
PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

**THE PROPOSED SUNNY SOUTH HOUSING DEVELOPMENT, BUFFALO CITY
METROPOLITAN MUNICIPALITY, EASTERN CAPE, SOUTH AFRICA**

DATE: 2013-05-20



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SPECIALIST DECLARATION OF INTEREST

I, Karen van Ryneveld (Company – ArchaeoMaps; Qualification – MSc Archaeology), declare that:

- I am suitably qualified and accredited to act as independent specialist in this application;
- I do not have any financial or personal interest in the application, its' proponent or any subsidiaries, aside from fair remuneration for specialist services rendered; and
- That work conducted has been done in an objective manner – and that any circumstances that may have compromised objectivity have been reported on transparently.



SIGNATURE –

DATE – 2013-05-20

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EXECUTIVE SUMMARY

TERMS OF REFERENCE –

EIMS has been appointed by the project proponent, the BCMM, to prepare and submit applications for EA, including an EIA and EMPr to the competent authority, the ECDEDEAT, for the proposed *Sunny South Housing Development*, BCMM, Eastern Cape. The approximate 93ha housing development (including basic infrastructure services) is situated at general development co-ordinate S33°04'19.6"; E27°37'38.5". ArchaeoMaps was appointed by EIMS to conduct the Phase 1 AIA for the proposed development.

THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT –

PROJECT AREA: Approximate 93ha study site, (portion of) Farm 1025, BCMM, Eastern Cape [1:50,000 map ref – 3327BA].

COVERAGE & GAP ANALYSIS: Pre-feasibility and field assessment (approximate 93ha surface area).

FIELD METHODOLOGY: Two day field assessment; GPS co-ordinates – Garmin Oregon 550; Photographic documentation – Pentax K20D. Site significance assessment – SAHRA 2007 system.

SUMMARY:

Map Code	Site	Co-ordinates	Recommendations
<i>Sunny South Housing Development, BCMM, EC – S33°04'19.6"; E27°37'38.5"</i>			
SS-1	Contemporary Structures	S33°04'04.0"; E27°37'20.7"	N/A
SS-2	Contemporary Structure	S33°04'06.6"; E27°37'25.8"	N/A
SS-3	Colonial Period – Residence	S33°04'03.8"; E27°37'30.6"	Conservation
SS-4	Colonial Period – Factory	S33°04'09.7"; E27°37'31.6"	Conservation OR Alteration / Destruction under an EC PHRA Built Environment Permit
SS-5	Contemporary Structures	S33°04'29.5"; E27°37'59.0"	N/A (outside study site)
SS-6	Contemporary Structure	S33°04'30.4"; E27°38'02.3"	N/A
SS-7	Contemporary Structures	S33°04'30.9"; E27°38'07.2"	N/A
SS-G1-1	Single Grave	S33°04'14.7"; E27°38'40.3"	Conservation (outside study site)
SS-G1-2	Cemetery	S33°04'13.8"; E27°38'40.3"	Conservation (outside study site)
SS-G1-3	Single Grave	S33°04'19.4"; E27°38'39.9"	Conservation (outside study site)
SS-G1-4	Single Grave	S33°04'13.5"; E27°38'49.3"	Conservation (outside study site)
SS-G2-1	Cemetery	S33°04'40.7"; E27°38'07.8"	Conservation (outside study site)
SS-G2-2	Two Graves	S33°04'41.4"; E27°38'03.8"	Conservation (outside study site)
SS-G2-3	Single Grave	S33°04'40.2"; E27°38'03.1"	Conservation (outside study site)
SS-G2-4	Two Graves	S33°04'41.1"; E27°37'59.6"	Conservation (outside study site)
SS-G2-5	Two Graves	S33°04'40.6"; E27°37'59.3"	Conservation (outside study site)
SS-G3-1	Single Grave	S33°04'27.0"; E27°37'42.2"	Conservation OR Relocation (with consultation)
SS-G3-2	Two Graves	S33°04'27.8"; E27°37'40.8"	Conservation OR Relocation (with consultation)
SS-G3-3	Single Grave	S33°04'27.1"; E27°37'37.0"	Conservation OR Relocation (with consultation)
SS-G3-4	Cemetery	S33°04'25.2"; E27°37'32.3"	Conservation
SS-G4-1	Single Grave	S33°04'16.9"; E27°37'48.8"	Conservation OR Relocation (with consultation)
SS-G4-2	Single Grave	S33°04'17.0"; E27°37'48.3"	Conservation OR Relocation (with consultation)
SS-G5-1	Two Graves	S33°03'52.7"; E27°38'05.1"	Conservation (outside study site)
SS-G5-2	Single Grave	S33°03'51.4"; E27°38'06.5"	Conservation (outside study site)

RECOMMENDATIONS –

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the proposed *Sunny South Housing Development*, BCMM, Eastern Cape, proceeds as applied for provided the developer comply with the abovementioned summarized recommendations.

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APPENDIX – A –

Introduction to the Archaeology of South Africa

APPENDIX – B –

Extracts from the National Heritage Resources Act (No 25 of 1999)

1) TERMS OF REFERENCE

Environmental Impact Management Services (Pty) Ltd (EIMS) has been appointed by the project proponent, the Buffalo City Metropolitan Municipality (BCMM), to prepare and submit applications for Environmental Authorization (EA), including an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMPr) to the competent authority, the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (ECDEDEAT), for the proposed *Sunny South Housing Development*, BCMM, Eastern Cape. The approximate 93ha housing development (including basic infrastructure services) is situated at general development co-ordinate S33°04'19.6"; E27°37'38.5".

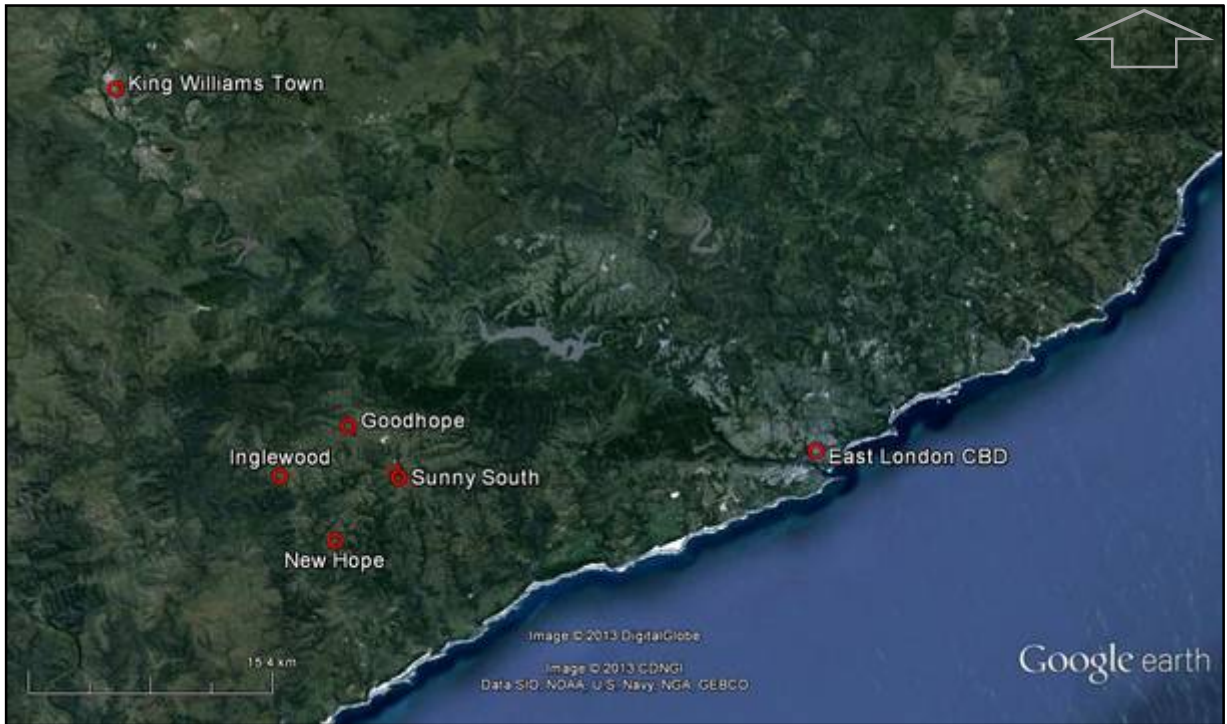
ArchaeoMaps was appointed by EIMS to conduct the Phase 1 Archaeological Impact Assessment (AIA) for the proposed development.

❖ Development Location, Details and Impact

The proposed approximate 93ha *Sunny South Housing Development* is situated on a portion of Farm 1025, approximately 32km south-west of the East London Central Business District (CBD) and 4km south-east of Goodhope along the R347, in the BCMM area of the Eastern Cape [1:50,000 map ref – 3327BA].

The development will take place on BCMM owned land, recently rezoned from agricultural to residential land use due to the BCMM's need to provide formal housing infrastructure to growing communities currently residing in informal dwellings. The project proposes to provide suitable beneficiaries with formal housing units (with basic services infrastructure such as adequate sanitation, water and electricity) according to a planned 540 erven grid system (EIMS 2013).

Initial investigation by EIMS at the study site resulted in the identification of 2 grave sites, reported on to ArchaeoMaps prior to the Phase 1 AIA and officially reported on in the Scoping Report (EIMS 2013).



Map 1: General locality of the *Sunny South Housing Development* in relation to the East London CBD, Goodhope, Inglewood and New Hope, BCMM, Eastern Cape



Map 2: Layout of the proposed *Sunny South Housing Development* in relation to Goodhope

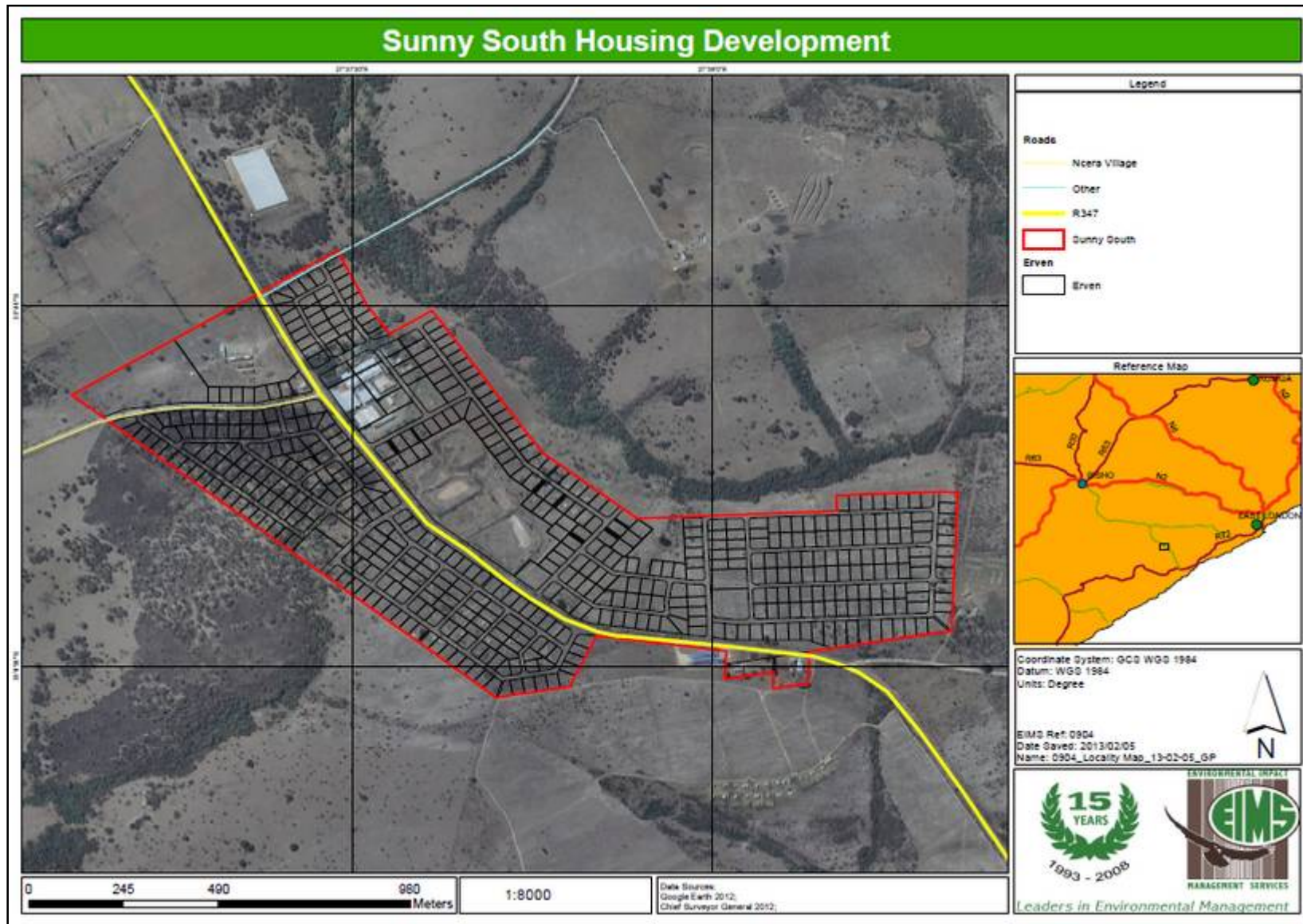


Figure 1: The proposed Sunny South Housing Development, BCMM, EC (courtesy EIMS)



Map 3: General locality of the *Sunny South Housing Development*, 1:50,000 map ref 3327BA

2) THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

❖ Archaeological Legislative Compliance

The Phase 1 Archaeological Impact Assessment (AIA) for the *Sunny South Housing Development*, BCMM, Eastern Cape, was done for purposes of compliance to the Eastern Cape Provincial Heritage Resources Authority's (EC PHRA) requirements in terms of the National Heritage Resources Act, No 25 of 1999 (NHRA 1999), with specific reference to Sections 34-38.

The Phase 1 AIA was requested as specialist sub-section with findings and recommendations thereof to be included in the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMPr) of the development, in compliance with requirements of the National Environmental Management Act, No 107 of 1998 (NEMA 1998) and associated Regulations (2010) and the NHRA 1999.

The Phase 1 AIA aimed to locate, identify and assess the significance of cultural heritage resources, inclusive of archaeological deposits / sites, built structures older than 60 years, burial grounds and graves, graves of victims of conflict and basic cultural landscapes or views as defined and protected by the NHRA 1999, that may be affected by the proposed development.

This report comprises of a Phase 1 AIA, including a basic pre-feasibility study and field assessment only.

❖ Methodology and Gap Analysis

The Phase 1 AIA includes a basic pre-feasibility study and field assessment:

- The pre-feasibility assessment is based on the Appendix 1 introductory archaeological literature. In addition the SAHRA 2009 Mapping Project Database and the SAHRA Built Environment Database on Declared Provincial Heritage Sites (buildings older than 60 years) of the Eastern Cape were consulted. The study excludes consultation of the Albany Museum, the SAHRA accredited Data Recording Centre (DRC) for the Eastern Cape region's database. The Sunny South study site is situated more than 10km from the coastline – a listing of shipwrecks is irrelevant.
- The field assessment was done on 2013-05-15 and 2013-05-18 by 1 archaeologist, with assessment during the 2nd fieldwork day assisted by Elvis Skulpad, member of the Sunny South Steering Committee. The assessment was done by foot and off-road vehicle and limited to a Phase 1 surface survey. GPS coordinates were taken with a Garmin Oregon 550 (Datum: WGS84). Photographic documentation was done with a Pentax K20D camera. A combination of Garmap and Google Earth software was used in the display of spatial information.

Archaeological and cultural heritage site significance assessment and associated mitigation recommendations were done according to the system prescribed by SAHRA (2007).

SAHRA ARCHAEOLOGICAL AND CULTURAL HERITAGE SITE SIGNIFICANCE ASSESSMENT			
Site Significance	Field Rating	Grade	Recommended Mitigation
High Significance	National Significance	Grade I	Site conservation / Site development
High Significance	Provincial Significance	Grade II	Site conservation / Site development
High Significance	Local Significance	Grade III-A / III-B	Site conservation or extensive mitigation prior to development / destruction
High / Medium Significance	Generally Protected A	Grade IV-A	Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B	Grade IV-B	Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C	Grade IV-C	On-site sampling, monitoring or no archaeological mitigation required prior to or during development / destruction

Table 1: SAHRA archaeological and cultural heritage site significance assessment

❖ Assessor Accreditation

The assessment was done by Karen van Ryneveld (ArchaeoMaps):

- Qualification: MSc Archaeology (2003) WITS University.
- Accreditation:
 1. 2004 – Association of Southern African Professional Archaeologists (ASAPA) – Professional Member.
 2. 2005 – ASAPA CRM Section: Accreditation – Field Director (Stone Age, Iron Age, Colonial Period).
 3. 2010 – ASAPA CRM Section: Accreditation – Principle Investigator (Stone Age).

Karen van Ryneveld is a SAHRA / EC PHRA listed CRM archaeologist.

2.1) PRE-FEASIBILITY ASSESSMENT

Based on the basic introductory literature assessment of South African archaeology (see Appendix – A) the probability of archaeological and cultural heritage sites within the proposed *Sunny South Housing Development* study site, BCMM, Eastern Cape, can briefly be described as:

1. Early Hominin : Probability – *None*

2. Stone Age
 - a. ESA : Probability – *Low-Medium*
 - b. MSA : Probability – *Medium*
 - c. LSA : Probability – *Medium-High* (Human remains may be expected; if identified of both scientific and social significance)
 - i. Rock Art : Probability – *None-Low*
 - ii. Shell Middens : Probability – *None-Low*

3. Iron Age
 - a. Early Iron Age : Probability – *None*
 - b. Middle Iron Age : Probability – *None-Low*
 - c. Later Iron Age : Probability – *Low-Medium*

4. Colonial Period
 - a. Colonial Period : Probability – *Low-Medium* (Human remains expected to be primarily associated with formal cemeteries)
 - b. Iron Age / Colonial Period Contact : Probability – *Low-Medium*
 - c. Industrial Revolution : Probability – *None*

❖ The SAHRA 2009 Database

A number of archaeological Cultural Resources Management (CRM) projects are recorded in the SAHRA 2009 Mapping Project Database situated within an approximate 20km radius from the *Sunny South Housing Development* study site, BCMM, Eastern Cape, referenced as:

- Binneman, J. & Webley, L.E. (Albany Museum). 1996. *Proposed Eastern Cape Zinc and Phosphoric Acid Project: Baseline Report: Sensitivity and Cultural Sites*;
- Coetzee, F.P. (UNISA). 2008. *Cultural Heritage Survey for the Nungu Trading 672 (Pty) Ltd Prospecting Application, East London, Eastern Cape*;
- Van Ryneveld, K. (ArchaeoMaps). 2007. *Phase 1 Archaeological Impact Assessment. Mnt. Coke Eco-Residential and Golf Estate, East London, Eastern Cape, South Africa*;
- Van Ryneveld, K. (ArchaeoMaps). 2008a. *Phase 1 Archaeological Impact Assessment. Kidd's Beach Golfing Estate, Portions of Farms 1075, 1076, 1077, 1078, 1079 and 1086, Kidd's Beach, East London, Eastern Cape, South Africa*;

- Van Ryneveld, K. (ArchaeoMaps). 2008b. *Phase 1 Archaeological Impact Assessment. Rezoning and Mixed-Use Development, Portion 4 of Farm 1050, Kidd's Beach, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008c. *Phase 1 Archaeological Impact Assessment. Warehouse and Related Infrastructure. Portion 19 of Farm 925, Cove Rock, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008d. *Phase 1 Archaeological Impact Assessment. Development of a Shopping Mall and Commercial Offices, Portions 21, 22 and 23 of Farm 925, Cove Rock, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008e. *Phase 1 Archaeological Impact Assessment. Warehousing and Light Industrial Development, Farm 922, Cove Rock, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008f. *Phase 1 Archaeological Impact Assessment. Re-zoning and Subdivision for Mixed-use Development, Farm 939, Cove Rock, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008g. *Phase 1 Archaeological Impact Assessment. Residential Development, Farm 960, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008h. *Phase 1 Archaeological Impact Assessment. Residential Development, Portions 1 and 4 of Farm 1245, Cove Rock, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008i. *Phase 1 Archaeological Impact Assessment. Industrial Development, Erven 17532 and 49336, Orange Grove, East London, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008j. *Phase 1 Archaeological Impact Assessment. Hotel and Conference Centre Development, Portion 2 of Farm 992, Cove Rock, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008k. *Letter of Recommendation. Exemption from a Phase 1 Archaeological Impact Assessment for the Beachfront Adjoining the Cove Rock Golf Estate and the Hotel and Conference Centre Development, Cove Rock, Eastern Cape, South Africa;*
- Van Ryneveld, K. (ArchaeoMaps). 2008l. *Phase 1 Archaeological Impact Assessment. Proposed Pipeline. Portion of Farm 1008, Winterstrand, East London, Eastern Cape, South Africa.*

More archaeological CRM studies can reasonably be inferred to have been done in the greater East London area post compilation of the SAHRA 2009 Mapping Project Database, but study sites do not seem to fall within the rough 20km radius from the *Sunny South Housing Development* zone. Post 2009 CRM studies falling within the 20km radius from the study site done by ArchaeoMaps include:

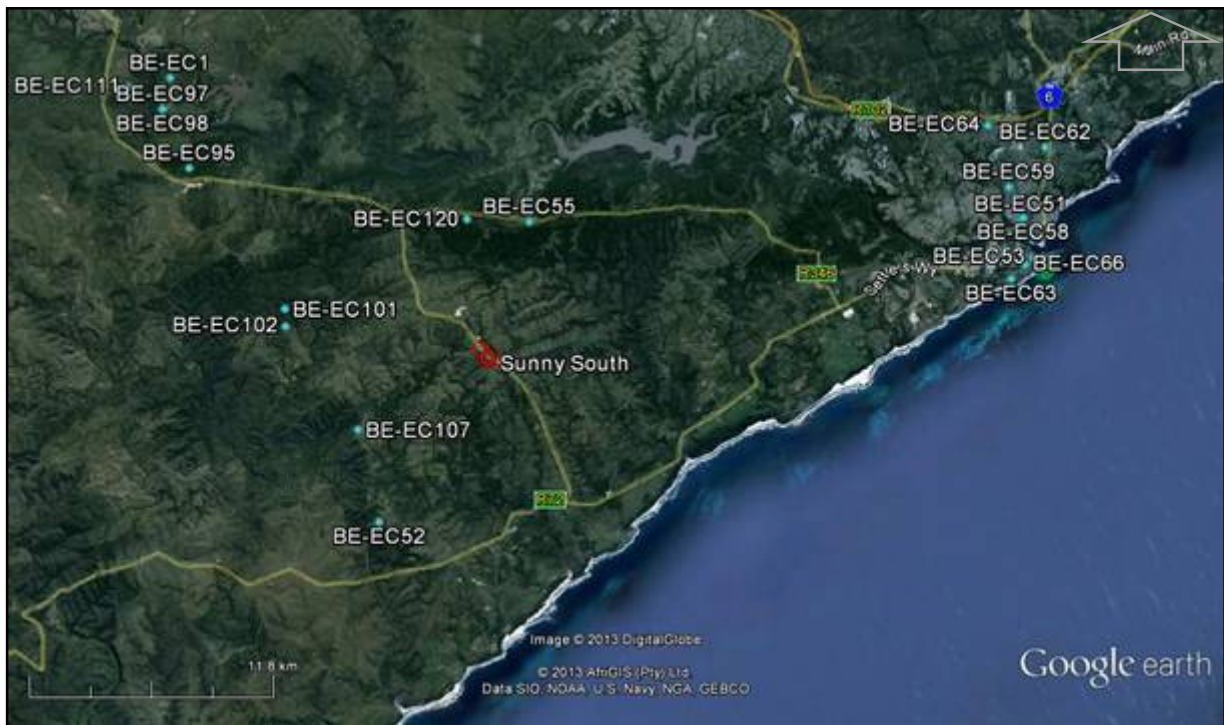
- Van Ryneveld, K. (ArchaeoMaps). 2012. *Phase 1 Archaeological Impact Assessment. Cove Rock Country Estate Extension, Farm 980, Farm 961/1 and Farm RE 1234, Cove Rock, East London, Eastern Cape, South Africa.*

❖ SAHRA Built Environment Database – Eastern Cape

Declared Provincial Heritage Sites (buildings older than 60 years) situated south of the Buffalo River, East London, and within a rough 30km radius from the *Sunny South Housing Development* study site can briefly be listed as:

- BE-EC52: Old Methodist Church, Ncera (SAHRA identifier – 9/2/026/0006);
- BE-EC107: Old Railway Station, Alexandria Road, KWT (SAHRA identifier – 9/2/050/0017);
- BE-EC102: Deeds Office, Alexandria Road, KWT (SAHRA identifier – 9/2/050/0013);
- BE-EW101: Magistrate's Court, Alexandria Road, KWT (SAHRA identifier – 9/2/050/0012);
- BE-EC120: Upper Needs Camp, KWT (SAHRA identifier – 9/2/050/0041);
- BE-EC55: Lower Needs Camp, KWT (SAHRA identifier – 9/2/026/0011);
- BE-EC1: Fort Murray, Zwelitsa District (SAHRA identifier – 4/K/King/1);

- BE-EC111: Old Blacksmith's Shop, Oak Street, KWT (SAHRA identifier – 9/2/050/0022);
- BE-EC97: Old Powder Magazine – Military Reserve, KWT (SAHRA identifier – 9/2/050/0010/002);
- BE-EC98: Old Commissariat Store, Military Reserve, KWT (SAHRA identifier – 9/2/050/0010/003);
- BE-EC95: Holy Trinity Church, Prince Alfred Square, KWT (SAHRA identifier – 9/2/050/0008);
- BE-EC53: West Bank Post Office, Bank Street, EL (SAHRA identifier – 9/2/026/0009);
- BE-EC54: Old Powder Magazine, Fort Glamorgan, EL (SAHRA identifier – 9/2/026/0010);
- BE-EC66: West Bank High School, Hood Street, EL (SAHRA identifier – 9/2/026/0035); and
- BE-EC63: Hood Point Lighthouse, EL (SAHRA identifier – 9/2/026/0031).



Map 4: SAHRA Built Environment declared Provincial Heritage Sites in proximity to the *Sunny South Housing Development* study site

❖ General Discussion

Though Binneman & Webley (1996) emphasizes the sensitivity of specifically Stone Age resources along the coastline, by far the majority of Stone Age sites identified through CRM assessments to date, are situated north of the Buffalo River, with this distribution pattern a direct factor of the number of CRM assessments done north of the Buffalo River versus those conducted south thereof. Identified Stone Age sites north of the Buffalo River include Middle Stone Age (MSA) and Later Stone Age (LSA), including LSA shell midden sites and scatters. South of the Buffalo River a small shell midden was identified within the Kidd's Beach Golf Estate study site (Van Ryneveld 2008a) and LSA sites found further south along the coastline in the vicinity of Kayser's Beach were reported on by van Ryneveld (2008j).

Identified Iron Age sites elude CRM study sites to date. However, proximity of the *Sunny South Housing Development* to a portion of the former Ciskei homeland immediately points to potential Iron Age sensitivity. The Intangible Iron Age heritage site, Cove Rock, has been mentioned in a number of CRM reports (Coetzee 2008; Van Ryneveld 2008j, 2012), highlighting general Iron Age presence and the rich Iron Age histories of the area, directly related to the foretelling of the young Xhosa prophetess Nongqawuse in the time of Paramount Chief Sarhili of the Gcaleka and the resultant Cattle Killing (1856-1857) (<http://en.wikipedia.org/wiki/Nongqawuse>) that left not only the Gcaleka but the Xhosa at large a poor people; from a wealthy farming nation to a struggling migrant workers' class in less than 2 years, forever tainting the dynamics of the history of the Eastern Cape.

A number of Colonial Period resources, mostly buildings or structures older than 60 years have been reported on in CRM reports (Van Ryneveld 2008a, 2008b, 2008i, 2008j, 2012), but the rich Colonial Period history of the greater region is confirmed by the distribution of SAHRA declared Provincial Heritage Sites, with these clustered in the King Williams Town and East London areas. The Old Methodist Church, Ncera (BE-EC52), the Old Railway Station (BE-EC107), the Deed's Office (BE-EC102), the Magistrate's Court (BE-EC101) and the Upper Needs Camp (BE-EC120) are all situated in fair proximity to the study site.

Graves and cemeteries were reported on in consulted CRM reports, including both Xhosa farm workers' graves and Colonial Period cemeteries / graves (Van Ryneveld 2008a, 2012).

[No CSG record could be located for Farm 1025.]

2.2) FIELD ASSESSMENT

The *Sunny South Housing Development* study site was characterized by thick vegetation, with a notable increase in tree cover towards the south-west, but thick grass cover remained the main concern – obscuring surface visibility virtually in totality. The Phase 1 AIA was done on 2013-05-15, but it soon became clear that less visible heritage resource types, including also already reported on graves, would not be easily identifiable and the decision was taken to attempt the identification of grave sites by means of ‘graves-survey’ through community consultation (2013-05-18) rather than through traditional archaeological survey methods.

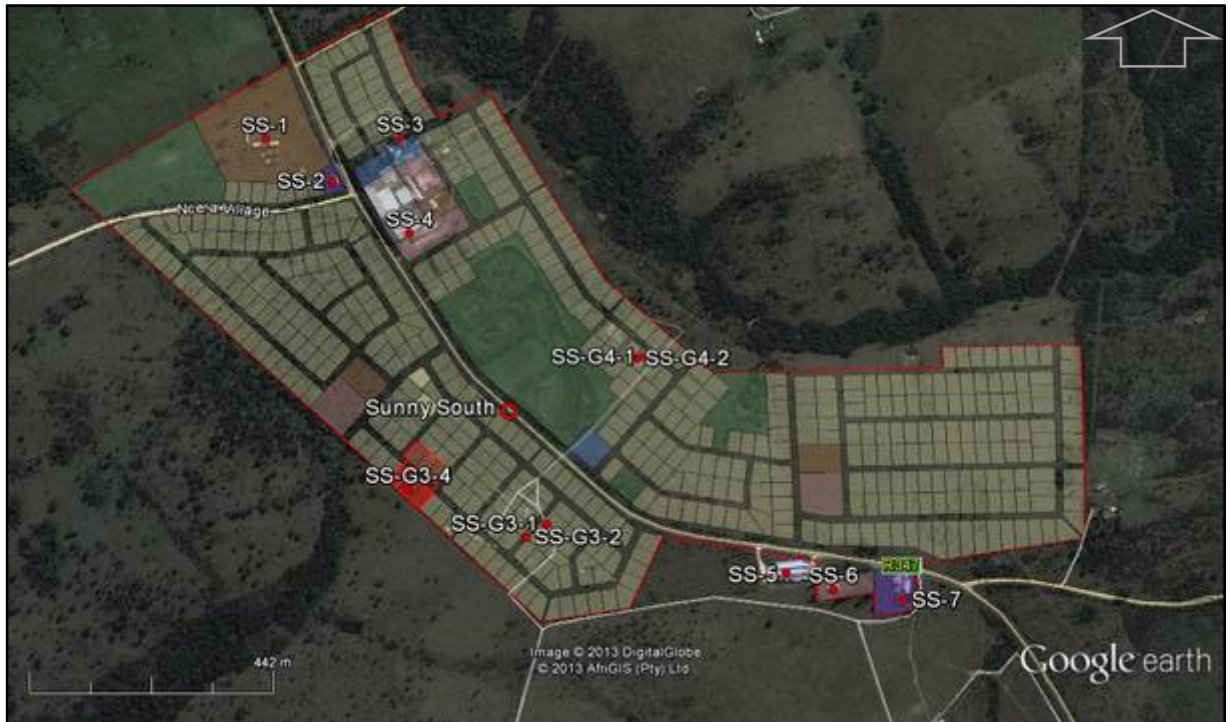
Three main cultural resource types were identified:

- Contemporary structures (SS-1, SS-2, SS-5, SS-6 and SS-7);
- Colonial Period structures (SS-3 and SS-4); and
- Graves and Cemeteries (Area G1: SS-G1-1 to SS-G1-4; Area G2: SS-G2-1 to SS-G2-5; Area G3: SS-G3-1 to SS-G3-4; Area G4: SS-G4-1 to SS-G4-2 and Area G5: SS-G5-1 to SS-G5-2).

An open construction trench along Ncera Road provided for the only exposed sub-surface section, yielding an anthropogenic sterile section to approximately 1m in depth.



Map 5: Results of the field assessment



Map 6: Close-up of the field assessment results – *Sunny South Housing Development* study site footprint



Map 7: Close-up of the G3 and G4 areas indicating also the minimum size for the SS-G3-4 cemetery area (dark red) and the proposed area for establishment of a small cemetery (light red)



Plate 1: View of the area north of Ncera Road and south-west of the R347



Plate 3: Anthropogenic sterile sections along Ncera Road



Plate 2: General view of the tree rich area south-west of the R347



Plate 4: View of the ponds / green area – north-east of the R347



Plate 5: Informal housing towards the north-east of the R347 with the Ncera Macadamia Farming facility in the background



Plate 7: Informal residences towards the south-west of the R347 [2]



Plate 6: Informal residences towards the south-west of the R347 [1]



Plate 8: View of the eastern part of the study site, north-east of the R347

2.2.1) CONTEMPORARY STRUCTURES

The NHRA 1999 protects all structures older than 60 years, structures younger than 60 years are not protected by the Act. A number of contemporary structures, or structures post-dating 60 years of age, are situated within or immediately adjacent to the *Sunny South Housing Development* study site. These were recorded to guide the planning and heritage compliance process only.

- ❖ SS-1: Contemporary Structures – $S33^{\circ}04'04.0''$; $E27^{\circ}37'20.7''$

The 4 structures currently used as a school building post-dates 60 years of age – the structures are not formally protected by the NHRA 1999, alteration or demolition of the structures for development purposes is not subject to application to or approval by the EC PHRA.

- ❖ SS-2: Contemporary Structure – $S33^{\circ}04'06.6''$; $E27^{\circ}37'25.8''$

Date of construction of the vernacular SS-2 structure remains uncertain. At present it is inferred that construction post-dates 60 years of age. Alteration or demolition of the structure *in lieu* of development is not subject to EC PHRA application or approval.

- ❖ SS-5: Contemporary Structures – $S33^{\circ}04'29.5''$; $E27^{\circ}37'59.0''$

The SS-5 contemporary structures comprising the Kidd's Beach Fresh Produce Store is situated immediately outside the proposed study site footprint and will not be impacted on by development.

- ❖ SS-6: Contemporary Structure – $S33^{\circ}04'30.4''$; $E27^{\circ}38'02.3''$

Again date of construction of the vernacular SS-6 structure remains uncertain, but is inferred to post-date 60 years of age implying that the structure is not formally protected by the NHRA 1999. Alteration or demolition of the structure for development purposes is not subject to EC PHRA application or approval.

- ❖ SS-7: Contemporary Structures – $S33^{\circ}04'30.9''$; $E27^{\circ}38'07.2''$

Contemporary structures comprising the Rocklands Cash Store are younger than 60 years of age. The structures are not formally protected by the NHRA 1999; alteration or demolition thereof for purposes of development is not subject to EC PHRA application or approval.



Plate 9: View of the SS1 contemporary school and related buildings



Plate 11: View of the SS6 vernacular structure



Plate 10: View of the SS2 vernacular structure



Plate 12: View of the SS7 contemporary structures

2.2.2) COLONIAL PERIOD STRUCTURES

The Ncera Macadamia Farming facility is situated towards the north of the *Sunny South Housing Development* study site, north-east of the R347. A number of buildings are situated on the property, with the locality most probably demarcating the original early farmstead of Farm 1025. Formal Colonial Period structures include Sites SS-3 and SS-4, while associated limited old walls and infrastructure remains crisscross the gardens of the property, but Colonial Period structures are intersected with a number of more recent buildings on the property, some themselves no longer in use.

❖ SS-3: Colonial Period Residence – S33°04'03.8"; E27°37'30.6"

Site SS-3, a Colonial Period residence, is situated on the Ncera Macadamia Farming facility property. The residence, a vernacular structure, pre-dates 60 years of age and is formally protected by the NHRA 1999. Date of construction is unknown, but the residence may well have been the early farm house of Farm 1025 and can, based on architectural style, be dated to at least the late 1800's / early 1900's. The Ncera Macadamia Farming facility will continue to operate; development will not impact on relevant structures of the business and the Site SS-3 building will be conserved. At the time of the field assessment time period renovations were underway.

RECOMMENDATIONS: Site SS-3, a Colonial Period residence pre-dating 60 years of age receives automatic SAHRA protection as a site of *High Significance* with a *Provincial Grade II Field Rating*. The site will not be impacted on by development. The developer, and in this case also the owner of the Ncera Macadamia Farming facility is reminded that all structures older than 60 years are formally protected by the NHRA 1999, any alterations to the structure should be done under an EC PHRA Built Environment permit (time period renovations and maintenance does not require a permit).

❖ SS-4: Colonial Period Factory – S33°04'09.7"; E27°37'31.6"

Site SS-4 is situated along the southern perimeter of the Ncera Macadamia Farming facility. The site, comprising of an old factory building (vernacular structure) is inferred to be older than 60 years and relevant legal NHRA 1999 protections apply. The structure is at present formally fenced, thus complying with basic EC PHRA Minimum Site Conservation Standards, but the structure may be impacted on by development. The building itself may well be structurally not suitable for re-use and further investigation for amendment to the structure to ensure re-use and incorporation into the development is still pending. Within the general principle of Integrated Environmental Management (IEM) the heritage status of Site SS-4 should be considered against retaining the dilapidated building within a development framework with reference to social, specifically safety and crime concerns. With reference thereto it is recommended that alteration / demolition of the structure be further considered if deemed relevant within the development proposal.

RECOMMENDATIONS: Site SS-4, a Colonial Period factory site, pre-dates 60 years of age and is formally protected under the NHRA 1999 as a site of *High Significance* with a *Provincial Grade II Field Rating*. The heritage status of the dilapidated building, most probably not suitable for re-use or integration into the development should be

considered against possible social concerns. The developer is reminded that alteration or destruction of structures older than 60 years should be done in accordance with an EC PHRA Built Environment permit.



Plate 13: General view of the SS-3 Colonial Period residence



Plate 15: View of the SS-4 Colonial Period factory [1]



Plate 14: Contemporary structures at Ncera Macadamia Farming



Plate 16: View of the Colonial Period factory [2]

2.2.3) GRAVES AND CEMETERIES

For purposes of this report recorded graves and cemeteries are reported on in terms of 5 areas, namely Area G1-G5.

Area G1, Area G2 and Area G5 fall outside the development footprint. However, residents here form part of the Sunny South community – recorded grave and cemetery sites are thus indirectly applicable; residents that will relocate will be removed from their ancestral grave sites.

Area G3 and Area G4 will be directly impacted on by the development:

- Four grave sites were recorded in Area G3 of which SS-G3-4 is of particular significance. Here it is believed that aside from the recorded graves a number of ‘old’ graves of which the grave demarcations have decayed are present and particular caution should be taken to ensure that a reasonable sized area be set aside to ensure conservation, to the best of the ability of the developer. A smaller area, comprising 3 stands should suffice to ensure conservation of identified and reported on graves. A larger area, comprising 6 stands can be considered for the establishment of a small cemetery, and should suffice to also accommodate relocation of graves (including SS-G3-1, SS-G3-2, SS-G3-3, SS-G4-1 and SS-G4-2), should this recommendation be considered by the developer and approved by the community.
- Two grave sites were recorded within Area G4. Should these graves be conserved in situ a single stand will be compromised within the current development layout. Alternatively the developer can consider relocation of the graves, preferably to an on-site cemetery such as proposed for the SS-G3-4 area.

Brief community consultation indicated that graves and cemeteries that need not be impacted on should preferably be left in situ, based also on fairly close proximity of these locales to the study site. With respect to grave sites situated within the footprint of the study site both conservation and relocation options should be consulted with the community before implementation. In addition it came to the fore that the community would appreciate a cemetery in the area. It was reported on that a formal cemetery is established at the Ncera Mission Church, but this is as a norm not used based on distance away from the community. Traditional burial practice is still largely followed by the community, albeit not as a rule, including that men are buried within livestock enclosures or in close proximity thereto, being the traditional ‘male’ area. Women and older children are buried, customarily, in cemeteries, but can also be buried around the homestead yard. Important in this record is the exclusion of graves – smaller children are still buried within the homes, underneath the floors, again highlighting the need for community consultation with regards to conservation or relocation of grave sites and importantly also measures of destruction of current residences (and livestock enclosures).

While the NHRA 1999 provide for the protection of all grave sites older than 60 years, with conservation or relocation related to these graves prescribed by a SAHRA process, brief community consultation indicated that this is a particularly difficult category. Graves were in general described as ‘young’ or ‘recent’, implying children, brothers, sisters and parents, while ‘old’ graves refer to generations past, but without a set temporal period associated therewith. With specific reference to graves reported on in this report, unless stated as ‘old’, it is recommended that grave concerns be handled as though graves are younger than 60 years. Graves and cemeteries reported on in this report directly relate to the Sunny South community and consultation relating thereto should preferably be kept private, limited to the community and / or relevant families.

2.2.3.1) AREA G1

- ❖ SS-G1-1: Single Grave – S33°04'14.7"; E27°38'40.3"

Grave site SS-G1-1 comprises of a single stone outlined grave without headstone demarcation. The site will not be impacted on by development.

RECOMMENDATIONS: Grave site SS-G1-1 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be conserved.

- ❖ SS-G1-2: Cemetery – S33°04'13.8"; E27°38'40.3"

The SS-G1-2 cemetery comprises of approximately 11 graves, some stone outlined, some branch covered, some mound covered and some merely discernible by a change in vegetation. A single grave at the site hosts a headstone demarcation. Graves are reported on as some being 'old', but the majority thereof being 'recent'. The cemetery will be conserved.

RECOMMENDATIONS: The SS-G1-2 cemetery is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be conserved within the proposed development layout.

- ❖ SS-G1-3: Single Grave – S33°04'19.4"; E27°38'39.9"

Grave site SS-G1-3 is situated within a branch livestock enclosure. The grave is demarcated with a head stone. The site will not be impacted on by development.

RECOMMENDATIONS: Grave site SS-G1-3 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be conserved.

- ❖ SS-G1-4: Single Grave – S33°04'13.5"; E27°38'49.3"

Grave site SS-G1-4 is situated within a branch livestock enclosure, without any additional demarcations. The site will not be impacted on by development.

RECOMMENDATIONS: Grave site SS-G1-4 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be conserved.

2.2.3.2) AREA G2

❖ SS-G2-1: Cemetery – S33°04'40.7"; E27°38'07.8"

The SS-G2-1 cemetery comprises of approximately 9 graves. Some graves are marked with headstones, with stone and mound demarcations, while others are merely marked with stone and mound demarcations, others are identifiable only by mound remains, some of which have settled and are difficult to discern. The cemetery will not be impacted on by development.

RECOMMENDATIONS: The SS-G2-1 cemetery is assigned a SAHRA *High Significance* with a *Generally Protected IV-A Field Rating*. The cemetery will be conserved.

❖ SS-G2-2: Two Graves – S33°04'41.4"; E27°38'03.8"

SS-G2-2 demarcates the general locality of 2 graves, one being a male grave situated immediately adjacent to the fence of a livestock enclosure and the other a female grave situated approximately 7m away, demarcated by an overgrown earth mound. Neither of the graves are demarcated by headstones.

RECOMMENDATIONS: The SS-G2-2 graves are assigned SAHRA *High Significance*, *Generally Protected IV-A Field Ratings*. The graves will not be impacted on by development.

❖ SS-G2-3: Single Grave – S33°04'40.2"; E27°38'03.1"

The SS-G2-3 grave is identifiable only by a grass covered earth mound without a headstone indicating the locality. The grave falls outside the development footprint and will not be impacted on by development.

RECOMMENDATIONS: Grave SS-G2-3 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The grave site will be conserved.

❖ SS-G2-4: Two Graves – S33°04'41.1"; E27°37'59.6"

The SS-G2-4 locality demarcates the position of 2 graves, situated approximately 8m apart. The first being a fairly well stone and branch demarcated grave site with the second grave being barely discernible in thick vegetation, probably originally being part of a livestock encampment fence area. Neither of the graves contains headstones.

RECOMMENDATIONS: The SS-G2-4 graves are assigned SAHRA *High Significance*, *Generally Protected IV-A Field Ratings*. The graves will not be impacted on by development.

❖ SS-G2-5: Two Graves – $S33^{\circ}04'40.6''$; $E27^{\circ}37'59.3''$

The SS-G2-5 graves are both situated within a livestock enclosure, with thick vegetation obscuring the actual grave localities. The graves will not be impacted on by development.

RECOMMENDATIONS: The SS-G2-5 graves are assigned SAHRA *High Significance, Generally Protected IV-A Field Ratings*. Both graves, situated outside the study site, will be conserved.

2.2.3.3) AREA G3

❖ SS-G3-1: Single Grave – $S33^{\circ}04'27.0''$; $E27^{\circ}37'42.2''$

The locality of grave site SS-G3-1 is demarcated by a bush with purple flowers, situated within a fenced livestock / agricultural enclosure. The grave site is located within the study site footprint. Either conservation or exhumation and re-internment for purposes of development can be considered by the developer to meet heritage management compliance requirements.

RECOMMENDATIONS: Grave site SS-G3-1 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be impacted on by the proposed development layout and the developer may consider either in situ conservation or relocation:

1. In situ conservation: The developer should ensure that the grave site be conserved within the final development layout. Minimum requirements should include a formal fence with access gate to the grave with a minimum of a 2m conservation buffer around the fenced grave. Conservation measures should be consulted with the community before implementation. OR
2. Exhumation and re-internment of the remains in a formal cemetery. Should a cemetery site be established within the Sunny South development layout, this would be the preferable re-internment locality. Exhumation and re-internment should be consulted with the community before implementation.

❖ SS-G3-2: Two Graves – $S33^{\circ}04'27.8''$; $E27^{\circ}37'40.8''$

The SS-G3-2 locality demarcates the position of 2 graves, both visible by means of metal headstones. The graves will be impacted on by the layout of the *Sunny South Housing Development* and relevant heritage management measures, including either in situ conservation or relocation will need to be considered before development commences.

RECOMMENDATIONS: The SS-G3-2 graves are both assigned SAHRA *High Significances* and *Generally Protected IV-A Field Ratings*. The graves will be impacted on by the proposed development; the developer may consider either in situ conservation or relocation as heritage management option:

1. In situ conservation: The developer should ensure that the graves be conserved within the final development layout. Minimum requirements should include a formal fence with access gate around both graves, with a minimum of a 2m conservation buffer around the fenced grave site. Conservation measures should be consulted with the community before implementation. OR

2. Exhumation and re-internment of the remains in a formal cemetery. Should a cemetery site be established within the Sunny South development layout, this would be the preferable re-internment locality. Exhumation and re-internment should be consulted with the community before implementation.

❖ SS-G3-3: Single Grave – S33°04'27.1"; E27°37'37.0"

Grave site SS-G3-3 comprises of an individually fenced grave situated within a fenced livestock enclosure. The grave site locality will be impacted on by the current Sunny South development layout.

RECOMMENDATIONS: Grave site SS-G3-3 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be impacted on by the proposed development layout and the developer may consider either in situ conservation or relocation:

1. In situ conservation: The developer should ensure that the grave site be conserved within the final development layout. Minimum requirements should include a formal fence with access gate to the grave with a minimum of a 2m conservation buffer around the fenced grave. Conservation measures should be consulted with the community before implementation. OR
2. Exhumation and re-internment of the remains in a formal cemetery. Should a cemetery site be established within the Sunny South development layout, this would be the preferable re-internment locality. Exhumation and re-internment should be consulted with the community before implementation.

❖ SS-G3-4: Cemetery – S33°04'25.2"; E27°37'32.3"

The SS-G3-4 cemetery is characterized by 3 easily identifiable graves, all being earth mound and branch covered graves, without headstones. The graves are situated no more than approximately 7-10m from one another. However, the general area is also known as the 'old cemetery' and it is believed that a number of 'old' graves are located on the general terrain; but earth mounds have settled and branch demarcations have decayed. With thick vegetation cover none of the 'old' graves are discernible. Development in the general area can reasonably be inferred to be problematic – this may impact on unidentified graves. It is recommended that a reasonable area, comprising of approximately 3 stands (See Map 7) be set aside to ensure conservation not only of the SS-G3-4 identified graves but also the reported on 'old' graves. Should this area be extended to comprise of approximately 6 stands the proposed cemetery site may well also serve as a cemetery for the Sunny South housing development.

RECOMMENDATIONS: Both discernible and 'old' graves at the SS-G3-4 cemetery are ascribed SAHRA *High Significance, Generally Protected IV-A Field Ratings*. It is recommended that a minimum approximate 80x45m area be set aside to ensure conservation of the SS-G3-4 cemetery. Should development be able to accommodate an approximate 80x80m area it will be possible to provide for a small cemetery within the development layout and consider re-internment of selected graves located on the study site footprint (See Map 7).

2.2.3.4) AREA G4

- ❖ SS-G4-1: Single Grave – $S33^{\circ}04'16.9''$; $E27^{\circ}37'48.8''$

The SS-G4-1 locality is characterized by a bush, without any further typical grave demarcations. The grave site is located within the study site footprint. Either conservation or exhumation and re-internment for purposes of development can be considered by the developer to meet heritage management compliance requirements.

RECOMMENDATIONS: Grave site SS-G4-1 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be impacted on by the proposed development layout and the developer may consider either in situ conservation or relocation:

1. In situ conservation: The developer should ensure that the grave site be conserved within the final development layout. Minimum requirements should include a formal fence with access gate to the grave with a minimum of a 2m conservation buffer around the fenced grave. Conservation measures should be consulted with the community before implementation. OR
2. Exhumation and re-internment of the remains in a formal cemetery. Should a cemetery site be established within the Sunny South development layout, this would be the preferable re-internment locality. Exhumation and re-internment should be consulted with the community before implementation.

- ❖ SS-G4-2: Single Grave – $S33^{\circ}04'17.0''$; $E27^{\circ}37'48.3''$

The SS-G4-2 grave locality is not demarcated and was pointed out by community members, at present characterized only by poles overlying the site. Site conservation or exhumation and re-internment can be considered by the developer as heritage management compliance option.

RECOMMENDATIONS: Grave site SS-G4-1 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The site will be impacted on by the proposed development layout and the developer may consider either in situ conservation or relocation:

1. In situ conservation: The developer should ensure that the grave site be conserved within the final development layout. Minimum requirements should include a formal fence with access gate to the grave with a minimum of a 2m conservation buffer around the fenced grave. Conservation measures should be consulted with the community before implementation. OR
2. Exhumation and re-internment of the remains in a formal cemetery. Should a cemetery site be established within the Sunny South development layout, this would be the preferable re-internment locality. Exhumation and re-internment should be consulted with the community before implementation.

2.2.3.5) AREA G5

- ❖ SS-G5-1: Two Graves – $S33^{\circ}03'52.7''$; $E27^{\circ}38'05.1''$

The 2 SS-G5-1 graves are situated approximately 5-7m apart. The first grave is situated with the branch fenced livestock enclosure of the homestead while the 2nd grave site is located just north thereof and comprises of a large

stone outlined grave site with mound and branch cover. Neither of the graves will be impacted on by the proposed development.

RECOMMENDATIONS: The SS-G5-1 graves are assigned SAHRA *High Significance, Generally Protected IV-A Field Ratings*. The graves will not be impacted on by development.

❖ SS-G5-2: Single Grave – S33°03'51.4"; E27°38'06.5"

The SS-G5-2 grave is characterized by an earth mound demarcation, without a headstone or further grave indicator. The site will not be impacted on by development; the site will be conserved in situ.

RECOMMENDATIONS: Grave SS-G5-2 is assigned a SAHRA *High Significance* and a *Generally Protected IV-A Field Rating*. The grave site will be conserved.



Plate 17: Grave SS-G1-1



Plate 19: Close-up of a grave from the SS-G1-2 cemetery [1]



Plate 18: View of the SS-G1-2 cemetery



Plate 20: Close-up of a grave from the SS-G1-2 cemetery [2]



Plate 21: Close-up of a grave from the SS-G1-2 cemetery [3]



Plate 23: Close-up of the headstone of the SS-G1-3 grave



Plate 22: General view of the SS-G1-3 grave



Plate 24: Grave SS-G1-3



Plate 25: General view of the SS-G2-1 cemetery [1]



Plate 27: Close-up of a grave at SS-G2-1 [1]



Plate 26: General view of the SS-G2-1 cemetery [2]



Plate 28: Close-up of graves at SS-G2-1



Plate 29: Close-up of a grave at SS-G2-1 [2]



Plate 31: SS-G2-2 – A vegetated earth mound grave



Plate 30: SS-G2-2 – Locality of a male grave within the livestock fence



Plate 32: View of the SS-G2-3 earth mound grave



Plate 33: The stone and branch mounded grave at SS-G2-4



Plate 35: Grave 1 from the SS-G2-5 livestock enclosure



Plate 34: Grave in thick vegetation at SS-G2-4



Plate 36: Locality of grave 2 from the SS-G2-5 livestock enclosure



Plate 37: Bush with purple flowers demarcating the locality of the SS-G3-1 grave



Plate 39: View of the individually fenced SS-G3-3 grave



Plate 38: View of the SS-G3-2 graves with metal headstones



Plate 40: View of discernible graves within the SS-G3-4 cemetery



Plate 41: A branch demarcated grave at SS-G3-4, with metal headstone



Plate 43: View of the SS-G3-4 area where older graves are believed to be present



Plate 42: Close-up of a branch covered grave at SS-G3-4



Plate 44: View of the SS-G4-1 grave locality



Plate 45: View of grave site SS-G4-2



Plate 47: View of the SS-G5-1 stone outlines grave site



Plate 46: View of the SS-G5-1 grave site adjacent to the livestock fence



Plate 48: View of grave SS-G5-2

3) CONCLUSION AND RECOMMENDATIONS

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the proposed *Sunny South Housing Development*, BCMM, Eastern Cape, proceeds as applied for provided the developer comply with the below listed heritage compliance requirements:

SUNNY SOUTH HOUSING DEVELOPMENT				
FARM 1025, BCMM, EASTERN CAPE				
Map Code	Type / Period	Description	Co-ordinates	Recommendations
<i>Sunny South Housing Development, BCMM, EC – S33°04'19.6"; E27°37'38.5"</i>				
SS-1	Contemporary	Structures	S33°04'04.0"; E27°37'20.7"	N/A
SS-2	Contemporary	Structure	S33°04'06.6"; E27°37'25.8"	N/A
SS-3	Colonial Period	Residence	S33°04'03.8"; E27°37'30.6"	Conservation
SS-4	Colonial Period	Factory	S33°04'09.7"; E27°37'31.6"	Conservation OR Alteration / Destruction under an EC PHRA Built Environment Permit
SS-5	Contemporary	Structures	S33°04'29.5"; E27°37'59.0"	N/A (outside study site)
SS-6	Contemporary	Structure	S33°04'30.4"; E27°38'02.3"	N/A
SS-7	Contemporary	Structures	S33°04'30.9"; E27°38'07.2"	N/A
SS-G1-1	Grave/Cemetery	Single Grave	S33°04'14.7"; E27°38'40.3"	Conservation (outside study site)
SS-G1-2	Grave/Cemetery	Cemetery	S33°04'13.8"; E27°38'40.3"	Conservation (outside study site)
SS-G1-3	Grave/Cemetery	Single Grave	S33°04'19.4"; E27°38'39.9"	Conservation (outside study site)
SS-G1-4	Grave/Cemetery	Single Grave	S33°04'13.5"; E27°38'49.3"	Conservation (outside study site)
SS-G2-1	Grave/Cemetery	Cemetery	S33°04'40.7"; E27°38'07.8"	Conservation (outside study site)
SS-G2-2	Grave/Cemetery	Two Graves	S33°04'41.4"; E27°38'03.8"	Conservation (outside study site)
SS-G2-3	Grave/Cemetery	Single Grave	S33°04'40.2"; E27°38'03.1"	Conservation (outside study site)
SS-G2-4	Grave/Cemetery	Two Graves	S33°04'41.1"; E27°37'59.6"	Conservation (outside study site)
SS-G2-5	Grave/Cemetery	Two Graves	S33°04'40.6"; E27°37'59.3"	Conservation (outside study site)
SS-G3-1	Grave/Cemetery	Single Grave	S33°04'27.0"; E27°37'42.2"	Conservation OR Relocation (with consultation)
SS-G3-2	Grave/Cemetery	Two Graves	S33°04'27.8"; E27°37'40.8"	Conservation OR Relocation (with consultation)
SS-G3-3	Grave/Cemetery	Single Grave	S33°04'27.1"; E27°37'37.0"	Conservation OR Relocation (with consultation)
SS-G3-4	Grave/Cemetery	Cemetery	S33°04'25.2"; E27°37'32.3"	Conservation
SS-G4-1	Grave/Cemetery	Single Grave	S33°04'16.9"; E27°37'48.8"	Conservation OR Relocation (with consultation)
SS-G4-2	Grave/Cemetery	Single Grave	S33°04'17.0"; E27°37'48.3"	Conservation OR Relocation (with consultation)
SS-G5-1	Grave/Cemetery	Two Graves	S33°03'52.7"; E27°38'05.1"	Conservation (outside study site)
SS-G5-2	Grave/Cemetery	Single Grave	S33°03'51.4"; E27°38'06.5"	Conservation (outside study site)

Table 2: Development and Phase 1 AIA findings – co-ordinate details

NOTES:

- Should any archaeological or cultural heritage resources, including human remains / graves, as defined and protected under the NHRA 1999, and not reported on in this report be identified during the course of development the developer should immediately cease operation in the vicinity of the find and report the site to the EC PHRA / an ASAPA accredited CRM archaeologist. Human remains confirmed younger than 60 years are to be reported directly to the nearest police station.

- Should any registered Interested & Affected Party (I&AP) wish to be consulted in terms of Section 38(3)(e) of the NHRA 1999 (Socio-cultural consultation / SAHRA SIA) it is recommended that the developer / EAP ensures that the consultation be prioritized within the timeframe of the Environmental Impact Assessment (EIA).

4) REFERENCES

1. Binneman, J. & Webley, L.E. (Albany Museum). 1996. *Proposed Eastern Cape Zinc and Phosphoric Acid Project: Baseline Report: Sensitivity and Cultural Sites*.
2. Coetzee, F.P. (UNISA). 2008. *Cultural Heritage Survey for the Nungu Trading 672 (Pty) Ltd Prospecting Application, East London, Eastern Cape*.
3. EIMS. 2013. *Final Scoping Report. The Proposed Sunny South Housing development. Buffalo City metropolitan Municipality*.
4. <http://en.wikipedia.org/wiki/Nongqawuse>.
5. South African Government. (No. 107 of) 1998. *National Environmental Management Act*.
6. South African Government. (No. 25 of) 1999. *National Heritage Resources Act*.
7. South African Heritage Resources Agency. 2007. *Minimum Standards for the Archaeological and Heritage Components of Impact Assessments*. (Unpublished guidelines.)
8. Van Ryneveld, K. (ArchaeoMaps). 2008a. *Phase 1 Archaeological Impact Assessment. Kidd's Beach Golfing Estate, Portions of Farms 1075, 1076, 1077, 1078, 1079 and 1086, Kidd's Beach, East London, Eastern Cape, South Africa*.
9. Van Ryneveld, K. (ArchaeoMaps). 2008b. *Phase 1 Archaeological Impact Assessment. Rezoning and Mixed- Use Development, Portion 4 of Farm 1050, Kidd's Beach, East London, Eastern Cape, South Africa*.
10. Van Ryneveld, K. (ArchaeoMaps). 2008i. *Phase 1 Archaeological Impact Assessment. Industrial Development, Erven 17532 and 49336, Orange Grove, East London, Eastern Cape, South Africa*.
11. Van Ryneveld, K. (ArchaeoMaps). 2008j. *Phase 1 Archaeological Impact Assessment. Hotel and Conference Centre Development, Portion 2 of Farm 992, Cove Rock, Eastern Cape, South Africa*.
12. Van Ryneveld, K. (ArchaeoMaps). 2012. *Phase 1 Archaeological Impact Assessment. Cove Rock Country Estate Extension, Farm 980, Farm 961/1 and Farm RE 1234, Cove Rock, East London, Eastern Cape, South Africa*.

INTRODUCTION TO THE ARCHAEOLOGY OF SOUTH AFRICA

Archaeologically the southern African cultural environment is roughly divided into the Stone Age, the Iron Age and the Colonial Period, including its subsequent Industrial component. This cultural division has a rough temporal association beginning with the Stone Age, followed by the Iron Age and the Colonial Period. The division is based on the identified primary technology used. The hunter-gatherer lifestyle of the Stone Age is identified in the archaeological record through stone being the primary raw material used to produce tools. Iron Age people, known for their skill to work iron and other metal, also practiced agriculture and animal husbandry. Kingdoms and civilizations associated with the Iron Age are indicative of a complex social hierarchy. The Colonial Period is marked by the advent of writing, in southern Africa primarily associated with the first European travelers (Mitchell 2002).

During the latter part of the Later Stone Age (LSA) hunter-gatherers shared their cultural landscape with both pastoralists and Iron Age people, while the advent of the Colonial Period in South Africa is marked by a complex cultural mosaic of people; including LSA hunter-gatherers, pastoralists, Later Iron Age farming communities and Colonial occupation.

1) EARLY HOMININ EVOLUTION

DNA studies indicate that humans and chimpanzees shared a common ancestor between 6-8Mya (Sibley & Ahlquist 1984). By 4Mya, based on fossil evidence from Ethiopia and Kenya, hominins (humans and their immediate fossil ancestors and relatives) had already evolved. The earliest fossils are ascribed to *Ardipithecus ramidus* (4.4Mya), succeeded by *Australopithecus anamensis* (4.2-3.9Mya). These fossils are inferred to lie at the base from which all other hominins evolved (Leakey *et al.* 1995; White *et al.* 1994).

In South Africa the later hominins are classed into 3 groups or distinct genera; *Australopithecus* (gracile australopithecines), *Paranthropus* (robust australopithecines) and *Homo*. South Africa has 3 major hominin sites: Taung in the North-West Province, where Raymond Dart identified the first *Australopithecus* fossil in 1924 (Dart 1925); The Cradle of Humankind (Sterkfontein Valley) sites in Gauteng, the most prolific hominin locality in the world for the period dating 3.5-1.5Mya which have yielded numerous *Australopithecus*, *Paranthropus* and limited *Homo* fossils (Keyser *et al.* 2000; Tobias 2000); and Makapansgat in the Limpopo Province, where several more specimens believed to be older than most of the Cradle specimens were discovered (Klein 1999).

A. africanus, represented at all 3 sites are believed to have been present on the South African landscape from about 3Mya. From approximately 2.8Mya they shared, at least in the Cradle area, the landscape with *P. robustus* and from roughly 2.3Mya with early forms of *Homo* (Clarke 1999). Global climatic cooling around 2.5Mya may have stimulated a burst of species turnover amongst hominins (Vrba 1992); the approximate contemporary appearance of the first stone tools suggests that this was a critical stage in human evolution. But exactly which early hominin population is to be accredited as the ancestor of *Homo* remains elusive.

H. ergaster is present in the African palaeo-anthropological record from around 1.8Mya and shortly thereafter the first exodus from Africa is evidenced by *H. erectus* specimens from China, Indonesia and even Europe (Klein 1999).

2) THE STONE AGE

2.1) The Earlier Stone Age

In South Africa the only Earlier Stone Age (ESA) Oldowan lithic assemblage comes from Sterkfontein Cave. The predominant quartz assemblage is technologically very simple, highly informal and inferred to comprise exclusively of multi-purpose tools (Kuman *et al.* 1997). The latter part of the ESA is characterized by the Acheulean Industrial Complex, present in the archaeological record from at least 1.5Mya. Both *H. ergaster* and *P. robustus* may be accredited with the production of these tools. The association between stone tools and increased access to meat and marrow supporting the greater dietary breadth of *Homo* may have been vital to *Homo's* evolutionary success; and the eventual extinction of the robust australopithecines (Klein 1999).

Probably the longest lasting artefact tradition ever created by hominins, the Acheulean is found from Cape Town to north-western Europe and India, occurring widely in South Africa. Despite the many sites it is still considered a 'prehistoric dark age' by many archaeologists, encompassing one of the most critical periods in human evolution; the transition from *H. ergaster* to archaic forms of *H. Sapiens* (Klein 1999).

The Acheulean industry is characterized by handaxes and cleavers as *fosilles directeurs* (signatory artefact types), in association with cores and flakes. Handaxes and cleavers were multi-purpose tools used to work both meat and plant matter (Binneman & Beaumont 1992). Later Acheulean

flaking techniques involved a degree of core preparation that allowed a single large flake of predetermined shape and size to be produced. This *Victoria West technique* indicates an origin within the Acheulean for the *Levallois technique* of the Middle Stone Age (Noble & Davidson 1966). The lithic artefact component was supplemented by wood and other organic material (Deacon 1970).

2.2) The Middle Stone Age

The Middle Stone Age (MSA), dating from approximately 500kya to 40-27/23kya is interpreted as an intermediate technology between the Acheulean and the Later Stone Age (LSA) (Goodwin & van Riet Lowe 1929). The MSA is typologically characterized by the absence of handaxes and cleavers, the use of prepared core techniques and the production of blades, triangular and convergent flakes, with convergent dorsal scars and faceted striking platforms, often produced by means of the *Levallois technique* (Volman 1984). The widespread occurrence of MSA technology across Africa and its spread into much of Eurasia in Oxygen Isotope Stage (OIS) 7 is viewed as part of a process of population dispersal associated with both the ancestors of the later Neanderthals in Europe and anatomically modern humans in Africa (Foley & Lahr 1997).

After the riches offered by the Cradle sites and Makapansgat, southern Africa's Middle Pleistocene fossil record is comparatively poor. Early Middle Pleistocene fossil evidence suggests an archaic appearance and fossils are often assigned to *H. heidelbergensis* and *H. sapiens rhodesiensis* (Rightmire 1976). Modern looking remains, primarily from Border Cave (KwaZulu-Natal) and Klasies River Mouth (Eastern Cape) raised the possibility that anatomically modern humans had, by 120kya, originated south of the Sahara before spreading to other parts of the world (Brauer 1982; Stringer 1985). Subsequent studies of modern DNA indicated that African populations are genetically more diverse and probably older than those elsewhere (Cann *et al.* 1994). Combined, the fossil and genetic evidence underpins the so-called *Out of Africa 2* model (arguing that gene flow and natural selection led regional hominin populations along distinct evolutionary trajectories after *Homo's* expansion from Africa in the Lower Pleistocene *Out of Africa 1* model) of modern human origins and the continuing debate as to whether it should be preferred to its *Multiregional* alternative (arguing that modern humans evolved more or less simultaneously right across the Old World) (Mellars & Stringer 1989; Aitken *et al.* 1993; Nitecki & Nitecki 1994).

Persuasive evidence of ritual activity or bodily decoration is evidenced by the widespread presence of red ochre at particularly MSA 2 sites (after Volman's 1984 MSA 1-4 model; Hensilwood & Sealy 1997), while evidence from Lion Cave, Swaziland, indicates that specularite may have been mined as early as 100kya (Beaumont 1973). Evidence for symbolic behavioral activity is largely absent; no evidence for rock art or formal burial practices exists.

2.3) The Later Stone Age

Artefacts characteristic of the Later Stone Age (LSA) appear in the archaeological record from 40/27-23kya and incorporates microlithic as well as macrolithic assemblages. Artefacts were produced by modern *H. sapien* or *H. sapien sapien*, who subsisted on a hunter-gatherer way of life (Deacon 1984; Mitchell 2002).

According to Deacon (1984) the LSA can temporally be divided into 4 broad units directly associated with climatic, technological and subsistence changes:

1. Late Pleistocene microlithic assemblages (40-12kya);
2. Terminal Pleistocene / early Holocene non-microlithic assemblages (12-8kya);
3. Holocene microlithic assemblages (8kya to the Historic Period); and
4. Holocene assemblages with pottery (2kya to the Historic Period) closely associated with the influx of pastoralist communities into South Africa (Mitchell 2002).

Elements of material culture characteristic of the LSA reflect modern behavior. Deacon (1984) summarizes these as:

1. Symbolic and representational art (paintings and engravings);
2. Items of personal adornment such as decorated ostrich eggshell, decorated bone tools and beads, pendants and amulets of ostrich eggshell, marine and freshwater shells;
3. Specialized hunting and fishing equipment in the form of bows and arrows, fish hooks and sinkers;
4. A greater variety of specialized tools including bone needles and awls and bone skin-working tools;
5. Specialized food gathering tools and containers such as bored stone digging stick weights, carrying bags of leather and netting, ostrich eggshell water containers, tortoiseshell bowls and scoops and later pottery and stone bowls;
6. Formal burial of the dead in graves (sometimes covered with painted stones or grindstones and accompanied by grave goods);
7. The miniaturization of selected stone tools linked to the practice of hafting for composite tools production; and
8. A characteristic range of specialized tools designed for making some of the items listed above.

➤ Rock Art

Rock Art is one of the most visible and informative components of South Africa's archaeological record. Research into LSA ethnography (as KhoiSan history) has revolutionized our understanding of both painted and engraved (petroglyph) images, resulting in a paradigm shift in Stone Age archaeology (Deacon & Dowson 2001). Paintings are concentrated in the Drakensberg / Maluti mountains, the eastern Free State, the Cape Fold Mountains, the Waterberg Plateau and the Soutpansberg mountains. Engravings on the other hand are found throughout the Karoo, the western Free State and North-West Province (Mitchell 2002). Both forms of LSA art drew upon a common stock of motifs, derived from widely shared beliefs and include a restricted range of naturalistically depicted animals, geometric imagery, human body postures and non-realistic combinations of human and animal figures (anthropomorphic figurines). LSA Rock Art is closely associated with spiritual or magical significance (Lewis-Williams & Dowson 1999).

Aside from LSA or KhoiSan Rock Art, thus art produced by both hunter-gatherer and pastoralist and agro-pastoralist groups, Rock Art produced by Iron Age populations are known to be present towards the north of the country.

➤ Shell Middens ('Strandloper' Cultures)

South Africa's nearly 3,000km coastline is dotted by thousands of shell middens, situated between the high water mark and approximately 5km inland, bearing witness to long-term exploitation of shellfish mainly over the past 12,000 years. These LSA shell middens are easily distinguishable from natural accumulations of shells and deposits can include bones of animals eaten such as shellfish, turtles and seabirds, crustaceans like crabs and crayfish and marine mammal remains of seals, dolphins and occasionally whales. Artefacts and hearth and cooking remains are often found in shell midden deposits. Evidence exist that fish were speared, collected by hand, reed baskets and by means of stone fish traps in tidal pools (Mitchell 2002).

Shell midden remains were in the past erroneously assigned to 'Strandloper cultures'. Deacon & Deacon (1999) explain that '*no biological or cultural group had exclusive rights to coastal resources.*' Some LSA groups visited the coast periodically while others stayed year round and it is misleading to call them all by the same name. Two primary sources of archaeological enquiry serves to shed more light on the lifestyles of people who accumulated shell middens, one being the analysis of food remains in the middens itself and the other being the analysis of LSA human skeletal remains of people buried either in shell middens or within reasonable proximity to the coast.

Shell middens vary in character ranging from large sites tens of meters in extent and with considerable depositional depth to fairly small ephemeral collections, easily exposed and destroyed by shifting dune action. Shell middens are also found inland, along rivers where fresh water mussels occur. These middens are often fairly small and less common; in the Eastern Cape often dated to within the past 3,000 years (Deacon & Deacon 1999).

In addition shell middens are not exclusively assigned to LSA cultures; shellfish were exploited during the Last Interglacial, indicating that the practice was most probably continuous for the past 120,000 years (MSA shell middens). Along the coast of KwaZulu-Natal evidence exist for the exploitation of marine food resources by Iron Age communities. These shell middens are easily distinguished from Stone Age middens by particularly rich, often decorated ceramic artefact content. Colonial Period shell middens are quite rare and extremely ephemeral in character; primarily the result of European shipwreck survivors and reported on along the coast of KwaZulu-Natal and the Transkei, Eastern Cape.

3) THE IRON AGE

For close to 2 millennia people combining cereal agriculture with stock keeping have occupied most of southern Africa's summer rainfall zone. The rapid spread of farming, distinctive ceramics and metallurgy is understood as the expansion of a Bantu-speaking population, in archaeological terms referred to as the Iron Age.

3.1) The Early Iron Age

Ceramic typology is central to current discussions of the expansion of iron using farming communities. The most widely used approach is that of Huffman (1980), who employs a multidimensional analysis (vessel profile, decoration layout and motif) to reconstruct different ceramic types. Huffman (1998) argues that ceramics can be used to trace the movements of people, though not necessarily of specific social or political groupings. Huffman's Urewe Tradition coincides largely with Phillipson's (1977) Eastern Stream. A combined Urewe Tradition / Eastern Stream model for the Early Iron Age can be summarized as:

1. The Kwale branch (extending along the coast from Kenya to KwaZulu-Natal);
2. The Nkope branch (located inland and reaching from southern Tanzania through Malawi and eastern Zambia into Zimbabwe); and
3. The Kalundu branch (stretching from Angola through western Zambia, Botswana and Zimbabwe into South Africa).

In southern Africa, recent work distinguishes two phases of the Kwale branch: The earlier Silver Leaves facies (250-430AD) occurring as far south as the Northern Province. The later expression or Mzonjani facies (420-580AD) occurs in the Northern Province as well as along the KwaZulu-Natal coastal belt (Huffman 1998). Since the Silver Leaves facies is only slightly younger than the Kwale type site in Kenya, very rapid movement along the coast, perhaps partly by boat, is inferred (Klapwijk 1974). Subsequently (550-650AD) people making Mzonjani derived ceramics settled more widely in the interior of South Africa.

Assemblages attributable to the Nkope branch appear south of the Zambezi but north of South Africa from the 5th Century. Ziwa represents an early facies, with Gokomere deriving jointly from Ziwa and Bambata. A subsequent phase is represented by the Zhizo facies of the Shashe-Limpopo basin, and by Taukome (Huffman 1994). Related sites occur in the Kruger National Park (Meyer 1988). Zhizo (7th – 10th Century) is ancestral to the Toutswe tradition which persisted in eastern Botswana into the 13th Century.

Kalundu origins need further investigation; its subsequent development is however better understood. A post Bambata phase is represented by the 5th – 7th Century sites of Happy Rest, Klein Africa and Maunatlana in the Northern Province and Mpumalanga (Prinsloo 1974, 1989). Later phases are present at the Lydenburg Heads site (Whitelaw & Moon 1996) and by the succession of Mzuluzi, Ndondonwane and Ntshekane in KwaZulu-Natal (7th – 10th Centuries) (Prins & Grainger 1993). Later Kalundu facies include Klingbeil and Eiland in the northern part of the country (Evers 1980) with Kgopolwe being a lowveld variant in Mpumalanga (10th – 12th Century). Broadhurst and other sites indicate a still later survival in Botswana (Campbell 1991).

Despite the importance accorded to iron agricultural implements in expanding the spread of farming and frequent finds of production debris, metal objects are rare. Metal techniques were simple, with no particular sign of casting, wire drawing or hot working. Jewelry (bangles, beads, pendants etc.) constitute by far the largest number of finds but arrows, adzes, chisels, points and spatulae are known (Miller 1996).

Early Iron Age people were limited to the Miombo and Savannah biomes; excluded from much of the continent's western half by aridity and confined in the south during the 1st millennium to bushveld areas of the old Transvaal. Declining summer rainfall restricted occupation to a diminishing belt close to the East Coast and north of 33°S (Maggs 1994); sites such as Canasta Place (800AD), Eastern Cape, mark the southern-most limit of Early Iron Age settlement (Nogwaza 1994).

➤ The Central Cattle Pattern

The Central Cattle Pattern (CCP) was the main cognitive pattern since the Early Iron Age (Huffman 1986). The system can be summarized as opposition between male pastoralism and female agriculture; ancestors and descendants; rulers and subjects; and men and women. Cattle served as the primary means of transaction; they represented symbols exchanged for the fertility of wives, legitimacy of children and appeasement of ancestors. Cattle were also used as tribute to rulers confirming sub-ordination and redistribution as loan cattle by the ruler to gain political support. Cattle represented healing and fertilizing qualities (Huffman 1998; Kuper 1980).

This cognitive and conceptual structure underlies all cultural behavior, including the placement of features in a settlement. The oppositions of male and female, pastoralism and agriculture, ancestors and descendants, rulers and subjects, cool and hot are represented in spatial oppositions, either concentric or diametric (Huffman 1986).

A typical CCP village comprises of a central cattle enclosure (byre) where men are buried. The *Kgotla* (men's meeting place / court) is situated adjacent to the cattle enclosure. Surrounding the enclosure is an arc of houses, occupied according to seniority. Around the outer perimeter of the houses is an arc of granaries where women keep their pots and grinding stones (Huffman 1986). The model varies per ethnic group which helps to distinguish ethnicity throughout the Iron Age, but more studies are required to recognize the patterns.

3.2) The Middle Iron Age

The hiatus of South African Middle Iron Age activity was centered in the Shashe-Limpopo Valley and characterized by the 5-tier hierarchical Mapungubwe State spanning some 30,000km². By the 1st millennium ivory and skins were already exported overseas, with sites like Sofala and Chibueni, Mozambique, interfacing between interior and transoceanic traders. Exotic glass beads, cloth and Middle Eastern ceramics present at southern African sites mark the beginning of the region's incorporation into the expanding economic system that, partly tied together with maritime trading links across the Indian Ocean, increasingly united Africa, Asia and Europe long before Da Gama or Columbus (Eloff & Meyer 1981; Meyer 1998).

Occupation was initially focused at Bambandanyalo and K2. The Bambandanyalo main midden (1030-1220AD) stands out above the surrounding area, reaching more than 6m in places and covering more than 8ha the site may have housed as many as 2,000 people (Meyer 1998). The CCP was not strictly followed; whether this is ideologically significant or merely a reflection of local typography remains unclear. The

midden, the size of which may reflect the status of the settlement's ruler, engulfed the byre around 1060-1080AD, necessitating relocation of the cattle previously kept there. The re-organization of space and worldview implied suggests profound social changes even before the sites' abandonment in the early 13th century, when the focus of occupation moved to Mapungubwe Hill, 1 km away (Huffman 1998).

Excavations at Mapungubwe Hill, though only occupied for a few decades (1220-1290AD), yielded a deep succession of gravel floors and house debris (Eloff & Meyer 1981). Huffman (1998) suggests that the suddenness with which Mapungubwe was occupied may imply a deliberate decision to give spatial expression to a new social order in which leaders physically removed themselves from ordinary people by moving onto more inaccessible, higher elevations behind the stone walls demarcating elite residential areas. Social and settlement changes speak of considerable centralization of power and perhaps the elaboration of new ways of linking leaders and subjects.

At Bambandanyalo and Mapungubwe elite burial grave goods include copper, bone, ivory and golden ornaments and beads. Social significance of cattle is reinforced by their importance among the many human and animal ceramic figurines and at least 6 'beast burials' (Meyer 1998).

Today the drought prone Shashe-Limpopo Valley receives less than 350mm of rainfall per annum, making cereal cultivation virtually impossible. The shift to drier conditions in the late 1200's across the Shashe-Limpopo basin and the eastern Kalahari may have been pivotal in the break-up of the Mapungubwe polity, the collapse of Botswana's Toutswe tradition and the emergence of Great Zimbabwe (1220-1550AD), southern Africa's best known and largest (720ha) archaeological site (Meyer 1998).

South of the Limpopo and north of the Soutpansberg, Mapungubwe derived communities survived into the 14th Century, contemporary with the establishment of Sotho-speaking makers of Maloko pottery.

3.3) The Later Iron Age

South African farming communities of the 2nd millennium experienced increased specialization of production and exchange, the development of more nucleated settlement patterns and growing political centralization, albeit not to the same extent as those participating in the Zimbabwe tradition. However, together they form the background to the cataclysmic events of the late 18th / early 19th Century *Mfecane* (Mitchell 2002).

Archaeological evidence of settlement pattern, social organization and ritual practice often differ from those recorded ethnographically. The Moloko ceramic tradition seems to be ancestral to modern Sotho-Tswana speakers (Evers 1980) and from about 1,100AD a second tradition, the Blackburn tradition, appears along South Africa's eastern coastline. Blackburn produced mostly undecorated pottery (Davies 1971), while Mpambanyoni assemblages, reaching as far south as Transkei, includes examples of rim notching, incised lines and burnished ochre slip (Robey 1980). At present, no contemporary farming sites are known further inland in KwaZulu-Natal or the Eastern Cape.

Huffman (1989) argues that similarities between Blackburn and early Maloko wares imply a related origin, presumably in the Chifumbaze of Zambia or the Ivuna of Tanzania, which contains a range of ceramic attributes important in the Blackburn as well as beehive grass huts similar to those made by the Nguni. This is one of the few suggestions of contact between Sotho-Tswana and Nguni speakers on the one hand and farming communities who, if Huffman is correct, were already long established south of the Limpopo. Both ethnographic and archaeological data demonstrate that Sotho-Tswana and Nguni are patrilineal and organize their settlements according to the CCP (Kuper 1980).

From 1,300AD there is increasing evidence for the beginning of agro-pastoralist expansion considerably beyond the area of previous occupation. It is also to this time that the genealogies of several contemporary Bantu speaking groups can be traced (Wilson & Thompson 1969). Associated with this expansion was the regular employment of stone, rather than wood, as building material, an adaptation that has greatly facilitated the discovery and identification of settlements. Maggs (1976) describes 4 basic settlement types all characterized by the use of semi weathered dolomite to produce hard binding *daga* for house floors and a wall building tradition employing larger more regular stones for the inner and outer faces and smaller rubble for the infill. As with the more dispersed homesteads of KwaZulu-Natal and the Eastern Cape, sites tend to be in locally elevated situations, reflecting a deep seated Sotho and Nguni preference for benign higher places rather than supernaturally dangerous riverside localities; another important contrast to both 1st millennium (Maggs 1976) and later Zulu Kingdom settlement patterns (Hall & Maggs 1979).

The lack of evidence for iron production in the interior and eastern part of South Africa emphasize exchange relationships between various groups and associated more centralized polities. By the 19th Century iron production in KwaZulu-Natal was concentrated in particular clans and lineages and associated with a range of social and religious taboos (Maggs 1992). South of Durban comparatively few smelting sites are known (Whitelaw 1991), a trend even more apparent in Transkei (Feely 1987). However, metal remained the most important and archaeologically evident item traded between later farming communities. (Other recorded trade items include glass and ostrich eggshell beads; Indian Ocean seashells; siltstone pipes; *dagga*, and later on tobacco; pigments including ochre, graphite and specularite; hides and salt.)

Rising polity settlements are particularly evident in the north of the country and dated to the 17th Century, including Molokwane, capital of the Bakwena chiefdom (Pistorius 1994) and Kaditshwene, capital of a major section of the Hurutshe, whose population of 20,000 in 1820 almost equals contemporary Cape Town in size (Boeyens 2000). The agglomeration of Tswana settlements in the north of the country was fuelled by both population growth and conflict over access to elephant herds for ivory and long distance trade with the East Coast. During this period ceramic decoration became blander and more standardized than the earlier elaborate decoration that included red ochre and graphite coloring.

The *Mfecane* refers to the wars and population movements of the early 19th Century which culminated in the establishment of the Zulu Kingdom and came to affect much of the interior, even beyond the Zambezi: The late 18th Century was marked by increasing demands for ivory (and slaves) on the part of European traders at Delagoa Bay; as many as 50 tones of ivory were exported annually from 1750-1790. As elephant populations declined, competition increased both for them and for the post 1790 supply of food to European and American whalers calling at Delagoa Bay (Smith 1970). Cattle raiding, conflict over land and changes in climatic and subsistence strategies characterized much of the cultural landscape of the time.

Competition for access to overseas trade encouraged some leaders to replace locally organized circumcision schools and age-sets with more permanently maintained military regiments. These were now used to gain access through warfare to land, cattle and stored food. By 1810 three groups, the Mthethwa, Ndwandwe and Ngwane dominated northern KwaZulu-Natal (Wright 1995). The Mthethwa paramountcy was undermined by the killing of its leader Dingiswayo in *circa* 1818, which led to a brief period of Ndwandwe dominance. In consequence one of Dingiswayo's former tributaries, Shaka, established often forceful alliances with chiefdoms further south. Shaka's Zulu dominated coalition resisted the Ndwandwe who in return fled to Mozambique. As the Zulu polity expanded it consolidated its control over large areas, incorporating many communities into it. Others sought refuge from political instability by moving south of the Thukela River, precipitating a further *domino effect* as far as the Cape Colony's eastern border (Wright 1995).

4) THE COLONIAL PERIOD

In the 15th Century Admiral Zheng He and his subordinates impressed the power of the Ming Dynasty rulers in a series of voyages as far afield as Java, Sri Lanka, southern Arabia and along the East African coast, collecting exotic animals *en route*. But nothing more came of his expeditions and China never pursued opportunities for trade or colonization (Mote 1991).

Portuguese maritime expansion began around the time of Zheng He's voyages; motivated by a desire to establish a sea route to the riches of the Far East. By 1485 Diogo Cao had reached Cape Cross, 3 years later Bartolomeu Dias rounded the Cape of Good Hope and less than a decade later Vasco da Gama called at several places along South Africa's coast, trading with Khoekhoen (Khoi) at Mossel Bay before reaching Mozambique and crossing the ocean to India. His voyage initiated subsequent Portuguese bases from China to Iraq. In Africa interest was focused on seizing important coastal trading towns such as Sofala and gaining access to the gold of Zimbabwe. Following the 1510 Portuguese-Khoekhoen battle at Table Bay, in which the viceroy of India was killed, Portuguese ships ceased to call along the South African coast (Elphick 1985).

A number of shipwrecks, primarily along the eastern coast attest to Portuguese activity including the Sao Joao, wrecked in 1552 near Port Edward and the Sao Bento, destroyed in 1554 off the Transkei coast. Survivors' accounts provided the 1st detailed information on Africa's inhabitants (Auret & Maggs 1982).

By the late 1500's Portuguese supremacy of the Indian Ocean was threatened. From 1591 numerous Dutch and English ships called at Table Bay and in 1652 the Dutch East Indian Company (VOC) established a permanent base, with the intent to provide fresh food and water to VOC ships. In an attempt to improve the food supply a few settlers (free burghers) were allowed to establish farms. The establishment of an intensive mixed farming economy failed due to shortages of capital and labor, and free burghers turned to wheat cultivation and livestock farming. While the population grew slowly the area of settlement expanded rapidly with new administrative centers established at Stellenbosch (1676), Swellendam (1743) and Graaf-Reinet (1785). By the 1660's the Colony's frontier was too long to be effectively policed by VOC officials (Elphick 1985).

From the 1700's many settlers expanded inland over the Cape Fold Mountain Belt. The high cost of overland transport constrained the ability to sell their produce while settlement of the interior was increasingly made difficult by resident KhoiSan groups, contributing due to a lack of VOC military support to growing Company opposition in the years before British control of the Cape (1795 / 1806) (Davenport & Saunders 2000).

In 1820 a major British settlement was implanted on the eastern frontier of the Cape Colony, resulting in large numbers of the community moving into the interior, initially to KwaZulu-Natal, and then after Britain annexed Natal (1843), further into the interior to beyond the Vaal River. Disruptions of the *Mfecane* eased their takeover of African lands and the *Boers* (farmers) established several Republics. A few years later the 2nd South African War saw both the South African and Orange Free State Republics annexed by Britain, a move largely motivated by British desire to control the goldfields of the Witwatersrand. With adjacent regions of the sub-continent also falling, directly or indirectly, under

British rule and German colonization of Namibia, European control of the whole of southern Africa was firmly established before the 1st World War (Davenport & Saunders 2000).

➤ Xhosa Iron Age Cultures meets Colonists in the Eastern Cape

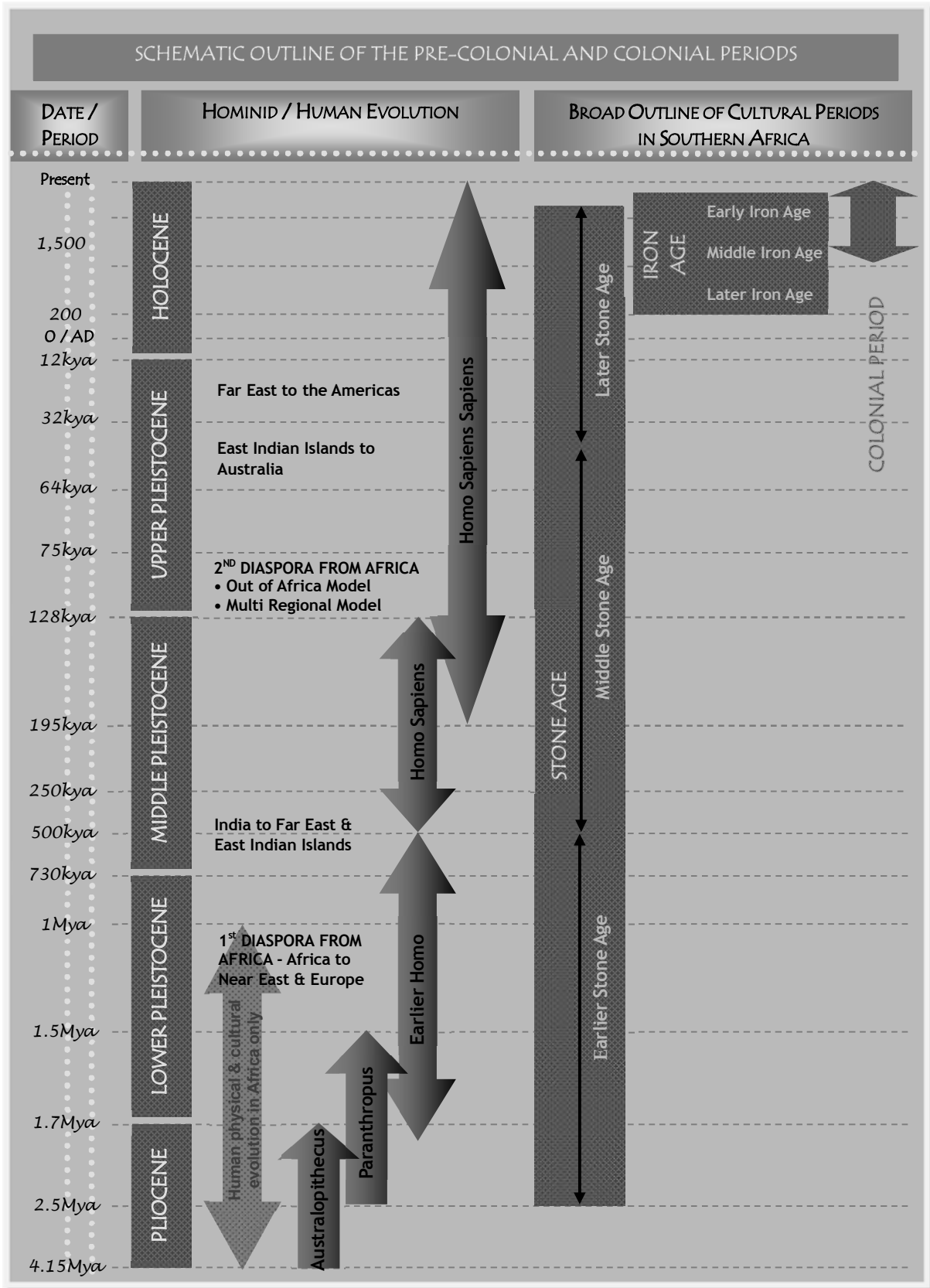
From the late 1600's conflict between migrants from the Cape (predominantly Boers) and Xhosa people in the region of the Fish River were strife, ultimately resulting in a series of 9 Frontier Wars (1702-1878) (Milton 1983). Both cultures were heavily based and reliant on agriculture and cattle farming. As more Cape migrants, and later settlers from Britain (1820) and elsewhere arrived, population pressures and competition over land, cattle and good grazing became intense. Cattle raiding became endemic on all sides, with retaliatory raids launched in response. As missionaries arrived with evangelical messages, confrontations with hostile chiefs who saw them as undermining traditional Xhosa ways of life resulted in conflicts which flared into wars.

As pressures between the European settlers and the Xhosa grew, settlers organized themselves into local militia, counteracted by Xhosa warring skills: But both sides were limited by the demands of seasonal farming and the need for labor during harvest. Wars between the Boers and the Xhosa resulted in shifting borders, from the Fish to the Sundays River, but it was only after the British annexed the Cape in 1806 that authorities turned their attention to the Eastern regions and petitions by the settlers about Xhosa raids. British expeditions, in particular under Colonel John Graham in 1811 and later Harry Smith in 1834, were sent not only to secure the frontier against the Xhosa, but also to impose British authority on the settlers, with the aim to establish a permanent British presence. Military forts were built and permanently manned. Over time the British came to dominate the area both militarily and through occupation with the introduction of British settlers. The imposition of British authority led to confrontations not only with the Xhosa but also with disaffected Boers and other settlers, and other native groups such as the Khoikhoi, the Griqua and the Mpondo. The frontier wars continued over a period of about 150 years; from the 1st arrival of the Cape settlers, and with the intervention of the British military ultimately ending in the subjugation of the Xhosa people. Fighting ended on the Eastern Cape frontier in June 1878 with the annexation of the western areas of the Transkei and administration under the authority of the Cape Colony (Milton 1983).

➤ The Industrial Revolution

The Industrial Revolution refers roughly to the period between the 18th - 19th Centuries, typified by major changes in agriculture, manufacturing, mining, transport, and technology. Changing industry had a profound effect on socio-economic and socio-cultural conditions across the world: The Industrial Revolution marks a major turning point in human history; almost every aspect of daily life was eventually influenced in some way. Average income and population size began to exhibit unprecedented growth; in the two centuries following 1800 the world's population increased over 6-fold, associated with increasing urbanization and demand of resources. Starting in the latter part of the 18th century, the transition from manual labor towards machine-based manufacturing changed the face of economic activity; including the mechanization of the textile industries, the development of iron-making techniques and the increased use of refined coal. Trade expansion was enabled by the introduction of canals, improved roads and railways. The introduction of steam power fuelled primarily by coal and powered machinery was underpinned by dramatic increases in production capacity. The development of all-metal machine tools in the first two decades of the 19th century facilitated the manufacture of more production machines in other industries (More 2000).

Effects of the Industrial Revolution were widespread across the world, with its enormous impact of change on society, a process that continues today as 'industrialization'.



5) REFERENCES CITED

1. Aitken, M.J., Stringer, C.B. & Mellars, P.A. (eds). 1993. *The origin of modern humans and the impact of chronometric dating*. Princeton: Princeton University Press
2. Auret, C. & Maggs, T.M.O'C 1982. *The great ship São Bento: remains from a mid-sixteenth century Portuguese wreck on the Pondoland coast*. Annals of the Natal Museum 25:1-39
3. Beaumont, P.B. 1973. *The ancient pigment mines of South Africa*. South African Journal of Science 69: 41-46
4. Binneman, J.N.F. & Beaumont, P.B. 1992. *Use-wear analysis of two Acheulean handaxes from Wonderwerk Cave, Northern Cape*. South African Field Archaeology 1:92-97
5. Boeyens, J.C.A. 2000. *In search of Kadishwene*. South African Archaeological Bulletin 55:3-17
6. Brauer, G. 1982. *Early anatomically modern man in Africa and the replacement of the Mediterranean and European Neanderthals*. In De Lumley, H. (ed) *L'Homme erectus et la place de l'homme de tautavel parmi les hominids fossils*. Nice: Centre National de la Recherche Scientifique
7. Cann, R.L., Rickards, O. & Lum, J.K. 1994. *Mitochondrial DNA and human evolution: our one lucky mother*. Nature 325: 31-36
8. Campbell, A.C. 1991. *The riddle of the stone walls*. Botswana Notes and Records 23:243-249
9. Clarke, R.J. 1999. *A discovery of complete arm and hand of the 3.3 million year old Australopithecus skeleton from Sterkfontein*. South African Journal of Science 95:447-480
10. Dart, R.A. 1925. *Australopithecus africanus: the man-ape of South Africa*. Nature 115:195-199
11. Davenport, T.R.H. & Saunders, C. 2000. *South Africa: A modern history*. London: Macmillan
12. Davies, O. 1971. *Excavations at Blackburn*. South African Archaeological Bulletin 26: 165-178
13. Deacon, H.J. 1970. *The Acheulian occupation at Amanzi Springs, Uitenhage District, Cape Province*. Annals of the Cape Provincial Museums 8:89-189
14. Deacon, J. 1984. *Later Stone Age people and their descendants in southern Africa*. In Klein, R.G. (ed). *Southern Africa prehistory and paleoenvironments*. Rotterdam: A.A. Balkema
15. Deacon, H.J. & Deacon, J. 1999. *Human Beginnings in South Africa. Uncovering the Secrets of the Stone Age*. Cape Town: David Phillip Publishers
16. Deacon, J. & Dowson, A.D. (eds.) 2001. *Voices from the past. /Xam Bushmen and the Bleek and Lloyd Collection*. Johannesburg: Witwatersrand University Press
17. Eloff, J.F. & Meyer, A. 1981. *The Greefswald sites*. In Voigt, E.A. (ed) *Guide to archaeological sites in the northern and eastern Transvaal*. Pretoria: South African Association of Archaeologists
18. Elphick, R. 1985. *Khoikhoi and the founding of white South Africa*. Johannesburg: Ravan Press
19. Evers, T.M. 1980. *Klingbeil Early Iron Age sites, Lydenburg, Eastern Transvaal, South Africa*. South African Archaeological Bulletin 35:46-57
20. Feeley, M. 1987. *The early farmers of Transkei, southern Africa, before AD 1870*. Oxford: British Archaeology Reports
21. Foley, R.A & Lahr, M.M. 1997. *Mode 3 technologies and the evolution of modern humans*. Cambridge Archaeological Journal 7:3-36
22. Goodwin A.J.H. & van Riet Lowe, C. 1929. *The Stone Age cultures of South Africa*. Annals of the South African Museum 27:1-289
23. Hall, M. & Maggs, T.M.O'C. 1979. *Nqabeni: a later Iron Age site in Zululand*. South African Archaeological Society Goodwin Series 3:159-176
24. Hensilwood, C. & Sealy, J.C. 1997. *Bone artefacts from the Middle Stone Age at Blombos Cave, southern Cape, South Africa*. Current Anthropology 38:390-395
25. Huffman, T.N. 1980. *Ceramics, classification and Iron Age entities*. African Studies 39:123-174
26. Huffman, T.N. 1989. *Ceramics, settlements and late Iron Age migrations*. African Archaeological Review 7: 155-182
27. Huffman, T.N. 1986. *Iron Age settlement patterns and the origin of class distinction in southern Africa*. Advances in World Archaeology 5:291-338
28. Huffman, T.N. 1994. *Toteng pottery and the origins of Bambata*. Southern African Field Archaeology 3:3-9
29. Huffman, T.N. 1998. *The antiquity of lobola*. South African Archaeological Bulletin 53:57-62
30. Keyser, A., Menter, C.G., Moggi-Cheggi, J., Pickering T.R, & Berger, L.R. 2000. *Drimolen: A new hominid bearing site in Gauteng, South Africa*. South African Journal of Science 96:193-197
31. Klapwijk, M. 1974. *A preliminary report on pottery from the north-eastern Transvaal, South Africa*. South African Archaeological Bulletin 29:19-23
32. Klein, R.G. 1999. *The human career: human biological and cultural origins*. Chicago: University of Chicago Press
33. Kuman, K, Field, A.S. & Thackeray, J.F. 1997. *Discovery of new artefacts at Kromdraai*. South African Journal of Science 93: 187-193
34. Kuper, A. 1980. *Symbolic dimensions of the southern Bantu homestead*. Africa 1:8-23

35. Leakey, M.G., Feibel, C.S., McDougall, I & Walker, A.C. 1995. *New four-million-year-old hominid species from Kanopi and Allia Bay, Kenya*. *Nature* 376:565-571
36. Lewis-Williams, D. & Dowson, T. 1999. *Images of Power. Understanding San Rock Art*. Halfway House: Southern Book Publishers
37. Maggs, T.M.O'C. 1976. *Iron Age communities of the southern Highveld*. Pietermaritzburg: Natal Museum
38. Maggs, T.M.O'C. 1992. 'My father's hammer never ceased its' song day and night': the Zulu ferrous metalworking industry. *Natal Museum Journal of Humanities* 4:65-87
39. Maggs, T.M.O'C. 1994. *The Early Iron Age in the extreme south: some patterns and problems*. *Azania* 29/30:171-178
40. Mellars, P.A. & Stringer, C.B. (eds). 1989. *The human revolution: behavioural and biological perspectives on the origins of modern humans*. Edinburgh: Edinburgh University Press
41. Miller, D.E. 1996. *The Tsodilo jewellery: metal work from northern Botswana*. Cape Town: University of Cape Town Press
42. Milton, J. 1983. *The Edges of War. A history of Frontier Wars (1702-1878)*. Kenwyn: Juta & Co.
43. Mitchell, P. 2002. *The archaeology of southern Africa*. Cambridge: Cambridge University Press
44. Meyer, A. 1988. *N kultuurhistories interpretasie van die Ystertydperk in die Nasionale Krugerwildtuin*. Phd thesis, University of Pretoria
45. Meyer, A. 1998. *The archaeological sites of Greefswald*. Pretoria: University of Pretoria Press
46. More, C. 2000. *Understanding the Industrial Revolution*. London: Routledge
47. Mote, F.W. 1991. *China in the Age of Columbus*. In Levenson, J.A. (ed) *Circa 1492: Art in the Age of Exploration*. New Haven: Yale University Press
48. Nitecki, M.H. & Nitecki, D.V. (eds). 1994. *Origins of anatomically modern humans*. New York: Plenum
49. Noble, W & Davidson, I. 1996. *Human evolution, language and mind: a psychological and archaeological enquiry*. Cambridge: Cambridge University Press
50. Nogwaza, T. 1994. *Early Iron Age pottery from Canasta Place, East London district*. *South African Field Archaeology* 3:103-106
51. Pakenham, T. 1993. *The Illustrated Boer War*. Parklands: Jonathan Ball Publishers.
52. Pistorius, J.C.C. 1992. *Molokwane an Iron Age Bakwena Village. Early Tswana settlement in the western Transvaal*. Johannesburg: Perskor Press.
53. Prins, F.E. & Grainger, J.E. 1993. *Early farming communities in northern Transkei: The evidence from Ntsitsana and adjacent areas*. *Natal Museum Journal of Humanities* 5:153-174
54. Phillipson, D.W. 1977. *The later prehistory of eastern and southern Africa*. London: Heineman
55. Prinsloo, H. P. 1974. *Early Iron Age site at Klein Afrika near Wyliespoort, Soutpansberg mountains, South Africa*. *South African Journal of science* 70:271-273
56. Prinsloo, H.P. 1989. *Vroe Ystertydperk terreine in die Soutpansberg*. M.A. Thesis, University of Pretoria
57. Rightmire, G.P. 1976. *Relationships of Middle and Upper Pleistocene hominids from sub-Saharan Africa*. *Nature* 260:238-240
58. Robey, T.S. 1980. *Mpanbanyoni, a Late Iron Age site on the Natal south coast*. *Annals of the Natal Museum* 24:147-164
59. Sibley, C.G. & Ahlquist, J.E. 1984. *The phylogeny of the hominid primates as indicated by DNA-DNA hybridization*. *Journal of molecular evolution* 20:2-15
60. Smith, A.K. 1970. *The struggle for the control of southern Mozambique 1720-1835*. *Ossa* 63-96
61. Stringer, C.B. 1985. *Middle Pleistocene hominid variability and the origin of Late Pleistocene humans*. In Delson, E. (ed) *Ancestors: the hard evidence*. New York: Alan Liss
62. Tobias, P.V. 2000. *The fossil hominids*. In Partridge, T.C. & Maud, R.R. *The Cenozoic of southern Africa*. Oxford: Oxford University Press
63. Volman T.P. 1984. *Early prehistory of southern Africa*. In Klein, R.G. *Southern Africa Prehistory and palaeoenvironments*. Rotterdam: A.A. Balkema
64. Vrba, E.S. 1992. *Mammals as a key to evolutionary theory*. *Journal of Mammology* 73:1-28
65. White, T.D., Suwa, G. & Asfaw, B. 1994. *Australopithecus ramidus: a new species of early hominid from Aramis, Ethiopia*. *Nature* 371:306-312
66. Whitelaw, G. 1991. *Precolonial Iron production around Durban and in southern KwaZulu-Natal*. *Natal Museum Journal of Humanities* 3:29-39
67. Whitelaw, G. & Moon, M. 1996. *The distribution and ceramics of pioneer agriculturists in KwaZulu-Natal*. *Natal Museum Journal of Humanities* 8:53-79
68. Wilson, M. & Thompson, L. (eds) 1969. *Oxford history of South Africa*. Oxford: Oxford University Press
69. Wright, J.B. 1995. *Political transformations in the Thukela-Mzimkhulu region in the late eighteenth and early nineteenth centuries*. In Hamilton, C. *The Mfecane aftermath: Reconstructive debates in southern African history*. Johannesburg: Witwatersrand University Press

EXTRACTS FROM THE NATIONAL HERITAGE RESOURCES ACT, NO 25 OF 1999

DEFINITIONS

Section 2

In this Act, unless the context requires otherwise:

- ii. *“Archaeological”* means –
 - a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
 - b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10 m of such representation;
 - c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic,... and any cargo, debris, or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation.
- viii. *“Development”* means any physical intervention, excavation or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –
 - a) construction, alteration, demolition, removal or change of use of a place or structure at a place;
 - b) carrying out any works on or over or under a place;
 - c) subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
 - d) constructing or putting up for display signs or hoardings;
 - e) any change to the natural or existing condition or topography of land; and
 - f) any removal or destruction of trees, or removal of vegetation or topsoil;
- xiii. *“Grave”* means a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;
- xxi. *“Living heritage”* means the intangible aspects of inherited culture, and may include –
 - a) cultural tradition;
 - b) oral history;
 - c) performance;
 - d) ritual;
 - e) popular memory;
 - f) skills and techniques;
 - g) indigenous knowledge systems; and
 - h) the holistic approach to nature, society and social relationships.
- xxxi. *“Palaeontological”* means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trances;
- xli. *“Site”* means any area of land, including land covered by water, and including any structures or objects thereon;
- xliv. *“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;

NATIONAL ESTATE

Section 3

- 1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- 2) Without limiting the generality of subsection 1), the national estate may include –
 - 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 natural features of cultural significance;
 - e) geological sites of scientific or cultural importance
 - f) archaeological and palaeontological sites;
 - g) graves and burial grounds, including –
 - i. ancestral graves;
 - ii. royal graves and graves of traditional leaders;
 - iii. graves of victims of conflict
 - iv. graves of individuals designated by the Minister by notice in the Gazette;
 - v. historical graves and cemeteries; and
 - vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No 65 of 1983)
 - h) sites of significance relating to the history of slavery in South Africa;

- i) movable objects, including –
 - i. objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - ii. objects to which oral traditions are attached or which are associated with living heritage;
 - iii. ethnographic art and objects;
 - iv. military objects;
 - v. objects of decorative or fine art;
 - vi. objects of scientific or technological interest; and
 - vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

STRUCTURES

Section 34

- 1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

ARCHAEOLOGY, PALAEOLOGY AND METEORITES

Section 35

- 3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.
- 4) No person may, without a permit issued by the responsible heritage resources authority –
 - a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological 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 palaeontological material or object, or any meteorite; or
 - d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- 5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may –
 - a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
 - b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
 - c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph a) to apply for a permit as required in subsection 4); and
 - d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.
- 6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

BURIAL GROUNDS AND GRAVES

Section 36

- 3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority –
 - a) destroy, damage, alter, exhume or remove from its original position or 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, 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 equipment, or any equipment which assists in the detection or recovery of metals.
- 4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction of any burial ground or grave referred to in subsection 3a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.
- 5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection 3b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority –

- a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
 - b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.
- 6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority –
- a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
 - b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-internment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

HERITAGE RESOURCES MANAGEMENT

Section 38

- 1) Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorised as –
- a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
 - b) the construction of a bridge or similar structure exceeding 50 m in length;
 - c) any development or other activity which will change the character of a site –
 - i. exceeding 5 000 m² in extent; or
 - ii. involving three or more existing erven or subdivisions thereof; or
 - iii. involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
 - iv. the costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - d) the rezoning of a site exceeding 10 000 m² in extent; or
 - e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
- must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- 2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection 1) –
- a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - b) notify the person concerned that this section does not apply.
- 3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection 2a) ...
- 4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development decide –
- a) whether or not the development may proceed;
 - b) any limitations or conditions to be applied to the development;
 - c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - e) whether the appointment of specialists is required as a condition of approval of the proposal.

APPOINTMENT AND POWERS OF HERITAGE INSPECTORS

Section 50

- 7) Subject to the provision of any other law, a heritage inspector or any other person authorised by a heritage resources authority in writing, may at all reasonable times enter upon any land or premises for the purpose of inspecting any heritage resource protected in terms of the provisions of this Act, or any other property in respect of which the heritage resources authority is exercising its functions and powers in terms of this Act, and may take photographs, make measurements and sketches and use any other means of recording information necessary for the purposes of this Act.
- 8) A heritage inspector may at any time inspect work being done under a permit issued in terms of this Act and may for that purpose at all reasonable times enter any place protected in terms of this Act.
- 9) Where a heritage inspector has reasonable grounds to suspect that an offence in terms of this Act has been, is being, or is about to be committed, the heritage inspector may with such assistance as he or she thinks necessary –
- a) enter and search any place, premises, vehicle, vessel or craft, and for that purpose stop and detain any vehicle, vessel or craft, in or on which the heritage inspector believes, on reasonable grounds, there is evidence related to that offence;
 - b) confiscate and detain any heritage resource or evidence concerned with the commission of the offence pending any further order from the responsible heritage resources authority; and
 - c) take such action as is reasonably necessary to prevent the commission of an offence in terms of this Act.

- 10) A heritage inspector may, if there is reason to believe that any work is being done or any action is being taken in contravention of this Act or the conditions of a permit issued in terms of this Act, order the immediate cessation of such work or action pending any further order from the responsible heritage resources authority.