

Comprehensive and Professional Solutions for all Heritage Related Matters
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**A REPORT ON PHASE 2 ARCHAEOLOGICAL MITIGATION WORK:
PROPOSED TOWNSHIP DEVELOPMENT
IN BARKLY WES ON A PORTION OF THE REMAINING EXTENT OF ERF 687,
BARKLY WES (DIKGATLONG LOCAL MUNICIPALITY)**

For:

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REPORT: APAC022/35

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May 2022

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A handwritten signature in black ink, appearing to be 'A. Pelser', written in a cursive style.

SUMMARY

APAC Archaeological Consulting cc (APAC cc) was appointed by Maxim Planning Solutions Proprietary Limited to undertake the Phase 2 Archaeological Mitigation of a number of Stone Age open-air surface sites that will be impacted by the proposed development of a new Township Area in the Dikgatlong Local Municipality (Barkly West) in the Northern Cape. The sites and study area are located on a portion of the Remaining Extent of Erf 687. The project is conducted on instruction from GAP Infrastructure Corporation (Pty) Ltd.

APAC cc was originally appointed by Maxim Planning Solutions to conduct a Phase 1 HIA for the proposed township establishment in 2020. Background research indicated that there are a number of cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, including the Canteen Kopje Archaeological Site (a Provincial Heritage Site nominated as a site of National Significance) about 1.3km south-east of the town. It was during this assessment that the Stone Age sites were identified and recorded by Pelsler (**See APAC020/22**). With the sites located in relative close proximity to Canteen Kopje, and containing similar material, it was recommended that Phase 2 Archaeological Mitigation work be carried out before the proposed development commences. This included (1) a detailed Phase 2 Assessment of the area to map the occurrence of the Stone Age sites and material; (2) Comprehensive and detailed sampling of surface material after obtaining a permit from SAHRA; (3) Conducting of Test excavations in selected areas to determine the presence of and the nature of the archaeological deposits and (4) The implementation of an Archaeological Watching Brief for when the development activities commences. This will ensure that if in situ deposits are exposed that the material can be recovered and studied and preserved.

SAHRA approved these recommendations in their Final Comments Letters dated 23rd April 2021 on the township establishment. A permit for the work was issued to APAC cc (**Permit ID#3262 & Case ID#16402**) in November 2021. Dr. David Morris, Head of Archaeology at the McGregor Museum in Kimberley, agreed to act as Principal Investigator for the project, while the McGregor Museum's Archaeology Department will be the Curating Institute for the cultural material (Stone Age artifacts) recovered and sampled from the area during the field work.

This report focuses on the results of the fieldwork phase of the Archaeological Mitigation work that was conducted during April 2022 with the results of the work provided in this report. The results of the expert analysis of the Stone Age material sampled and contained in a Specialist Report will be included and provided to the client and SAHRA once completed as well.

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1. INTRODUCTION

APelser Archaeological Consulting cc (APAC cc) was appointed by Maxim Planning Solutions Proprietary Limited to undertake the Phase 2 Archaeological Mitigation of a number of Stone Age open-air surface sites that will be impacted by the proposed development of a new Township Area in the Dikgatlong Local Municipality (Barkly West) in the Northern Cape. The sites and study area are located on a portion of the Remaining Extent of Erf 687. The project is conducted on instruction from GAP Infrastructure Corporation (Pty) Ltd.

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The client indicated the location and boundaries of the Project Area, and the fieldwork focused on this area and the archaeological sites and material identified during the 2020 Heritage Impact Assessment.

2. TERMS OF REFERENCE

The Terms of Reference for the Barkly West Erf 687 Phase 2 Archaeological Mitigation were to:

1. *The sampling of representative Stone Age Material from open-air surface sites (Sites BW1 & BW2) that will be impacted by the proposed development activities*
2. *Site Mapping & Possible Test Excavations in selected areas*
3. *The analysis of the collected material by a Stone Age Specialist (Principal Investigator) for inclusion in a Final Phase 2 Report, and*
4. *The curation of the collected material in a recognized Institution (in this case the McGregor Museum in Kimberley's Archaeology Department).*

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two Acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1. The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. **Archaeological artifacts, structures and sites older than 100 years**
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. **Objects, structures and sites of scientific or technological value.**

The National Estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. **Sites of Archaeological and paleontological importance**
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. **Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)**

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²

- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the Act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of the Act deals with archaeology, palaeontology and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves

- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

3.2 The National Environmental Management Act

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

4. METHODOLOGY

4.1. Survey of Literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2. Field Survey/Mapping/Sampling of Material

The Stone Age sites identified during the 2020 assessment (Sites BW1 & BW2) were to be sampled for representative material, while Test Excavations in selected areas were also recommended. As part of the fieldwork, surveying of the wider area was also to be undertaken to see if additional (similar) surface sites occur here. It was however clear during the mitigation work that the area where the sites are situated have been extensively disturbed during earlier mining (prospecting and diamond diggings) and that the archaeological material scattered on the surface is not in an in situ context. Test Excavations were therefore not undertaken as this would have provided little to no positive outcomes in terms of interpretation. It is believed that the surface sampled material will provide sufficient information on the Stone Age use of and presence in the specific study area.

Surface sampling on both sites was undertaken by selecting different areas around each of the originally recorded GPS points and then sampling all Stone Age material (formal tools, cores, flakes and waste) located there. Each sample “block” had a different size (circular diameter around each GPS point) to assist with determining artifact density as well. For BW1 there was 4 blocks (1A-1D) and for BW2 there was 3 (2A-2C). All the material collected was bagged and labeled per area sampled and will be submitted to McGregor Museum in Kimberley for final analysis and curation.

It is worth noting that open areas with good visibility were chosen over areas with dense grass and vegetation cover for the sampling and that this might eschew the interpretation of artifact density over the total area. However, with most of the area having been heavily impacted in the past through prospecting and mining/digging, it is believed that this will not make a big difference.

4.3. Oral Histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4. Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the

Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

APelser Archaeological Consulting cc (APAC cc) was appointed by Maxim Planning Solutions Proprietary Limited to undertake the Phase 2 Archaeological Mitigation of a number of Stone Age open-air surface sites that will be impacted by the proposed development of a new Township Area in the Dikgatlong Local Municipality (Barkly West) in the Northern Cape. The sites and study area are located on a portion of the Remaining Extent of Erf 687. APAC cc was originally appointed by Maxim Planning Solutions to conduct a Phase 1 HIA for the proposed township establishment in 2020. Background research indicated that there are a number of archaeological & historical sites and features in the larger geographical area within which the study area falls, including the Canteen Kopje Archaeological Site about 1.3km south-east of the town. It was during the 2020 assessment that the Stone Age sites were identified and recorded.

The topography of the area is relatively flat & open, with some small rocky ridges and outcrops present in parts. Informal settlement has encroached onto sections of the proposed development. Although large tree cover in the study area is scarce, small tree, shrub and grass cover is fairly dense in sections. This, and red sand covering parts makes visibility on the ground relatively difficult. Recent impacts (over and above the informal settlement) in the study and larger surrounding area includes power-and telecommunication lines and servitudes, a railway line on the northern boundary of the development area, the surrounding urban settlements, the R31 road and recent historical prospecting and mining/quarrying (for diamonds) in the southern portion of the proposed development area. The area would possibly also have been used in the past for agricultural purposes.

The Phase 2 mitigation work focused on the portion of the proposed development where the prospecting and mining activities had taken place and where sites BW1 & BW2 are located. The northern part of the development (less disturbed and largely covered by red sands) will be included in the recommended Archaeological Watching Brief proposed in the Final Comments Letter from SAHRA.

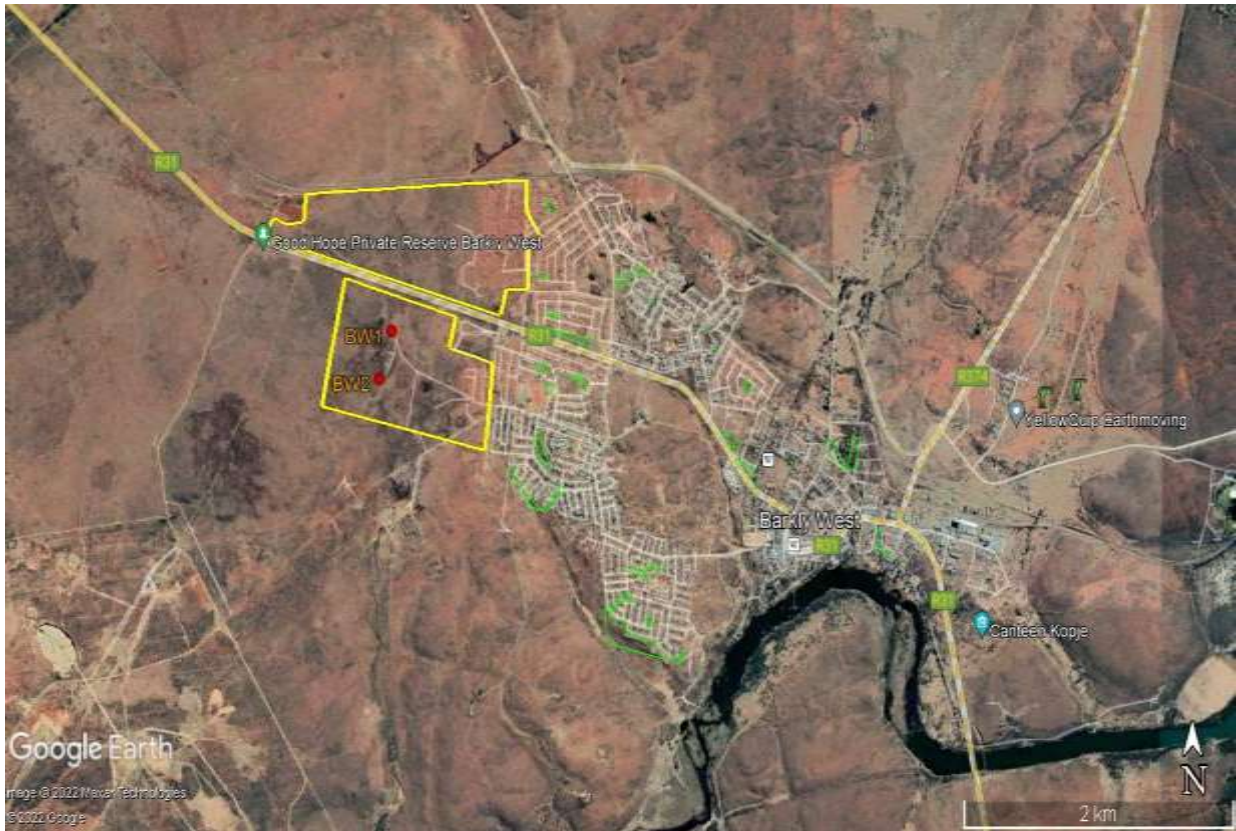


Figure 1: General location of study & proposed development area in yellow polygons, with sites BW1 & BW2 indicated (Google Earth 2022).

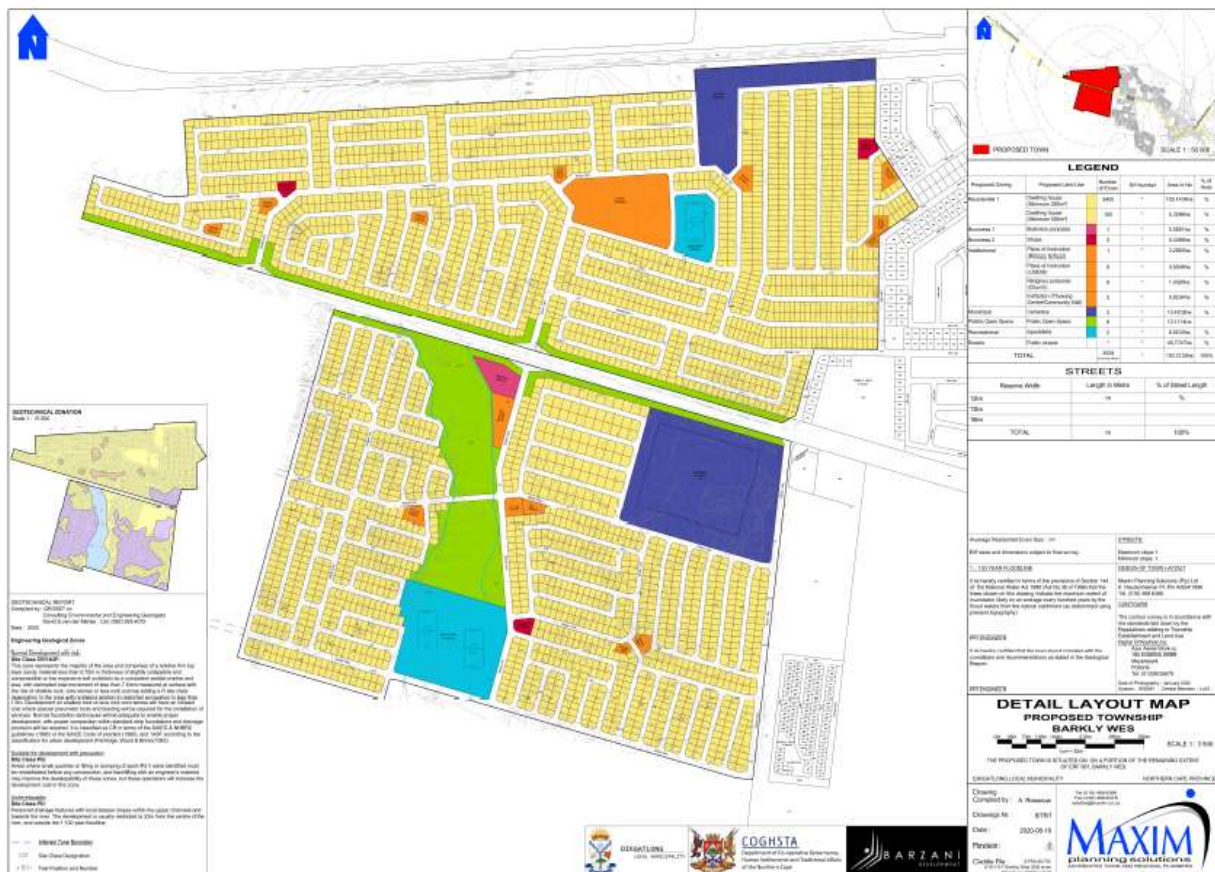


Figure 2: Detailed layout map of proposed township (provided by Maxim Planning Solutions).

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided in basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation.

A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

- Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
- Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
- Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

According to David Morris of the McGregor Museum in Kimberley the archaeology of the Northern Cape is rich and varied, covering long spans of human history. The Karoo is particularly bountiful. Some areas are richer than others, and not all sites are equally significant. The significance of sites encountered in the study area may be assessed against previous research in the region and subcontinent. The region's remoteness from research institutions accounts for a relative lack of archaeological research in the area. The area has

probably been relatively marginal to human settlement for most of its history, yet it is in fact exceptionally rich in terms of Stone Age sites and rock art, as a relatively few but important studies have shown (Morris 2006).

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylyfeld, Demaneng, Mashwening, King, Rust & Vrede, Paling, Gloucester and Mount Huxley to the north. Rock engraving sites are known from Beeshoek and Bruce (Morris 2005: 3).

The most important Stone Age in the area is the famous (and a declared National Heritage Site) Canteen Kopje. The site is located around 1.3km south-east of the town along the Vaal River (De Wit 2008: 53). Canteen Kopje is the site of early diamond diggings which also exposed a major archaeological occurrence of stratified Acheulean facies, subject to a current collaborative research venture by the University of Southampton, the University of the Witwatersrand and the McGregor Museum in Kimberley (www.wikipedia.org).

The two sites recorded and mitigated contained scatters of tools that could be preliminarily dated to the Earlier, Middle & Later Stone Age. The material includes core and flake tools, as well as large Acheul-type handaxes and possible choppers. This is similar to the material found at the Canteen Kopje site and is therefore fairly significant from an archaeological perspective. The two areas recorded are situated in the area where recent mining and quarrying had taken place and the material was therefore more than likely exposed by these activities and not in situ.

GPS Location of Sites: S28 31 34.20 E24 29 18.10 (BW1); S28 31 43.80 E24 29 14.70 (BW2).

In an Interested & Affected Party Letter (dated to 15 March 2021) on the initial Phase 1 HIA Report & findings, Dr. David Morris of McGregor Museum in Kimberley provided the following:

“I have read the Phase 1 AIA and note that the findings correspond with what I would have anticipated in the portion of landscape in question.

It appears that, generally, a relatively shallow deposit of red sand overlies ‘Rooikoppie’ gravel deposits cupped in an uneven underlying Ventersdorp basement profile. The gravels may be more substantial downslope.

The proximity to Canteen Kopje is mentioned, but it is to be noted that part of the singularity of the Canteen Kopje occurrence stems from the unique deposition history of that site relative to shifting patterns of river flow which was diverted in time from the north side to the south side of the hill to the east of the site. Combinations of alluvial and colluvial events were the contexts in which hominins over hundreds of millennia exploited the local andesite cobbles as raw material source. Above the Acheulean in deep gravel deposits and overlying Fauresmith, moreover, a thick capping of Hutton Sands preserve MSA and LSA, and Late Iron

Age/Korana ceramics and contact era traces – with associated fauna – are found at/near the surface in places.

The proposed development site is at a remove from this Canteen Kopje context, higher up in the landscape and further away from the river. It is likely that the archaeological deposits there would be not as rich and probably not as varied. This seems to be borne out by the Phase 1 AIA findings.

However, I note the intention to carry out Phase 2 survey and assessment and believe that test excavation at selected points would be instructive for testing the above supposition”.

Results of the April 2022 Fieldwork

Site BW1

The original site location was fairly densely overgrown with grass and sampling was done in 4 open patches situated around the original coordinates for the site.



Figure 3: A general view of Site BW1 location.



Figure 4: Some open patches around BW1 were chosen for the sampling.

Sample 1A

The sample area had a 6m diameter (sampling was done in this and all the other sample areas in a “circular” pattern moving from the GPS point outwards), with a total of 28.26m²

The GPS location for 1A is **S28 31 33.90 E24 29 18.40**.

A total of 10 Stone Age objects were sampled from the block, including waste flakes, cores, flak-tools such as scrapers and broken blades. All belong to the MSA and LSA periods, with no ESA material found. Some of the objects seem fairly heavily weathered and rolled through wind and water erosion.



Figure 5: Sample area 1A location.



Figure 6: The Stone Age material from 1A.

Sample 1B

The sample area had a 3m diameter, with a total size of 12.56m²

The GPS location for 1B is **S28 31 33.50 E24 29 18.50**.

A total of 11 Stone Age objects were recovered from block 1B. Again most relates to the MSA/LSA and includes waste flakes, cores and flake-tools such as scrapers. Two of the objects could date to the ESA, represented by largish and crude pebble tools with flake removal. Some of the artifacts also show evidence of wind and water erosion.



Figure 7: Sample area 1B.



Figure 8: The Stone Age material from 1B.

Sample 1C

The sample area was on an old stone spoil heap that resulted from earlier prospecting/diggings in the area. The sample area had a 6m diameter giving a total of 28.26m²

The GPS location for 1C is **S28 31 33.70 E24 29 17.60**.

A total of 12 Stone Age objects were recovered from this sample area, including waste flakes, cores and flake-tools such as scrapers. The MSA/LSA period is represented by the material, with ESA material not present in the sample. As with the other sample areas the material showed evidence of wind and water erosion.



Figure 9: Sample area 1C.



Figure 10: The Stone Age material from 1C.

Sample 1D

The sample area was on an old stone spoil heap in the area as well, and situated to the south of the original Site BW1 location. The sample area had a 6m diameter giving a total of 28.26m²

The GPS location for 1C is **S28 31 33.70 E24 29 17.60**.

This sample area delivered the densest number of Stone Age objects, with a total of 22 Stone recovered. The sample includes waste flakes, cores and flake-tools such as scrapers and blades. Most of these date to the MSA and/or LSA period, although a few larger, cruder pebble tools could have an earlier ESA origin. Some of the objects again show evidence of wind and water working.



Figure 11: Sample area 1D.



Figure 12: The Stone Age material from 1D.

The Site BW1 general area is disturbed to a large degree by previous prospecting and quarrying, with old pits, trenches and spoil heaps present all over. The Stone Age material found in the area is present in non-stratified (not in situ) deposits and on the surface of the landscape. The same situation applies to Site BW2 and the general area around this southern portion of the proposed development.



Figure 13: A general view of the area around BW1 looking south. The grass cover are obscuring the various pits, trenches and spoil heaps that resulted from the older prospecting/mining work here.



Figure 14: A view of the area around BW1 looking north.



Figure 15: The area around BW1 looking east.



Figure 16: The area around BW1 looking west.

Site BW2

The larger area around the original Site BW2 contains much clearer evidence of the impacts of the earlier prospecting and mining/quarrying on the property. There are also some signs of recent (informal) digging in and around some of the earlier trenches and prospecting pits. Three sampling areas were chosen around the BW2 site locality.

Sample 2A

The sample area was located very close to the original BW2 position and located on the lower section of a rock spoil heap. It had a 3m diameter, covering a total area of 12.56m²

The GPS location for 2A is **S28 31 44.00 E24 29 14.90**.

A total of 13 Stone Age artifacts were recovered from this sample area. The sample included some waste flakes, cores & core tools and flake tools such as scrapers and blades. Based on preliminary analysis these all date to the MSA and LSA. Again, as with the material sampled in the other areas, many show signs of having been exposed to wind and water erosion.



Figure 17: Sample area 2A.



Figure 18: The Stone Age material from 2A.

Sample 2B

The sample area (on and close to a rock spoil heap) had a 6m diameter, with a total size of 28.26m²

The GPS location for 1B is **S28 31 44.10 E24 29 14.20**.

A further 13 Stone Age artifacts were recovered from this location. The sample included some waste flakes, cores & core tools and flake tools such as scrapers. Most of the artifacts probably have a MSA and LSA origin, although some cruder and larger pebble tools could date to the ESA.



Figure 19: Sample area 2B.



Figure 20: The Stone Age material from 2B.

Sample 2C

The sample area was on a rock and soil spoil heap and had a 3m diameter, with a total size of 12.56m²

The GPS location for 1B is **S28 31 44.00 E24 29 15.30**.

A total of 6 Stone Age artifacts were sampled from this area, with 5 of these represented by waste flakes and flake tools such as scrapers and blades dating to the MSA/LSA. One of the objects from the sample area is a very large bifacial ESA (Acheul?) handaxe.



Figure 21: Sample area 2C.



Figure 22: The MSA/LSA material from 2C.



Figure 23: The Acheul handaxe from 2C.



Figure 24: The other side of the handaxe from 2C.



Figure 25: The general area around Site BW2.



Figure 26: Another view of the general area around BW2.



Figure 27: A large rock spoil heap close to Site BW2.

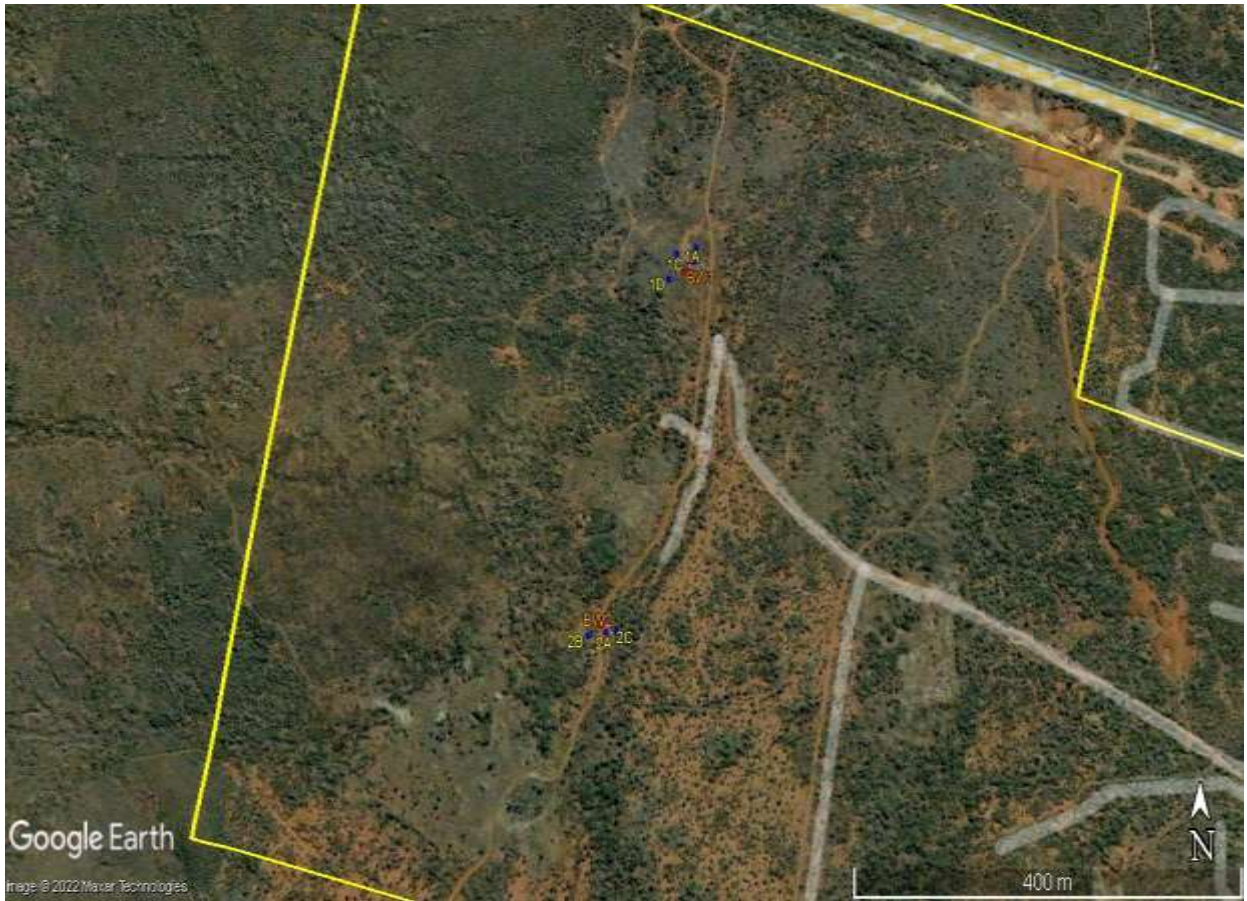


Figure 28: Closer view of area with Sites BW1 & BW2 and the sample areas around them indicated. The impact of previous prospecting/mining/quarrying is clearly visible (Google Earth 2022).



Figure 29: Closer view of Site BW1 with the sampling areas around it (Google Earth 2022).



Figure 30: Closer view of Site BW2 with the sampling areas around it (Google Earth 2022).

It is clear from the sampling work conducted at Sites BW1 & BW2 that the general area around this portion of the proposed development (the southern development footprint) has been extensively impacted through prospecting and mining/quarrying in the past. Portions of the southern development footprint have also been encroached on by informal settlement which has also impacted on the area. The impacts of the earlier activities on this portion of the development site are also evident in the Stone Age material found & sampled. There are no visible stratified deposits, with Stone Age artifacts located on the surface with MSA and LSA material found intermixed with the odd earlier ESA (Acheulian) artifacts on the same horizon. A fairly thin layer of red sands overlay gravel deposits here, in concurrence with Dr. David Morris's comments in his 2021 I&AP Letter.

The archaeological sample is also not very rich and varied, with artifact scatters of fairly low density (just more than 0.5 objects per m²). Mostly waste flakes, cores and flake-tools such as scrapers were found, while only a few blades occurred. The earlier Stone Age material (Acheul) was limited to a few individual objects. This seems also to concur with Dr. Morris's comments that because the proposed development site is situated higher up in the landscape and further away from the river (in opposition to the Canteen Kopje context closer to the river that it would be likely that the archaeological deposits here would be not as rich and probably less varied.

Because of the fairly extensive impacts through earlier prospecting and mining/quarrying in the vicinity of Sites BW1 & BW2 and the general area of the southern portion of the proposed development, it was decided to not conduct the recommended Test Excavations here. It is believed that these test excavations would have limited results and that it would not contribute towards our knowledge of the Stone Age presence in and utilization of the area. The northern section of the proposed development – although some informal settlement has

also moved onto the area – is less disturbed and it is possible that some intact deposits could occur here under the red sands covering most of that area. Again, being away from the river and the main Canteen Kopje Site, the archaeological deposit might be fairly shallow, not as rich or varied as at areas closer to the river. It is recommended that an Archaeological Watching Brief/Monitoring Program be implemented here to ensure that any intact and substantial archaeological deposits that might occur here be properly recorded and investigated before destruction.

Detailed analysis of the artifacts sampled from Sites BW1 & BW1 has not yet been concluded. This will be done at a later stage and the results reported on in a Final Specialist Research Report. Despite the fact that the analysis of the material has not been concluded and that the Specialist Report has not been submitted, it can however be concluded that the Phase 2 Archaeological Mitigation related to the Barkly West Erf 687 Township Development has been concluded successfully. An Archaeological Watching Brief/Monitoring Program is however recommended to be implemented during the construction phase and implementation of services for the proposed development. This will ensure that should any extensive and in situ archaeological deposits that might occur in the area (and especially in the northern portion of the development footprint) be exposed, that it is properly recorded and investigated.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting cc (APAC cc) was appointed by Maxim Planning Solutions Proprietary Limited to undertake the Phase 2 Archaeological Mitigation of a number of Stone Age open-air surface sites that will be impacted by the proposed development of a new Township Area in the Dikgatlong Local Municipality (Barkly West) in the Northern Cape. The sites and study area are located on a portion of the Remaining Extent of Erf 687. The project is conducted on instruction from GAP Infrastructure Corporation (Pty) Ltd.

APAC cc was originally appointed by Maxim Planning Solutions to conduct a Phase 1 HIA for the proposed township establishment in 2020. Background research indicated that there are a number of cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, including the Canteen Kopje Archaeological Site (a Provincial Heritage Site nominated as a site of National Significance) about 1.3km south-east of the town. It was during this assessment that the Stone Age sites were identified and recorded by Pelsler. With the sites located in relative close proximity to Canteen Kopje, and containing similar material, it was recommended that Phase 2 Archaeological Mitigation work be carried out before the proposed development commences. This included a detailed Phase 2 Assessment of the area to map the occurrence of the Stone Age sites and material, comprehensive and detailed sampling of surface material after obtaining a permit from SAHRA, the conducting of Test excavations in selected areas to determine the presence of and the nature of the archaeological deposits and the implementation of an Archaeological Watching Brief for when the development activities commences. This will ensure that if in situ deposits are exposed that the material can be recovered and studied and preserved.

SAHRA approved these recommendations in their Final Comments Letters of April 2021 and a permit for the work was issued to APAC cc in November 2021. Dr. David Morris, Head of

Archaeology at the McGregor Museum in Kimberley, agreed to act as Principal Investigator for the project, while the McGregor Museum's Archaeology Department will be the Curating Institute for the cultural material (Stone Age artifacts) recovered and sampled from the area during the field work.

It is clear from the sampling work conducted at Sites BW1 & BW2 that the general area around this portion of the proposed development has been extensively impacted through prospecting and mining/quarrying in the past. The impacts of the earlier activities on this portion of the development site are also evident in the Stone Age material found & sampled. There are no visible stratified deposits, with Stone Age artifacts located on the surface with MSA and LSA material found intermixed with the odd earlier ESA (Acheulian) artifacts on the same horizon. The archaeological sample is not very rich and varied, with artifact scatters of fairly low density. Mostly waste flakes, cores and flake-tools such as scrapers were found, while only a few blades occurred. The earlier Stone Age material (Acheul) was limited to a few individual objects.

Because of the fairly extensive impacts through earlier prospecting and mining/quarrying in the vicinity of Sites BW1 & BW2 and the general area of the southern portion of the proposed development, it was decided to not conduct the recommended Test Excavations here. It is believed that these test excavations would have limited results and that it would not contribute towards our knowledge of the Stone Age presence in and utilization of the area. The northern section of the proposed development – although some informal settlement has also moved onto the area – is less disturbed and it is possible that some intact deposits could occur here under the red sands covering most of that area. Again, being away from the river and the main Canteen Kopje Site, the archaeological deposit might be fairly shallow, not as rich or varied as at areas closer to the river. Detailed analysis of the artifacts sampled from Sites BW1 & BW1 has not yet been concluded. This will be done at a later stage and the results reported on in a Final Specialist Research Report.

Despite the fact that the analysis of the material has not been concluded and that the Specialist Report has not been submitted, it can however be concluded that the Phase 2 Archaeological Mitigation related to the Barkly West Erf 687 Township Development has been concluded successfully and that the proposed development can commence.

An Archaeological Watching Brief/Monitoring Program is however recommended to be implemented during the construction phase and implementation of services for the proposed development. This will ensure that should any extensive and in situ archaeological deposits that might occur in the area (and especially in the northern portion of the development footprint) be exposed that it is properly recorded and investigated.

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