

SCOPING REPORT

Archaeological Resources

Proposed rezoning, subdivision and residential development: Erf 3122, Hartenbos Garden Estate / Hartenbos Natuur-Landgoed, Mossel Bay, Western Cape Province



Prepared for

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Prepared by



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The below consists of sections compiled using the Terms of Reference supplied by Ms Van Zyl of Cape Environmental Assessment Practitioners. Scoping reports are not required by the relevant provincial heritage resources authority, and therefore, this document does not follow the format of impact assessment reports as required by Heritage Western Cape. The location and extent of the study area is shown in Figures 1 and 2.

Archaeological Sensitivity Map and the Draft Site Development Plan

An archaeological sensitivity map was produced during the constraints analysis phase of this project (Nilssen 2017). A new screening report for the development shows the development site is of low archaeological sensitivity (Van Zyl 2021). The draft Site Development Plan shown below in Figure 3 as well as the Phase Plan shown in Figure 4 has incorporated the archaeologically sensitive area at “127”. Another sensitive area in the north lies outside the revised proposed development footprint.

The applicant has made changes to earlier site development proposals to accommodate the archaeologically sensitive area that is labelled 127 in Figures 3 and 4.

The No-Go and Development Alternatives

Archaeological resources identified during previous studies of the affected property are mostly found in disturbed contexts, and therefore, their heritage value is compromised (Nilssen 2010). No sites or resources of high heritage value were identified.

The No-Go option will have neither positive nor negative impact on archaeological resources and is therefore considered to be neutral.

While any development option - involving construction - will have a negative impact on archaeological resources in the development footprint, the vast bulk of the mainly isolated Stone Age artefacts occur in disturbed contexts and are of low heritage value. Their disturbance or destruction will have a negligible negative impact on the heritage value of the area (Nilssen 2010).

It was recommended in the constraints analysis phase that the locality labelled 127 in Figures 3 and 4 should be incorporated into the development layout as this archaeological occurrence of Stone Age artefacts will add value and a potential point of interest to the development (Nilssen 2017).

A further positive impact is that residents and visitors will be exposed to a part of South Africa’s cultural heritage that is normally not readily accessible. If conserved and managed appropriately, the artefact scatter could be part of a public open space with boardwalks from which artefacts can be viewed. In the event that archaeological

resources are considered for incorporation in the development, such as displays for educational and information purposes, then it will be necessary to obtain a permit from HWC.

Remaining Direct, Indirect and Cumulative Impacts

Because the overall archaeological sensitivity of the affected property is considered to be low, there are no further direct, indirect or cumulative impacts that will require amendments to the development layout. A standard set of recommendations will be included in the final archaeological impact assessment to deal with significant archaeological or heritage resources in the event that they are exposed by vegetation clearing or earthmoving activities during the construction phase.

Terms of Reference for the detailed Impact Assessment

The previous archaeological impact assessment report will be updated to include the latest development layouts and the incorporation of archaeological resources at locality "127". The report will also be updated to conform with the latest minimum standards required by Heritage Western Cape as well as those requested by Cape-EAPrac (HWC 2016).

Archaeological Requirements in terms of the National Heritage Resources Act (Act 25 of 1999)

The legislation specific to archaeological resources is laid out as follows in section 35 of the Act.

Archaeology, palaeontology and meteorites

35. (1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(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 assist 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 a 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.
- (7) (a) Within a period of two years from the commencement of this Act, any person in possession of any archaeological or palaeontological material or object or any meteorite which was acquired other than in terms of a permit issued in terms of this Act, equivalent provincial legislation or the National Monuments Act, 1969 (Act No. 28 of 1969), must lodge with the responsible heritage resources authority lists of such objects and other information prescribed by that authority. Any such object which is not listed within the prescribed period shall be deemed to have been recovered after the date on which this Act came into effect.
- (b) Paragraph (a) does not apply to any public museum or university.
 - (c) The responsible authority may at its discretion, by notice in the Gazette or the Provincial Gazette, as the case may be, exempt any institution from the requirements of paragraph (a) subject to such conditions as may be specified in the notice, and may by similar notice withdraw or amend such exemption.
- (8) An object or collection listed under subsection (7)—
- (a) remains in the ownership of the possessor for the duration of his or her lifetime, and SAHRA must be notified who the successor is; and
 - (b) must be regularly monitored in accordance with regulations by the responsible heritage authority.

References

Heritage Western Cape. 2016. Guide For Minimum Standards For Archaeology And Palaeontology Reports Submitted To Heritage Western Cape. Approved: HWC Council June 2016.

Nilssen, P. 2010. Archaeological Impact Assessment: Proposed rezoning, subdivision and residential development: Erf 3122, Hartenbos, Mossel Bay, Western Cape Province

Nilssen, P. 2017. Constraints Analysis - Archaeological Resources: Proposed rezoning, subdivision and residential development: Erf 3122, Hartenbos Heuwels, Mossel Bay, Western Cape Province

Van Zyl, L-M. 2021. Screening Report for an Environmental Authorization as Required by the 2014 EIA Regulations – Proposed Site Environmental Sensitivity

Figures (on following pages)

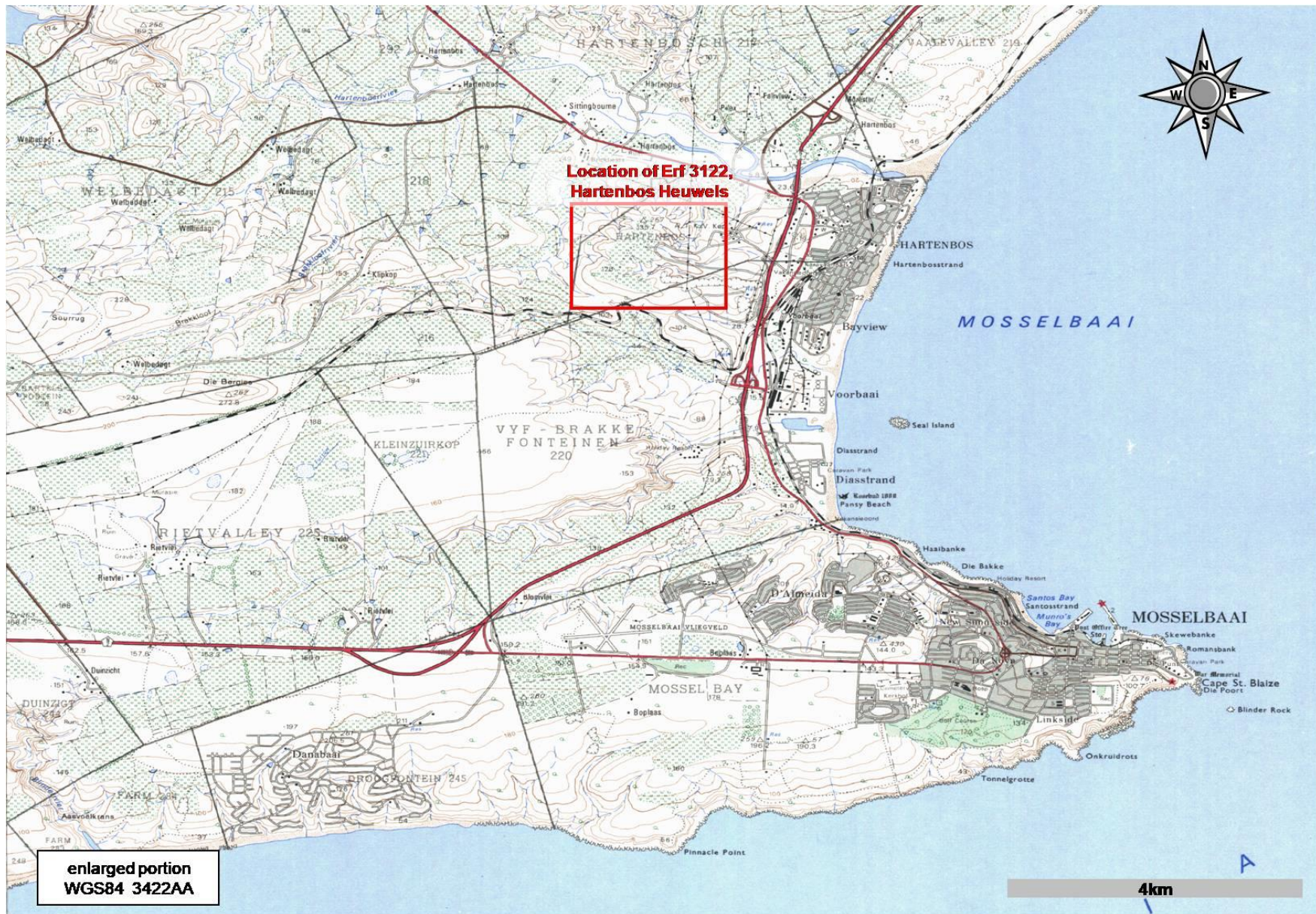


Figure 1. Locality map - study area west of Hartenbos, Western Province. Maps courtesy of Chief Directorate Surveys and Mapping (CDSM).

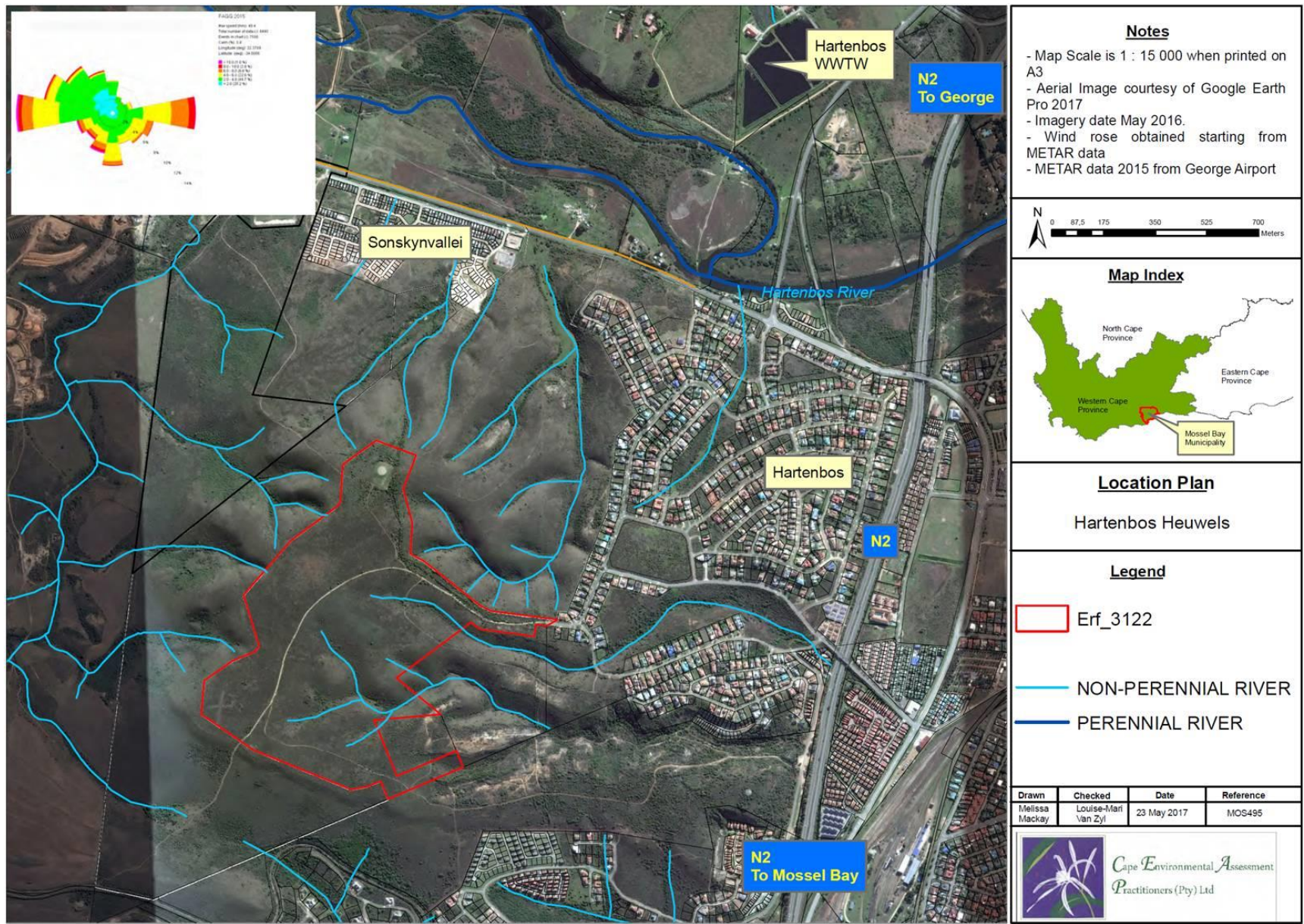


Figure 2. Enlarged area from Figure 1 showing locality, property boundary & features. Courtesy of Cape Environmental Assessment Practitioners.



Figure 3. Draft Site Development Plan with archaeologically sensitive area indicated by arrow and labelled 127. Courtesy of Hartenbos Garden Estate / Hartenbos Natuur Landgoed.

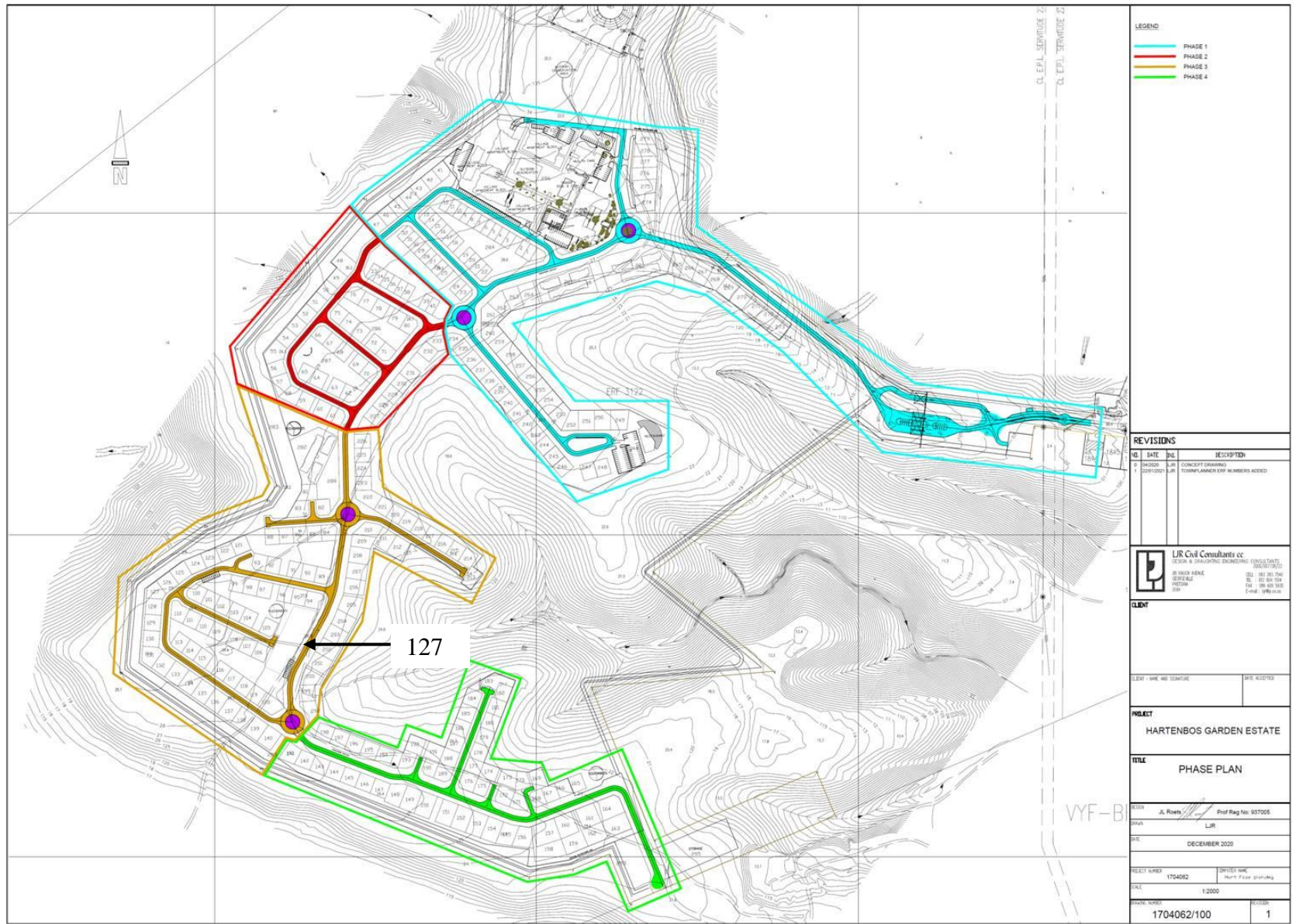


Figure 4. Draft Site Development Phase Plan with archaeologically sensitive area indicated by arrow and labelled 127. Courtesy of Hartenbos Garden Estate / Hartenbos Natuur Landgoed.

Appendix A: CURRICULUM VITAE

BIOGRAPHICAL DETAILS:

Names & Surname: Peter John Nilssen
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Postal Address: P.O. Box 2635
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South Africa
Telephone/Contact: Cellular phone: (27) 082 783 5896
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Identity Number: 641214 5081 080
Nationality: South African
Family Status: Married with two children
Drivers Licence: Code 02, 11/02/1987
Code 08, 15/12/1982
Health: Excellent
Languages: English
Afrikaans

EDUCATION

School: Rondebosch Boys High School, 1978 - 1982
School Certificate: Cape Senior Certificate, Full Matriculation Exemption
University: University of Cape Town (UCT), South Africa
Degrees: Ph.D. in archaeology (2000), BA (HONS) 1989,
and BA 1988

PROFESSIONAL ACCREDITATION & AFFILIATION

Professional member of the Association of Southern African Professional Archaeologists (ASAPA) since 1989, including the Cultural Resource Management section of the same association (ASAPA professional member # 097).

Accreditation:

- Principal Investigator for archaeozoology (specialist analysis), coastal & shell midden archaeology and Stone Age archaeology;
- Field Director for Colonial Period;
- Field Supervisor for Iron Age and Rock Art.

Honorary Research Associate of Iziko – South African Museum, Cape Town

PROFESSIONAL EMPLOYMENT

<u>Date</u>	<u>Employer</u>	<u>Description</u>
1989 - 1994	Prof. J.E. Parkington, UCT	Research Assistant
1990 – 1992	Prof. J.E. Parkington, UCT	Tutor for excavations
1991 & 1992	Dept. Archaeology, UCT	Tutor - Archaeology
1995 & 1996	Prof. A. Sillen, UCT	Research Assistant
1993 - 1999	Various scientists	Faunal analysis
1991 - 1999	Archaeology Contracts Office (UCT) Agency for CRM (J Kaplan)	Cultural Resource Management

1999 - 2004	Prof. C.W. Marean, State University of New York, Stony Brook, USA	Contracted researcher and Faunal analyst
2000 - 2001	Dr. C.S. Henshilwood, IZIKO Blombos Cave	Faunal analysis,
2003	Prof. Judith C. Sealy, UCT	Faunal analysis
2004 - 2006	Institute of Human Origins (IHO) Arizona State University, Tempe, USA	Co- Director & researcher, Pinnacle Point Site Complex Mossel Bay
2007 to present	self employed	Archaeological & Heritage Consultant
2013 to present	Point of Human Origins	Founder and owner – archaeo-tourism PPSC

EXPERIENCE:

Considerable fieldwork (survey, recording, mapping & excavation) and project experience in both archaeological research (Western Cape Province) and cultural resource management (CRM - Western, Eastern and Northern Cape Provinces of South Africa as well as Lesotho) spanning much of the Southern African prehistoric (Stone Age and Pastoralist) and historic (Colonial) periods.

CRM Project types include:

- Notification of Intent to Develop & accompanying Heritage Statements
- Archaeological specialist studies
- Heritage Impact Assessments
- Research & CRM archaeological excavations in Historic and Prehistoric sites

Development types:

- Single and multiple / complex residential & industrial
- Golf courses
- Nature reserve / game farm
- Solar and wind facilities
- Roads, walkways, railway lines, pipelines, powerlines
- Dams
- Mines

PUBLICATIONS & REPORTS

Book:

- Nilssen, Peter. 2011. Hunting or Scavenging in the Early and Middle Stone Ages of Africa – Experimental archaeology and reconstructing hominid strategies of carcass acquisition and butchery in the Upper Pleistocene and Plio-Pleistocene. VDM Verlag Dr. Muller GmbH & Co. KG (ISBN 978-3-639-37474-2)

Peer Review Publications:

- Nilssen, Peter and Craig Foster. 2017. The key to our future is buried in the past – philosophical thoughts on saving us from ourselves. *The Digging Stick* Vol 34, 1
- Antonieta Jerardino, Jonathan Kaplan, Rene Navarro and Peter Nilssen. 2016. Filling in the gaps and testing past scenarios on the Central West Coast: Hunter-gatherer subsistence and mobility at 'Deurspring 16' Shell Midden, Lamberts Bay, South Africa. *The South African Archaeological Bulletin* June 2016.
- McGrath, J.R., Cleghorn, N., Gennari, B., Henderson, S., Kyriacou, K., Nelson-Viljoen, C., Nilssen, P., Richardson, L., Shelton, C., Wilkins, J., & Maeran, C.W. 2015. The Pinnacle Point Shell Midden Complex: a Mid to Late Holocene Record of Later Stone Age Coastal Foraging Along the Southern Cape Coast of South Africa. *South African Archaeological Bulletin* 70 (202): 209–219.
- Abe, Y., C.W. Marean, P.J. Nilssen & D.J. Allen. 2014. Taphonomy–Edged, Incised, Hacking, and Impaling Traumas. *International Journal of Osteoarchaeology* 12(2):142 - 143 · January 2014

- Marean, C.W., Bar-Matthews, M., Fisher, E., Goldberg, P., Herries, A., Karkanas, P., Nilssen, P.J., Thomson, E. 2010. The stratigraphy of the Middle Stone Age sediments at Pinnacle Point Cave 13B (Mossel Bay, Western Cape Province, South Africa). *Journal of Human Evolution*, 59(3-4):234-55.
- Thalassa Matthews, Curtis Marean & Peter Nilssen 2009. Micromammals from the Middle Stone Age (92–167 ka) at Cave PP13B, Pinnacle Point, south coast, South Africa. *Palaeontologia Africana* (December 2009) 44: 112–120
- Miryam Bar-Matthews, Curtis Marean , Zenobia Jacobs , Panagiotis Karkanas , Erich Fisher , Andy Herries , Kyle Brown , Hope Williams , Jocelyn Bernatchez , Avner Ayalon , Peter Nilssen. 2010. A high resolution and continuous isotopic speleothem record of paleoclimate and paleoenvironment from 90 to 53 ka from Pinnacle Point on the south coast of South Africa. *Quaternary Science Reviews* 29(17–18):2131-2145.
- Marean, C. W., Thompson, E., Williams, H., Bernatchez J. Nilssen, P. J *et al* (2007) “Early Human use of Marine resources and pigments in South Africa during the Middle Pleistocene” *Nature*
- Marean, C. W., Nilssen, P. J., Brown, K., Jerardino, A., and D. Stnyder (2004) “Paleoanthropological Investigations of Middle Stone Age Sites at Pinnacle Point, Mossel Bay (South Africa): Archaeology and Hominid Remains from the 2000 Field Season.” *PaleoAnthropology*
- Marean, C.W., Bar-Matthews, M., Nilssen, P.J., Fisher, E., Herries, A., and Karkanas, P. 2006. Paleoclimatic context of the origins of modern humans in South Africa: Based on speleothems isotopic record. *Geochimica et Cosmochimica Acta* 70(18) DOI: 10.1016/j.gca.2006.06.788
- Yoshiko Abe, Curtis W. Marean, Peter J. Nilssen, Zelalem Assefa, and Elizabeth Stone 2002. “The analysis of cut marks on archaeofauna: a review and critique of quantification procedures, and a new image-analysis GIS approach.” *American Antiquity* 67:
- C.W. Marean, Y. Abe, P.J. Nilssen, and E. Stone 2001. “Estimating the minimum number of skeletal elements (MNE) in zooarchaeology: a review and a new image-analysis GIS approach.” *American Antiquity* 66:333-348.
- Jerardino, R. Navarro, and P. Nilssen, 2001. An approach to the study of Cape rock lobster (*Jasus lalandii*) exploitation in the past: morphometric equations for estimating carapace length from mandible sizes. *South African Journal of Science* 97:59-62.
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- Parkington, J., Nilssen, P., Reeler, C. and Henshilwood, C. 1992. Making sense of space at Dunefield Midden campsite, western Cape, South Africa. *Southern African Field Archaeology*. 1 (2): 63-71.

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