assistance with and continued interest in and support of the Archaeological Research on Mahula Hill
7. And last but certainly not least, the Excavation Team:
  - Mr. Jacques Hattingh
  - Me. Jenny Halvatzis
  - Mr. Ricky Kruger

Without your support, assistance, interest and hard work on the research, logistics and planning of the project this would not be possible at all. Thank you very much.