

COEGA INDUSTRIAL DEVELOPMENT ZONE: CULTURAL SENSITIVITY REPORT

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COEGA INDUSTRIAL DEVELOPMENT ZONE: CULTURAL SENSITIVITY REPORT

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SUMMARY

Proposal

The original proposal was to survey an area of 0,5 km around the Coega River estuary and both sides of the coastline at the river mouth. The coast on either side of the river mouth has never been surveyed for possible archaeological sites before. It was later requested that the full Coega Industrial Zone of about 10 000 ha be surveyed. However, a preliminary survey (Binneman & Webley 1996) has generated little archaeological and historical information for this area. Instead of wasting time and resources on an area already known to be of little cultural importance, it was decided to concentrate on the estuary and adjacent coastal region. A number of previously unknown archaeological sites were found close to the Coega River Mouth.

Review of draft report

CSIR appointed Dr J. Deacon from National Monuments Council to review the draft report. Comments on her review is included in Appendix 3.

The survey

Classification and evaluation of archaeological features are outlined in Appendix 1.

1. A literature survey indicated that a Pleistocene fossil bone accumulation was found during the late 1960s in limestone deposits some 3 km from the Coega estuary. The possibility exists that similar accumulations may be found elsewhere in the Coega IDZ. These accumulations, if they exist, are rare and are rated as of vital importance. They must not be destroyed.
2. Stone artefacts in secondary context were found in river gravels close to the Coega estuary. These are rated as low importance.
3. Archeological features, *in situ* shell middens and scatters of stone tools and other cultural material, mainly in secondary context, have been identified along the coast on the eastern side of the estuary. The shell middens are rated as important and should not be destroyed. Other cultural material is rate of low priority, but representative collections should be made.

Cultural sensitivity

Visibly the Coega Industrial Development Zone would appear to be of low cultural sensitivity and development may proceed if the following recommendations are followed by developers:

Recommendations

Guidelines and procedures for developers are outlined in Appendix 2.

Archaeologists should be notified at all times to investigate should archaeological features be found during development of the area.

1. Fossil bone remains found on the perimeter of the Coega Industrial Development Zone indicate that similar occurrences may be present inside the area but covered by dune sand and calcrete. If such remains are found archaeologists must be informed immediately so that they can investigate.
2. There are archaeological sites from 0.5 km east of the Coega River Mouth to the boundary of the Coega IDZ. These sites should be sampled or excavated if threatened by the development of the harbour.
3. If any accumulations of marine shell (shell middens), 1 m² and larger, are found elsewhere, they should be reported immediately to an archaeologist for investigation.
4. The dense vegetation cover over the area has prevented a comprehensive survey for archaeological sites. It is strongly recommended that archaeologists be notified and consulted as and when the development zones are released for development within the Coega IDZ.

General remarks

Legislation concerning palaeontological, archaeological and historical material

The National Monuments Act (Act No. 28 of 1969 amended) protects all palaeontological, archaeological and historical sites and material older than 50 years. It is an offense to destroy, damage, alter, remove from its original site, or excavate any such material without a permit from the National Monuments Council. If convicted of an offense in terms of the Act, a person could be liable for a fine of up to R10 000 or two years imprisonment, or both.

It must be emphasised that the conclusions and recommendations expressed in the cultural sensitivity survey of the Coega Industrial Zone are based on the visibility of cultural sites and may not therefore, reflect the true state of affairs. Many sites may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it gets destroyed. The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Monuments Act.

COEGA HARBOUR DEVELOPMENT: CULTURAL SENSITIVITY REPORT

Historical background

The Coega (or Koega) River was first mentioned by historical travellers in 1752. The name Coega is of Khoekhoen origin and means literally 'seacow' or hippopotamus (Nienaber & Raper 1977). In November 1776, Anders Sparrman found a community of Cochoqua Khoekhoen (remnants of the Cochoqua who had fled the Cape after their defeat in the second Khoekhoen-Dutch War one hundred years previously), living on the Coega River. They were caring for the stock of a Dutch burger. Nearby was a group of Gonaqua Khoekhoen, led by a captain named Tadi, who were also tending to the stock of a Dutch farmer.

Coega Kop itself is shown on maps dating back to 1834 (Port Elizabeth Museum). The 'kop' has twin heads, the one being quarried since the 1920s by SA Railways and Harbours for the development of the Port Elizabeth Harbour, the other being mined since the 1970s by a private company (Skead 1993). The 'kop' is reported to have been used as a navigation beacon by sailing ships wishing to enter Port Elizabeth harbour in the past, however, it is likely to disappear soon with intensive quarrying.

The salt pan behind Coega Kop (not the present locality of the salt works at the river estuary) was being mined for its salt as early as 1820. However, this salt pan is likely to have been destroyed with developments in the area. Furthermore, a map of 1851 was consulted and this indicated that the original road between Port Elizabeth and Grahamstown closely followed the present National road across the Coega River. The map of 1851 indicates the presence of a 'Junction Post' on the crossing. While Coetzee's (1995) definitive book on the forts of the Eastern Cape failed to indicate the presence of this military post, it is likely to represent one of Cradock/Somerset's temporary earthen fortifications established between 1812 and 1819 to protect the eastern frontier. This post, in all likelihood, no longer exists.

There are historical structures in the Coega Industrial Development Zone older than 50 years. However, our initial survey suggests that most of the old buildings have been badly maintained or vandalised by squatters and the Eastern Cape branch of the National Monuments Council has confirmed that there are no conservation-worthy buildings in the area.

Survey of the Coega estuary

1. River gravels

The gravels of old river terraces which line most of the Coega estuary contain stone tools (Fig. 1). Most of these date from the Middle Stone Age (125 000 - 30 000 years ago) and Later Stone Age (30 000 years ago to historical times), but occasional Earlier Stone Age (pre-date 250 000 years ago) handaxes are also found. There is no other archaeological or palaeontological material associated with the river gravels.

The river gravels are rated low priority sites (rated 1) because the archaeological material is in secondary context with no associated material. Some material may be collected, but the Albany Museum already houses a collection.

2. Coastline

River mouth

Coastal dunes and dense alien vegetation made it impossible to locate any archaeological sites in the immediate vicinity of the Coega River Mouth. There exists a strong possibility that there are shell middens (large accumulations of marine shell) buried under the dunes and vegetation.

Western side

Shell middens and the remains of at least 12 clay pots were reported by Rudner (1968) west of the Coega River Mouth. These sites could not be located during the investigation and are probably currently buried by dunes.

Eastern side

A survey of the coast starting a kilometre east of the Coega River Mouth to the Sunday's River Mouth was conducted previously (Binneman 1994) and the current survey was conducted to that point (Fig. 1). Archaeological features and material occur in the coastal dunes between this point and the previously surveyed area in a narrow strip between the inland vegetation and the coastline.

Evaluation of the archaeological remains on the eastern side

Area 1 (Fig. 1 & Appendix 1)

About half a kilometre east of the river mouth, situated on a calcrete ridge, are scatters of stone tools and remains of shell middens. The ridge is a few meters above the beach and exposed to the elements. The archaeological remains include:

1. A single small (some 5 m²) Later Stone Age *Donax serra* midden (Type 4), *in situ* with some quartzite stone tools (rated 3).
2. Scatters of fragmented shell and mainly Later Stone Age flaked cobbles and flakes and occasional Middle Stone Age tools in secondary context (Type 1). The presence of a Kabeljous Industry large segment suggests a date of younger than 4 000 BP for the LSA shell and stone tool scatters. A few Khoenkoe potsherds were found scattered around. The importance of these scatters are rated of low priority (rated 2).

Area 2

The area intermediate between Area 1 and 2 is rated 2 (low priority) and comprises occurrences and scatters (Types 1 & 2) of fragmented shell and stone tools, LSA and occasionally MSA as well as potsherds. The material is in secondary context, but a collection of diagnostic potsherds and a representative collection of stone tools can be made should development impose on this area.

Area 3

Area 3 is close to the boundary of the IDZ and is an area already identified for sand mining. There are between 8 and 10 small *Donax serra* shell middens (Type 4) closely situated near the boundary. These are rated 3 and should be sampled or excavated should development or mining impose on this area. In between the middens are occurrences and scatters (Type 1 & 2) of stone tools, mainly LSA and occasional

potsherds. These remains are rated 2 (low priority), but representative collections should be made if threatened by development.

Recommendations for the coastal archaeological features and material

The *Donax serra* middens in Areas 1 and 2 are important (rated 3) and should be sampled or excavated if the harbour development should reach this far east. Diagnostic potsherds should be collected and a representative sample of the LSA and MSA stone tools should also be made.

Extended Coega Industrial Development Zone

As mentioned in the introductory paragraph, the survey for archaeological and cultural sites was restricted to the Coega River estuary and adjacent coastline. The reason for not surveying the full Coega Industrial Area of 10 000 ha is that a preliminary survey had been undertaken of this area previously (Binneman & Webley 1996). A more comprehensive survey would be limited by the dense vegetation cover. Known sites of archaeological importance and interest are:

1. Fossil bone remains

Gess (1969) reported the occurrence of fossil bone remains and two Middle Stone Age stone tools some 3 km west of the estuary and 3 km south of Coega Kop. During his excavation he found bone in the surface limestone, but the bulk of the bone remains were found some 1-1,5 meters below the surface. He reported a large number and variety of bones, teeth and horn cores *strongly suggesting that they were deposited there by man*. The bone remains included warthog, leopard, hyena, rhinoceros and ten different antelope species. A radiocarbon date of greater than 37 000 years was obtained for the site.

It is unknown if there are any further remains in the vicinity of the Gess site. It is also unknown and impossible to establish at present if there are any similar accumulations in the IDZ. However, as most of the area marked for development comprises limestone deposits, it is possible that similar fossil bone accumulations may be found there.

This Pleistocene fossil bone accumulation and other possible similar accumulations in the IDZ are rated 4, and are of vital importance and should not be destroyed.

2. Stone artefacts

Near the town of Coega are extensive gravel terraces which contain very large numbers of flaked cobbles and other debris of stone tool production. Early Stone tools and handaxes were reported from Coega Kop in 1937 by Van Riet Lowe and handaxes were also collected previously from the banks of the Coega River (Albany Museum collections). During our preliminary survey of the area we noted scatters of Early Stone Age material in several localities. We are of the opinion that their distribution may extend over a considerable area.

The stone artefacts are in secondary context, and like the river gravels been exposed to large scale disturbance, i.e. roads, farming activities and other human development.

There is a collection of Early Stone Age artefacts from the Coega River gravels in the Albany Museum (Gess Coll. 61/36).

Recommendations for archaeological remains in the Coega IDZ

The fossil bone found by Gess indicates that similar accumulations may be found elsewhere in the IDZ. However, it would appear that the material is deeply buried under the limestone and not visible on the surface. These fossil bone accumulations are very important and should not be destroyed. They require proper investigation and removal by professional archaeologists. It is therefore recommended that archaeologists be consulted when specific development zones are released for development within this area.

Conclusions

Based on the visibility of cultural sites it would appear that the Coega Industrial Development Zone is of low cultural sensitivity and development may proceed.

No important archaeological sites were found inland of the coast, but the possibility exists that such sites may be buried under the sand. The important Pleistocene bone accumulation found in the limestone deposits close to the estuary suggests that similar occurrences may be located during construction work in the Coega Industrial Development Zone.

The old river terraces contain occurrences of Acheulian (Early Stone Age) and Middle Stone Age implements. However, they are no longer in primary context and they are spread over a wide area and are therefore not considered to be of major importance.

Shell middens and other archaeological remains relating to the San and Khoekhoen are found along the coastal margin and may be found up to five kilometres inland.

No significant historical remains have been located.

RECOMMENDATIONS

Definitions of archaeological features, material and procedures to follow when material are found during construction are outlined in Appendix 2 and Table 1.

1. Some of the archaeological features along the immediate coastline may be effected by the construction of the harbour development and it is recommended that they are sampled or excavated before construction work starts. This includes the visible shell middens in Area 1 and 2.

2. Archaeologists should be informed immediately if large accumulations of marine shell or fossil bone are uncovered (1 m² and larger). In such an event work must be stopped to allow archaeologists to excavate or collect the material.

3. It may be necessary to meet with the site manager before development starts to explain what archaeological remains may be encountered.
4. Archaeologists should be consulted as soon as development zones are released for development within the Coega Industrial Development Zone.

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TABLE 1. Conditions for Coega IDZ to be allowed to proceed

ISSUE	CONDITION	GUIDELINES	EST. COSTS	EST. LEAD TIME
1. Shell middens along the eastern side of the Coega River.	Must be sampled and excavated before construction starts.	Notify and consult archaeologists before construction starts.	<p>Costs depends on the size of the development and the number of features involved.</p> <p><u>Standard costs:</u> R1500 per day for excavating/sampling processing of material, analysis, report writing plus transport costs, packing material etc.</p> <p><u>Est. cost per feature:</u> R8 000</p>	<p>Time depends on the size of the area to be investigated and the size and number of features to be excavated/sampled.</p> <p><u>Approximately:</u> A day per shell midden.</p>
2. Fossil bone	Not to be destroyed. In the event that such accumulations are found during construction, work must be stopped immediately so that investigation can proceed.	Archaeologists must be notified and consulted before any work continues.	<p>Costs will depend on the size of the accumulation and the amount of material. Costs as above, with additional cost for the services of an archaeozoologist. Costs have to be established at the time of inspection.</p>	Time depends on the size of the accumulation and the amount of bone to be excavated/sampled. Time has to be established on site.
3. Buried sites which may be found during development	If any archaeological sites are found work must stop immediately.	Archaeologists must be notified and consulted before work may continue.	Costs will depend on the size and type of feature. Costs have to be established at the time of discovery.	Time depends on the size and type of the feature. Time has to be established on site.

APPENDIX 1

CLASSIFICATION OF ARCHAEOLOGICAL FEATURES

The following classification scheme was used to evaluate the type and importance of the archaeological features:

Type of features

Shell middens

1. Occurrence: few fragmented and whole shells and occasional cultural material and/or other food waste
2. Scatter: fragmented and whole shell spread over an area with cultural material and/or other food waste
3. Concentration/accumulation: shells 2-3 deep with cultural material and/or other food waste and/or features such as hearths and burials.
4. Shell midden proper: thick shell accumulation with individual occupation layering, cultural material and other food waste and/or features such as hearths and burials.

Stone artefacts

1. Primary context: *in situ*, isolated or in association with other archaeological material and/or features.
2. Secondary context: disturbed from its original position by natural or human forces isolated or in association with other archaeological material and/or features.

Sites can be divided into:

- (i). Small: $\pm 1-10 \text{ m}^2$
- (ii) Medium: $\pm 10-20 \text{ m}^2$
- (iii). Large: $\pm 20-50 \text{ m}^2$
- (iv). Mega: larger than 50 m^2

Occurrences can be:

1. Single
2. Concentrations
3. Small groups
4. Complexes

Rating of features

1. Minimum value/very low priority site.
2. Low priority, but sites may be sampled.
3. Important, should be sampled/excavated.
4. Of vital importance, should not be destroyed and should be conserved if at all possible. Must be excavated if threatened.

APPENDIX 2

IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL: guidelines and procedures for developers

1. Shell middens

Shell middens can be defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery and bone remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m² in extent, should be reported to an archaeologist.

2. Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. Frequently human remains are found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.

3. Fossil bone

Fossil bones may be found embedded in calcrete deposits at the site. Any concentrations of bones, whether fossilized or not, should be reported.

4. Stone artefacts

These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally, should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

APPENDIX 3: ARCHAEOLOGY SPECIAL REPORT: REPLY TO THE COMMENTS BY DR J. DEACON, NMC.

Reply to Dr J. Deacon

There are several 'misconceptions' in the report of Dr Deacon which we address below.

1. Survey

The survey was carried out following the conditions set out by the **General requirements for the SEA** which state under **6.6 Archaeological and cultural-historic aspects: Undertake a reconnaissance survey of the area to be impacted on by the port and IDZ and propose suitable mitigatory measures** (our emphasis).

In other words, we were required to establish the nature of the cultural features in the area as well as their location and importance - culturally speaking - to answer the question *Under what conditions should the Coega IDZ be allowed to proceed?*

In response to the observation by Dr Deacon that the full 10 000 ha was not surveyed in 'detail' we note:

The area under discussion is huge, densely vegetated and with few access roads. To survey this entire area on foot would cost an estimated R20 000,00. Large parts of this area have been surveyed in the past with little information being recovered. From this baseline information and from our professional background and experience of the area we feel that such our conclusion, that there are few important cultural sites, is justifiable.

The extent of the survey was discussed at length with the Eastern Cape coordinator, Dr Mike Cohen. It was then decided to concentrate on the estuary where we knew sites would be located. It was also decided that when site specific development takes place, detailed surveys and monitoring would take place. In this way all '*unique sites*' would be covered.

With regard to the use of the word 'unique' in Dr Deacon's report we note that the Oxford Dictionary defines the word unique to mean *the only one of its kind or having no like or equal or parallel*. Very few archaeological sites are therefore *unique* and we have not encountered any in our survey.

2. Identification and assessment of significance.

Dr Deacon notes with regard to the possible local, regional and national significance the fossil bone site and river gravels that this *has not been clearly stated in the SEA, but is implicit in the opinion that the Zone is of low cultural sensitivity*.

We reject the implicit observation that we have disregarded the possible significance of these features. The fossil bone sites and river gravels cannot be described as ***unique and unusual*** without further investigation. Furthermore, we stated explicitly on page 4 (and elsewhere) that *Based on the visibility of cultural sites ... Zone is of low cultural sensitivity..* Dr Deacon indicates concern regarding the fossil bone 'accumulations'. However, at present the exact locations of such accumulations, if they exist, is not known. They are only likely to be found once development starts. According to Gess (1962), the bulk of the bone was found at a depth of some 1-1.5 metres (4-5½ feet) below the surface. No trace of the fossil bone site reported by Gess (1962) has been found and it may well be situated under industrial development in the area.

Notwithstanding the above, we have made it abundantly clear in our report that there is a possibility that such features may exist and we have suggested appropriate measures (pages 1, 3 & 5). We have found no bone in the river gravels (it would be surprising if we did!) and it is stated clearly on page 4 that the stone tools are no longer in primary context. These river gravels have been ploughed over, built over and cleared for roads etc. Thus, there is nothing unique or unusual about them. The Albany Museum already houses a 'contextless' collection of material from the area.

With regard to the section on site recording and mapping: The detail required here was not, as far as we are concerned, required for this reconnaissance survey or included in the initial budget. The data is available, but from an ethical consideration this will not be made public until such a stage as it is required, i.e., when the area is finally designated for development. Dr Deacon is aware of the concerns of many archaeologists regarding the publication of the exact location of *unique and unusual* sites.

Site protection and management

This section is mainly a repeat of our report, except for the suggestion of a pamphlet to inform potential developers about possible archaeological sites. If a pamphlet is required in addition to the measures outlined in this report, it will be provided at extra cost. The suggestion of a public space, displays etc. is a good idea, but not required for this report and is premature at this stage.

We would further note that we are not the managers of cultural resources, that is the task of National Monuments Council and will be soon the task of the Eastern Cape Monuments and Heritage Council.