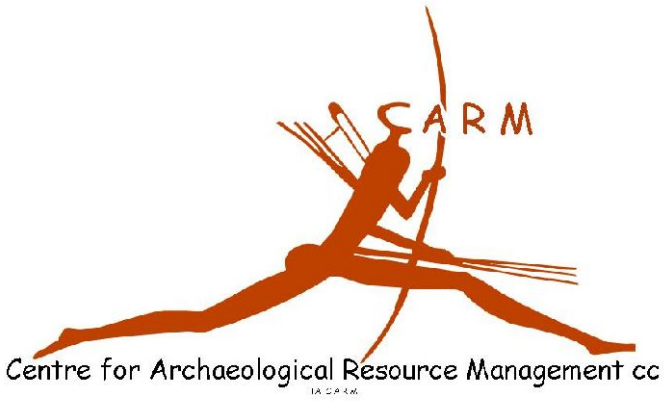
# Archaeological Heritage Survey

## Hill View Farm, Farm 437/2, near Plettenberg Bay, Bitou Municipality, Western Cape Province: Proposed housing development

by

**Royden Yates**

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## *Executive Summary*

*Stone tools from the Early and Middle Stone Ages, dating somewhere between 1.5 million and 30,000 years ago, occur in one part of the study area. This occurrence is neither very dense nor very diverse. Given these facts and that the tools are of mixed chronology, the heritage occurrence is of low significance.*

*No further mitigation is recommended.*

*However, In the event that vegetation clearing and earthmoving activities expose archaeological materials, such activities must be halted and Heritage Western Cape notified immediately. If the occurrence concerns human burials older than 60 years, the matter falls under the South African Heritage Resources Agency.*

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# 1. Introduction

## 1.1 Background

Andries Fourie of Wavelengths 252 (Pty) Ltd, proposes to undertake a housing development on Portion 2 of Hillview Farm 437 in the Bitou Municipality near Plettenberg Bay. Consequently, the Mr Fourie appointed CARM to undertake an Archaeological Heritage Impact Assessment.

## 1.2 Purpose and Scope of the Study

The objectives of the Archaeological Heritage Impact Assessment are:

- to assess the study area for evidence of archaeological materials;
- to evaluate the significance of archaeological materials in the study area;
- to assess the significance of the impact of the proposed development on archaeological resources;
- if necessary, to recommend measures in mitigation of the impacts of the proposed development on the archaeological resources.
- Prepare and submit a report to the client that meets standards required by Heritage Western Cape (HWC) in terms of the National Heritage Resources Act , No. 25 of 1999 (NHRA of 1999).

## 1.3 Study Area

The study area lies to the north north west of the resort town of Plettenberg Bay, Bitou Municipality in the Western Cape Province (Figure 1). The study area is topographically an undulating landscape with uplands separated by steep sided valleys occupied by streams. Vegetation on the uplands is mostly natural and low whereas exotic vegetation occupies much of the valley bottoms along the stream courses and is high and impenetrable. A mixture of exotic and indigenous vegetation occurs on the sides of the valleys and it varies in the density and height of growth.

Surface sediments in the study areas consist predominantly of sands and exposures of ancient alluvial gravels and cobbles on the high points. In addition, mostly displaced chunks of ferruginous sandstone occur on the surface of the hilltops (although the mechanism of exposure is not known by the writer).

A dirt track leading off from the local sewerage works provides access to the north eastern corner of the study area. Vehicle travel is possible within the study area by way of a series of tracks indicated in Figure 2.

Development proposals are focussing on the upland and more gently sloping parts of the valleys. These are not too heavily vegetated for the most part.

Development of the area would entail vegetation clearance, roadmaking, the provision of bulk services and the construction of houses, with the excavation and earthmoving that such tasks require. The impacts of these activities will be focussed in the footprint areas but will be highly intensive within those limits.

## 1.4 Approach to the Study

A representative of Wavelengths 252 (Pty) Ltd provided maps indicating the location and extent of the study areas. An examination of geo-referenced aerial photography provided the coordinates of boundary as well as development-footprint waypoints, which were then loaded into a Garmin etrex vista handheld GPS. The study area was accessed by vehicle and then inspected on foot by two qualified archaeologists (Royden Yates & Nick Walker) who searched with a separation generally

between 20 to 50 metres. The hand held GPS provided both navigation to remain within the study area as well as a record, both of observations as well as walk paths (although only one fieldworker carried a GPS).

Fieldworkers searched for surface traces of archaeological materials. By necessity, the search was limited to areas where the vegetation permitted access. The investigation examined five Zones within the study area that are possible to develop because they are not too steep and will encompass the development footprint whatever its final design. The Zones are (refer to Figure 3):

- **A** - the high ground lying in the eastern half of the property;
- **B** - the slopes south-south-west of the dam (in the west);
- **C** -the slopes north-north-east of the dam;
- **D** - the area on either side of the proposed road lying north-east of the dam and
- **E** - the north-eastern corner of the property near the present-day entrance.

Records of the search include an assessment of the viability of the survey with respect to visibility, notes on the materials found and the context, a GPS fix and digital photography (a comprehensive photographic record is available from the author).

Once fieldworkers had located archaeological heritage they made an assessment of each occurrence in terms of both its significance and its scale or extent of importance, and in terms of the impact of the proposed development, both without and with the implementation of mitigation.

Fieldworkers bore in mind the restriction of the survey to surface traces and assessed the study area for instances where archaeological heritage could be buried beneath the surface and so require special consideration.

The survey methods employed in this study are standard to archaeology the world over. If conducted diligently and under reasonable conditions for the search, the results will be a comprehensive record of surface traces of archaeological heritage and will provide a means of satisfying the requirements of the NHRA of 1999.

Overall, search visibility was moderate to poor, as detailed in the results section. Fortunately, the most severe problems with visibility occurred in areas with the lowest probability of containing archaeological heritage.

As far as the writer knows, no previous archaeological work has been undertaken in the immediate vicinity of the affected areas.

## 2. Results

Figure 3 presents the GPS walking trail. Breaks in the trail represent instances where the GPS signal was lost due to obstruction by a person, trees or topography.

No decisive traces of colonial archaeological materials were recorded (that is, material over 100 years old but younger than 350 years). Stone artefacts (tools made by flaking stone) proved to be the only category of pre-colonial archaeological evidence (that is material older than 350 years) found by fieldworkers.

### Zone A

Upland area covered by layer of sand of unknown depth, which lies over a deposit of cobbles. Cobbles are appreciably more common towards the highpoint where the surface sands appear to be eroded away. Vegetation cover over most of this Zone is “natural” (albeit affected by farming) and allows ready sight of the substrate at short, medium and to some extent long range. Survey was very effective here(refer to Figure 4).

Principal archaeological heritage in this Zone is stone artefacts. These tools seem to co-occur with cobbles and thus overall are more common upslope than lower down. Many of these tools are displaced by erosion or biological disturbance and it is doubtful that any are in exactly primary context, although much of the scatter and cobble bed is buried beneath the surface sands.

General observation – there are small piles of stones (cobbles and / or ferruginous sandstone) dotted about this upland area. Occasionally they occur in clusters. No obvious pattern to distribution. Quite inexplicable as they do not seem to be field clearance piles as there are too many of them, too close together and no open space cleared of stone. Quite recent as they are not well embedded in sediment. In addition, lower down, on the north-west slopes, there are exposures of ferruginous sand stone, some quite linear and with seemingly upended slabs. We interpret these as related to recent farming activities and not subject to the NHRA of 1999.

Please refer to Figure 3 for the locations of the following.

**Waypoint 20**: Isolated butt of quartzite blade (about one third of the original), multi-facetted prepared platform, prominent dorsal ridges (refer to Figure 5). Typologically Middle Stone Age (MSA - a period stretching from 300,000 to ca.30,000 years ago) but could be part of the later Early Stone Age (ESA - dating to between ca. 1.5 million to 300,000 years ago).

**Waypoint 21:** localised concentration of 5 -6 stone artefacts. A few cores on cobbles and flakes with cobble cortex. Generic ESA/MSA – not possible to differentiate. Probably not in original context - derived from below?

**Waypoint 22**: localised highpoint of the upland with an exposure of a dense cobble deposit. Persistent presence of quartzite stone artefacts (between 2 to 5 tools per $m^2$, mostly the former) but they are not very striking or definitive (refer to Figures 6 & 7). Cobble cores and production debris. Generic ESA for the most part, but probably some MSA.

**Waypoint 23**: exposure of ferruginous sandstone slabs, many of them seemingly upended and thus disturbed with a dispersed scatter of quartzite stone artefacts - Stone tools of a density of 1 tools per $m^2$. Not a great quantity of quartzite cobbles here, so almost all the quartzite is artefactual. Material comprises flakes and other debris, probably of the MSA.

**Waypoint 24:** quartzite core, well developed and struck from a single platform (refer to Figure 8).

**Waypoint 25:** single well formed quartzite blade with the tip missing, in clearing in thick black wattle infesting the south eastern slopes below the upland. Typologically MSA but without the context of an associated assemblage of tools one cannot be definitive on this matter as the piece could well be part of the later ESA.

**Waypoint 26:** quartzite biface, quite heavily flaked and lacking a good form (refer to Figure 9). Tip appears to be missing. Piece could also be a core.

## Zone B

The slopes south-south-west of the dam have quite thick indigenous bush with a long spindly species growing to a shrubby part at head height and a much thicker lower story of bush and grass. Some ground visible in between. Substrate is sandy soil with occasional cobbles. Visibility fine at short range but bad at long to medium range. The ground is quite steep in all places and unattractive as a human camp site. The survey was moderately effective here (refer to Figure 10).

Quite thick gravels are exposed towards the high point of Zone B . There are different to the gravels on the upland in the south east of the study area, as there is a markedly more angular component (sub-rounded) and decisive evidence for human manufacture is lacking.

Exposure of these sediments is good in a track way so the assessment is robust.

**Waypoint 27:** an exposure of cobble bed in cliff of approximately 2 m height on south side of dam. Nothing of decisive human manufacture within the in-situ cobble bed but much good quality quartzite raw material.

### Zone C

There are apparently much thicker sands in ths area to the north-north-east of the dam, as cobbles and any other stone are very scarce (a few evident in a track way). Dense low vegetation at knee height with patches of ground visible (refer to Figure 11). The even height of vegetation demonstrates that some sort of agricultural activity took place here – parallel lines of dried twigs across the area suggest a mowing, harvesting operation of some sort.

Short range visibility was fine and no archaeology was at all evident. The slope of the ground was modest compared with Zone B, but this was still enough to have discouraged people from using it as a camp-site in the archaeological past.

### Zone D

Vegetation is highly variable in the area on either side of the road running to the north-east of the dam, as it is a mix of indigenous and exotic, with the latter growing in clusters on the south side of road and in dense stands on the north with some swathes of indigenous species (refer to Figure 12). The south side is the flood plain of a stream and thus flat, whilst the indigenous vegetation is dense and wast high. The substantial dominance of the vegetation by one species points to disturbance by ploughing or overgrazing in the past.

The north side comprises valley slope and is quite steep in parts, with dense shoulder to head high vegetation. On south side of road there thus is some visibility but virtually none on the north side. However, a number of north to south aligned, 3 to 4 m wide “mown” swathes occur on the north side and these served as useful sampling corridors.

Survey was of limited and variable effectiveness in this Zone.

### Zone E

Very dense black wattle chokes most of the valley river bottom area near to the current entrance to the property and in most open areas there is thick grass and organic litter. Visibility is thus poor. Nonetheless, a few low cuttings into the sediment occur along a pathway running parallel to the eastern boundary of the study area. Slopes are fairly flat to moderately steep (Refer to Figure 13).

Survey effectiveness was limited and variable in this Zone. Nothing was seen besides the remnants of a gravel road, surfaced with moderately well sorted ferruginous gravel. This road is unlikely to be over a 100 years old and subject to the NHRA of 1999.

## 3. Assessment of Archaeological Heritage

Only one of the five Zones produced tangible archaeological evidence. This section will assess these materials and will also assess the implications of the lack of evidence from the other Zones.

### Zone A

The distribution of stone artefacts on this hill top extends beyond the border of the study area as well as onto steep lower slopes within the study area that will not be built upon. In addition, one can conjecture based on experience, that similar materials will occur on other ancient river terraces, although the observations in Zone B show that the tools are not ubiquitous.

Burial of the heritage beneath the sands covering the cobble beds is a clear factor in this zone. What needs consideration is whether or not the buried materials on average will be qualitatively and quantitatively different (i.e. better) than those exposed on the surface, and thus warrant a different assessment of significance. This is possible, although it is probable that the processes of

bio-turbation and human, wind and water erosion have simply exposed materials in a representative fashion and that the sub-surface assemblage will be much the same.

By the standards of sites in the Western Cape Province, the density of tools in Zone A is modest. The low density, particularly away from the high point, is partly a consequence of less exposure of buried materials but the density of tools associated with the well exposed cobble deposits is also low in comparison with other known localities.

A low density of evidence does not necessarily imply a low significance for the occurrence, as specialised and rare activities can create such a pattern. Pre-colonial actions in Zone A however, do not appear to be particularly specialised or rare, but rather seem to have been desultory. What is represented is evidence for sparse activities undertaken more commonly elsewhere – principally the preparation of cores and the production of basic tools and tool blanks. None of the “classic” type tools of the ESA such as hand axes and cleavers, nor quantities of the the flake blades and points of the MSA are present.

If camps were occupied here is unclear and, given the circumstances in the study area where only stone traces survive, will remain conjectural.

It is also evident that the evidence in Zone A covers a wide range of time and that the pieces from different time periods cannot be separated out on a systematic basis. This is another circumstance that substantially diminishes the historical value of the evidence at hand.

In sum, nothing found and on the basis of prediction, nothing unseen, in the study are is likely to be of appreciable significance.

**Rating : low significance at the local scale, with high confidence**

## Zone B

The survey was moderately effective in Zone B, with some limitations imposed by the vegetation. In our professional judgement, the limitations do not pose a threat to the integrity of this assessment.

Nothing was noted in Zone B. Whilst heritage objects probably do occur in this area, they are likely to be made of stone and will be certainly very sparsely distributed and unlikely to be of significance. The ground was too steep to offer campsites and the raw materials present in the gravels exposed on the high ground seem not to have been utilised.

**Rating : no significance, with high confidence**

## Zone C

The gentler slope of this area was still enough to have discouraged people from using it as a camp-site in the past. The survey was moderately effective and the survey did not locate either artefacts or even debatable pieces. Whilst heritage objects might occur in this area, they are likely to be made of stone and will be certainly very sparsely distributed and unlikely to be of significance.

**Rating : no significance, with high confidence**

## Zone D

Survey was of variable effectiveness in this Zone, with a decided bias to poor. Nothing was found and we predict that this has as much to do with the flood plain and valley slope contexts, as it does the difficulties of survey.

Nonetheless, there could be heritage objects here as the obstructed survey provided poor guidance on the matter. In our judgement they are most likely to be from the MSA or the Later Stone Age (LSA -the period from 30,000 until 350 years ago). If a large, high density occurrence lies in Zone D, our belief is that we would have seen it.

Our consideration must then be the effects of the vegetation, both natural and exotic, on such evidence. If present, it will be buried and, because of acidic root action, only stone is likely to survive (in the form of small flaked tools). Archaeologists can only find such materials after bush clearance and that process poses problems of disturbance of the evidence unless done carefully by hand.

The question of the effects of past disturbance (c.f. the mono-culture indigenous vegetation) must also be born in mind.

In our judgement, the question of heritage in Zone D is beyond practical enquiry.

**Rating : unknown significance, with low confidence.**

**Best guess : low significance, with moderate confidence.**

### Zone E

Similar considerations and conclusions apply to Zone E as applied to Zone D, with the exception that we do not believe that we would have seen a large, high density occurrence had it existed.

**Rating : unknown significance, with low confidence.**

**Best guess : low significance, with low to moderate confidence.**

## 4. Sources of Risk, Impact Identification and Assessment

Development will involve vegetation clearing and substantial earthmoving activities that will have a permanent and negative impact on any archaeological resources intercepted by the actions. In terms of our survey, this issue is only known to be relevant in Zone A.

The issue is highly unlikely to apply to Zones B and C.

The issue could apply to Zones D & E but we think it unlikely.

Table 1a summarizes the potential impacts of the proposed development on archaeological heritage resources without mitigation.

*Table 1: Potential Impacts on of Archaeological Heritage Resources without Measures of Mitigation*

| Zones | Significance | Status | Confidence | Intensity | Extent | Duration | Probability |
|---|---|---|---|---|---|---|---|
| A | Low | Negative | High | High | Local | Permanent | Definite |
| B&C | None | None | High | High | Local | Permanent | Low |
| D&E | None | None | Low | High | Local | Permanent | Low |

## 5. Recommended Mitigation Measures

It is recommended that, with the exceptions detailed in the following paragraph that:

- no further archaeological work is required;
- and, if HWC deems it a legal requirement, that the developer apply to HWC for a permit to destroy the artefact scatter in Zone A and that HWC grant such a permit.

The following further undertakings are recommended:

- In the event that vegetation clearing and earthmoving activities expose archaeological materials, such activities must be halted and HWC notified immediately.
- Unmarked human burials may occur anywhere in the landscape and are often exposed during earthmoving activities. Human remains are protected by law and, if older than 60 years, are dealt with by the State Archaeologist at the South African Heritage Resources Agency (Mrs. Mary Leslie who can be reached at 021 462 4502).

**(Figures on following pages)**

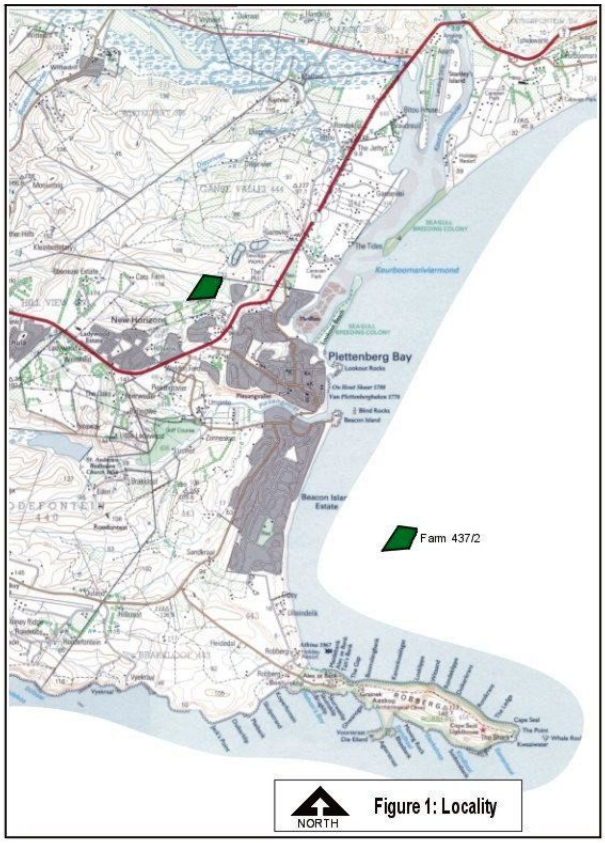


*Figure 1: Location of study area*

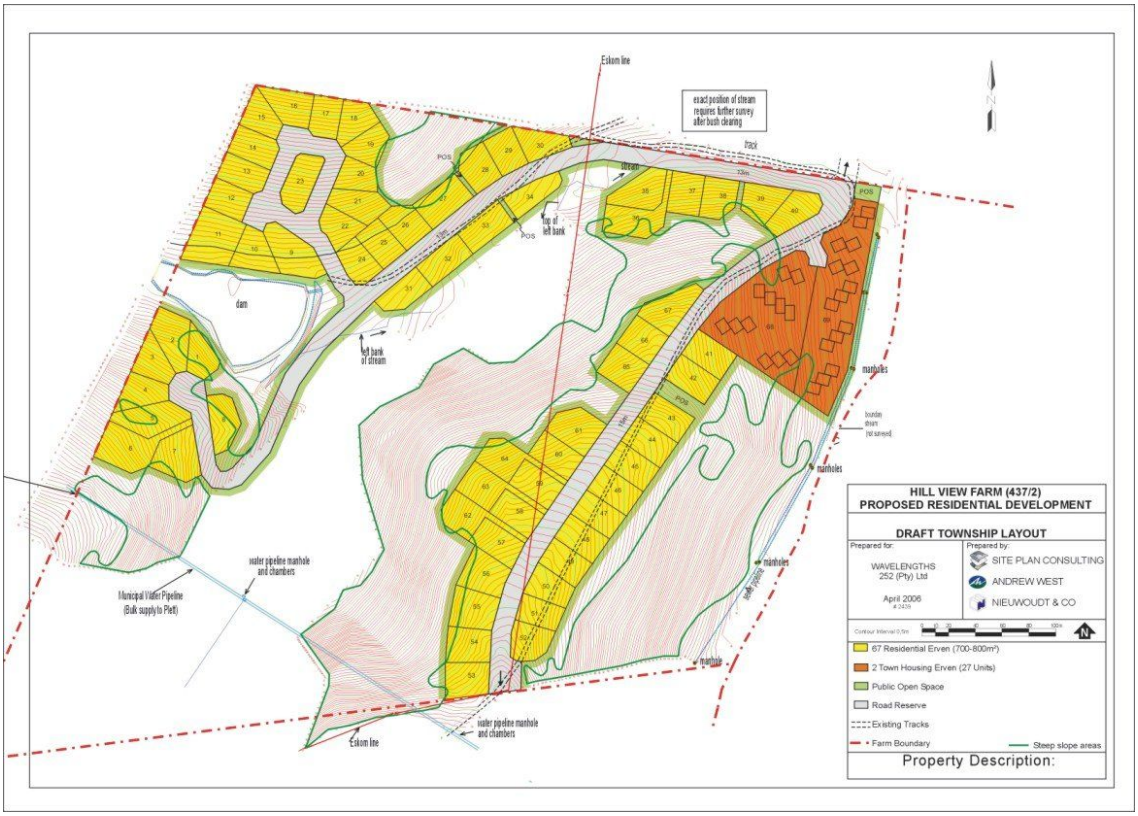


*Figure 2: Draft of proposed layout (note steep slopes outside of footprint*

*Figure 3: Search zones, walkpaths and location of observations*

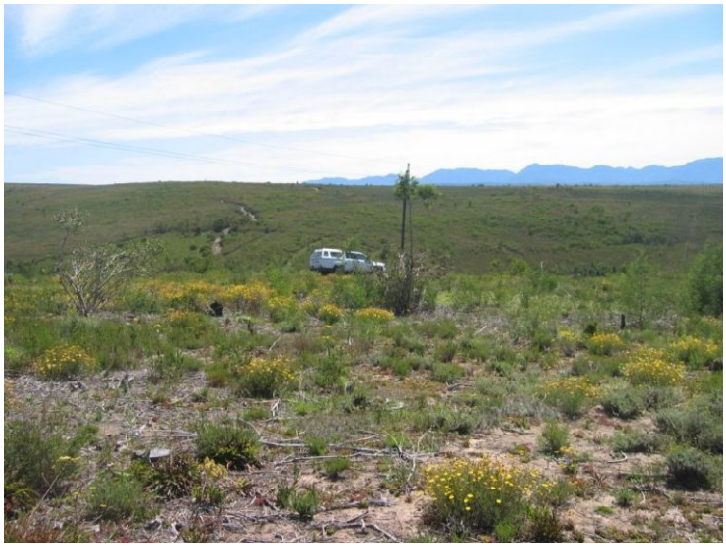

*Figure 4: View across Zone A*

*Figure 5: Quartzite blade from Zone A*

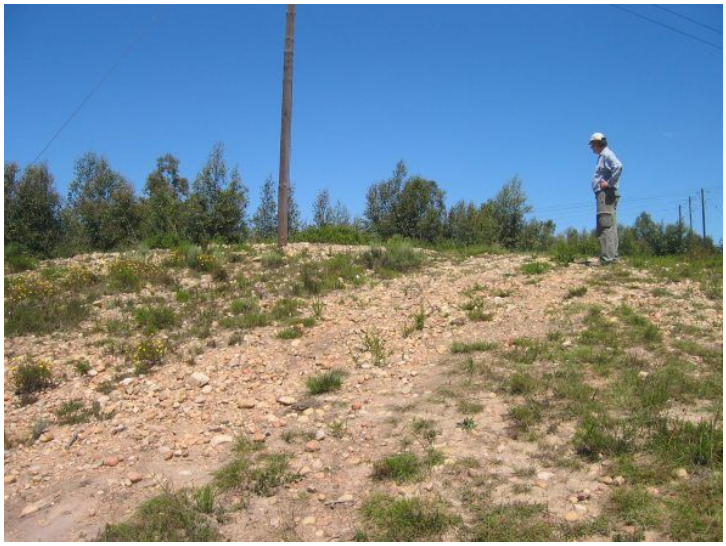

*Figure 6: Cobbles and tool area, Zone A*

*Figure 7: Gravels and stone tools (imm. right of pen and pinkish stone with vertical ridge at the right)*

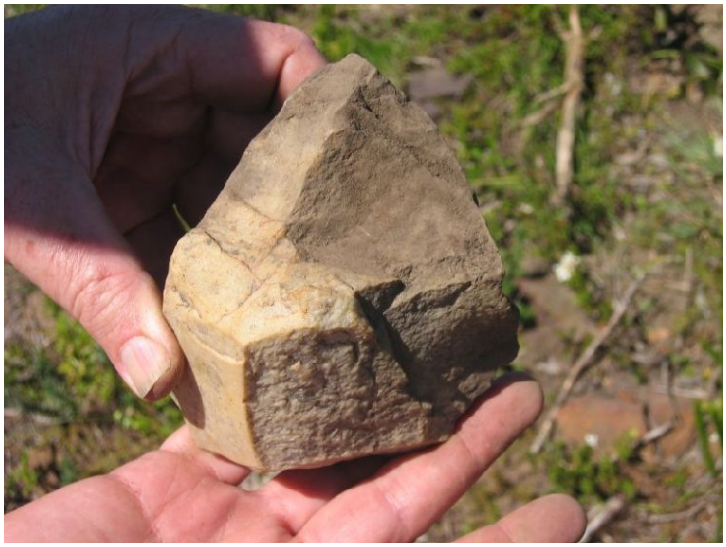

*Figure 8: Quartzite core from Zone A*

*Figure 9: Crude biface from Zone A*

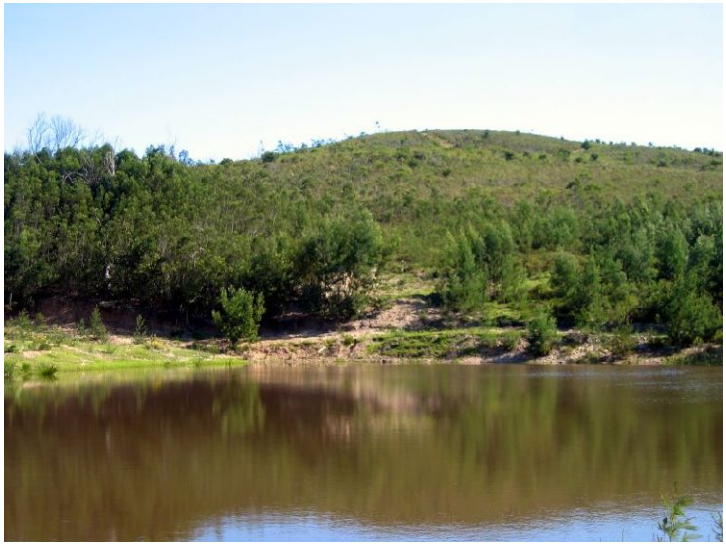

*Figure 10: View south-westwards to Zone B*

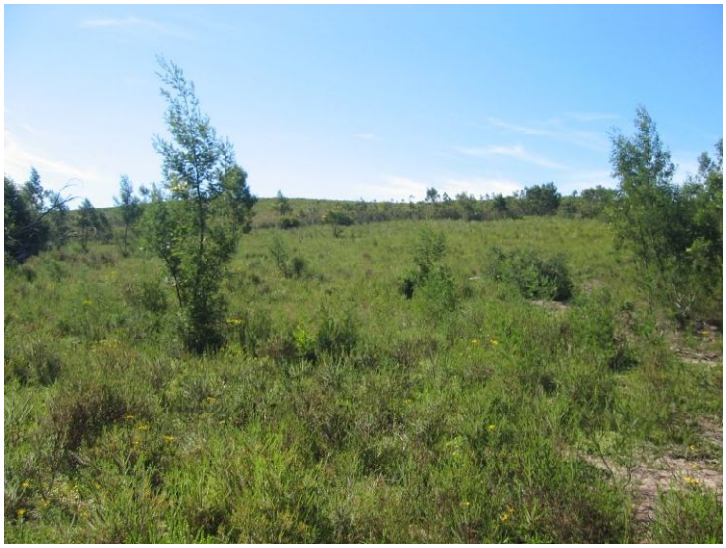

*Figure 11: View north-westwards of Zone C*

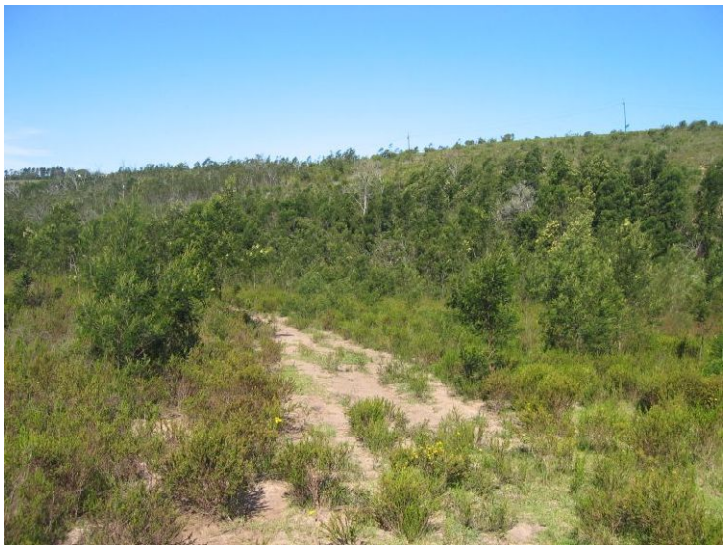

*Figure 12: View east-south-eastwards of Zone D*

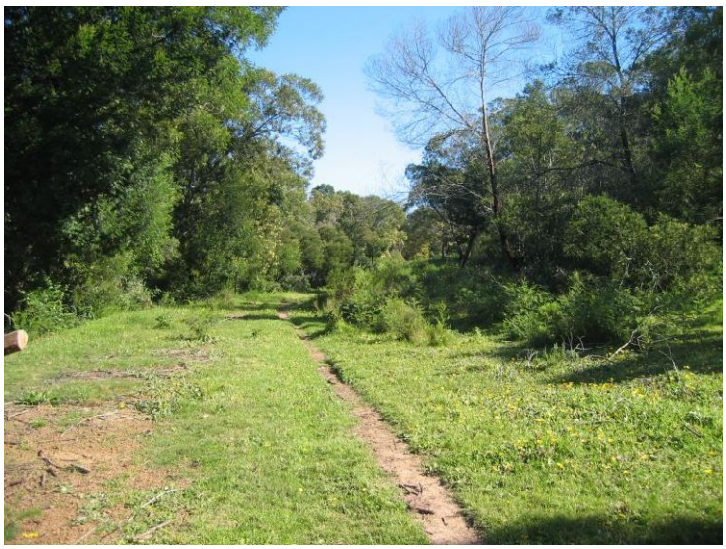

*Figure 13: View southwards of Zone E*