

ARCHAEOLOGICAL EXCAVATIONS AT BOBARTIA ROAD MIDDEN, ERF 4292 BETTYS BAY, CALEDON MAGISTERIAL DISTRICT, WESTERN CAPE: INTERIM REPORT

Required under Section 35 of the National Heritage Resources Act (No. 25 of 1999).

Report for:

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EXECUTIVE SUMMARY

ASHA Consulting (Pty) Ltd was appointed by TN Consulting to conduct archaeological mitigation excavations in a shell midden discovered accidentally during construction work on erf 4292, Bettys Bay. Construction is presently on hold due to the issuing by Heritage Western Cape of a stop-works order. The site is now known as Bobartia Road Midden and lies in Bobartia Road approximately 200 to 220 m from the rocky shoreline.

Archaeological excavations have been carried out in two areas of the site, both within the footprint of the house. The western excavation (7.6 m²) revealed a sequence extending up to 2000 years ago (because in South Africa indigenous pottery is less than 2000 years old) but with the uppermost deposits removed by the builders. Cultural material included much pottery in the upper two-thirds of the deposit with far less below this, while stone artefacts, ostrich eggshell beads, *Glycymeris* pendants and *Donax* scrapers were more frequent lower down. Animal bones were present throughout. The eastern excavation captured a slightly shallower sequence of deposits because more was previously removed from the surface. The earliest occupation here is not likely to be any older than in the west. The eastern excavation was smaller (2.5 m²) but this is offset by the very high density of cultural materials in the lower levels of this area. Pottery also occurred throughout the depth in this area. Due to the extensive disturbance to the shell midden, a grading of 3B may be proposed.

Because there are likely to be further significant deposits on erf 4292 outside of the house footprint, it is suggested that Heritage Western Cape explore the possibility of a heritage agreement with the owner of the property. This will ensure that at least a part of the midden still lying on erf 4292 is protected for future research, while less significant areas may be further developed (for example for a swimming pool).

For the following reasons it is recommended that HWC lift the stop-works order and allow construction of the house to continue:

- Archaeological mitigation is costly and any further work would render financially unfeasible what is only a small single residential development;
- Further delays would result in further loss of work for the construction company which is small and takes on only a single project at a time (at present the entire crew is awaiting resumption of this project);
- Although covering a smaller area than originally recommended, the archaeological mitigation carried out to date has captured a good sample of two areas of this very large shell midden; and
- The proposed Heritage Agreement, if enacted, would go a long way towards protecting a further significant area of the shell midden for future research; and
- The owner of the property should be aware of the possibility of unearthing human burials when digging holes in the future. Should any be located then they should be immediately reported to HWC and the bones left in place for inspection and removal by an archaeologist.

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1 INTRODUCTION

ASHA Consulting (Pty) Ltd was appointed by TN Consulting to conduct archaeological excavations in a shell midden discovered accidentally during construction work on erf 4292, Bettys Bay (Figure 1). The site lies in Bobartia Road approximately 200 to 220 m from the rocky shoreline (Figure 2).



Figure 1: Map showing the location of the site (red star) in the southern part of Bettys Bay.

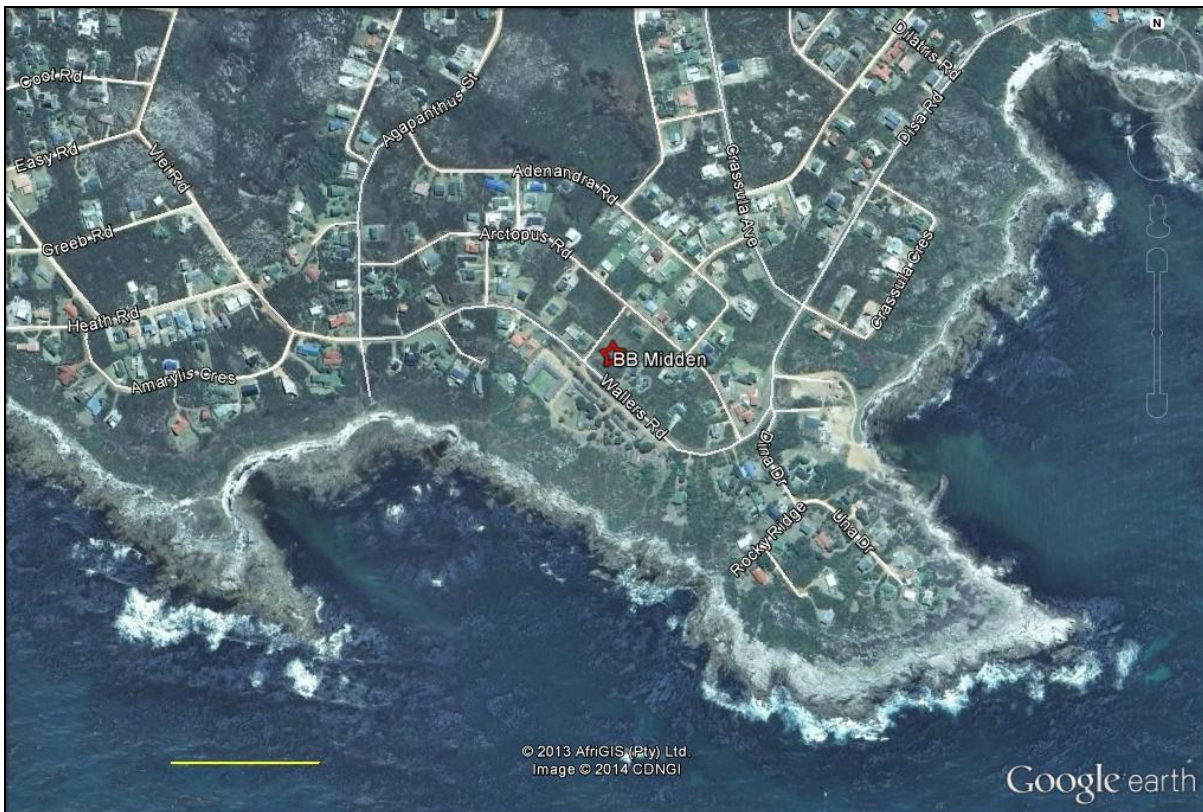


Figure 2: Aerial view of the southern part of Bettys Bay showing the position of the site.

The shell midden was discovered during excavation of the foundation trenches for a house. This was reported to Heritage Western Cape (HWC) and on 3rd February 2014 a stop works order was issued in terms of S.38(5)(a). This order may only be lifted once adequate archaeological mitigation has been completed. An initial archaeological testing report was produced and this suggested that approximately 18 m² of the midden should be excavated focusing on two areas (Orton 2013). This recommendation was upheld by HWC in their letter of 12th march 2014.

1.1 Project description

The project underway at erf 4292, Bettys Bay involves the construction of a single residential dwelling.

1.2 Scope and purpose of the report

This report aims to describe the work carried out at the site with a brief description of the findings. It will be evaluated by Heritage Western Cape such that the stop works order may be lifted. A final excavation report will be compiled once all the excavated material has been analysed.

1.3 The author

Dr Jayson Orton has an MA (UCT, 2004) and a D.Phil (Oxford, UK, 2013), both in archaeology, and has been conducting Heritage Impact Assessments in the Western Cape and Northern Cape provinces of South Africa since 2004. He has also conducted research on aspects of the Later Stone Age in these provinces and published widely on the topic. He has Principal Investigator

accreditation with the Association of Southern African Professional Archaeologists (ASAPA) CRM section (Member #233).

ASHA Consulting (Pty) Ltd and its consultants have no financial or other interest in the proposed development and will derive no benefits other than fair remuneration for consulting services provided.

2 HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources as follows:

- Section 34: structures older than 60 years;
- Section 35: palaeontological, prehistoric and historical material (including ruins) more than 100 years old;
- Section 36: graves and human remains older than 60 years and located outside of a formal cemetery administered by a local authority; and
- Section 37: public monuments and memorials.

In terms of the present project, it is Section 35 that is of concern and under which the test excavations are required. Following Section 2, the definition applicable to archaeology is as follows:

- Archaeological material: 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 10m 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, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), 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”; and d) “features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found”;

3 METHODS

3.1 Literature survey

A survey of available literature was carried out to assess the local archaeological context of the site. This literature included published material and unpublished commercial reports.

3.2 Fieldwork

Excavations were carried out between the 13th and 26th March 2014 with a total of 10 days spent on site during this time. During the initial seven days most of the excavated material was sorted on

site but some bulks were retained for later sorting. Sorting on site allowed some characterisation of the archaeological sequence through identification of the artefacts and food remains encountered. During the final three day excavation focus was placed on simply excavating as many squares as possible in order to have the material available for future sorting and analysis. All excavation followed natural stratigraphic horizons, although in some cases arbitrary divisions were made within thicker horizons. All sieving was on a 3 mm sieve.

No analysis has been undertaken as yet – this will be included within the final permit report.

3.3 Constraints

This project was carried out on behalf of a private land owner seeking to construct a single dwelling. The property was originally surveyed in 1971 and approved by the Surveyor General on 13th June 1972 (see General Plan No. 8268). With the legislation of today the developer carrying out the original subdivision would have been required to carry out an Environmental Impact Assessment which would have incorporated a Heritage Impact Assessment. The latter should then have identified the present site as sensitive and requiring mitigation. Because the subdivision happened so long ago, well before the advent of modern environmental (NEMA) and heritage (NHRA) legislation, no impact assessment was carried out. This has meant that, with the discovery of the Bobartia Road Midden, under South African law the private land owner is required to carry the expense of the mitigation.

From the outset this was problematic and the initial budget presented problems of viability of the entire project for the owner. This led to downwards revision of the budget and less time and staff available on site. Due to both the extreme density of shell in the upper layers and to rain on some days, the excavation proceeded more slowly than anticipated and it was only possible to excavate about half of the originally suggested number of square metres. Further discussion on the way forward in this regard is presented at the end of this report.

4 PHYSICAL ENVIRONMENTAL CONTEXT

4.1 Site context

The site is within a partly developed residential area in the southern part of Bettys Bay.

4.2 Site description

The site had already been cleared and foundation trenches excavated prior to the start of mitigation (Figure 3). These trenches had enabled an earlier evaluation of the site and allowed decisions to be made as to where to site mitigation excavations (Orton 2013). The upper part of the shell midden, perhaps 10 to 15 cm worth, had been removed during site preparation by the builders, although it was noted that in the far eastern part of the site there had been a higher mound of deposit from which up to 35 cm had been removed (Figure 4).

Although shell midden was present throughout the foundation excavations, the trenches revealed the densest parts of the midden to be towards the east which is where excavation was focused.

Figure 5 shows this area once the spoil piles had been removed and with the western excavation already underway.



Figure 3: View of the site looking from Bobartia Road towards the southeast. The house in picture is on the plot behind erf 4292.

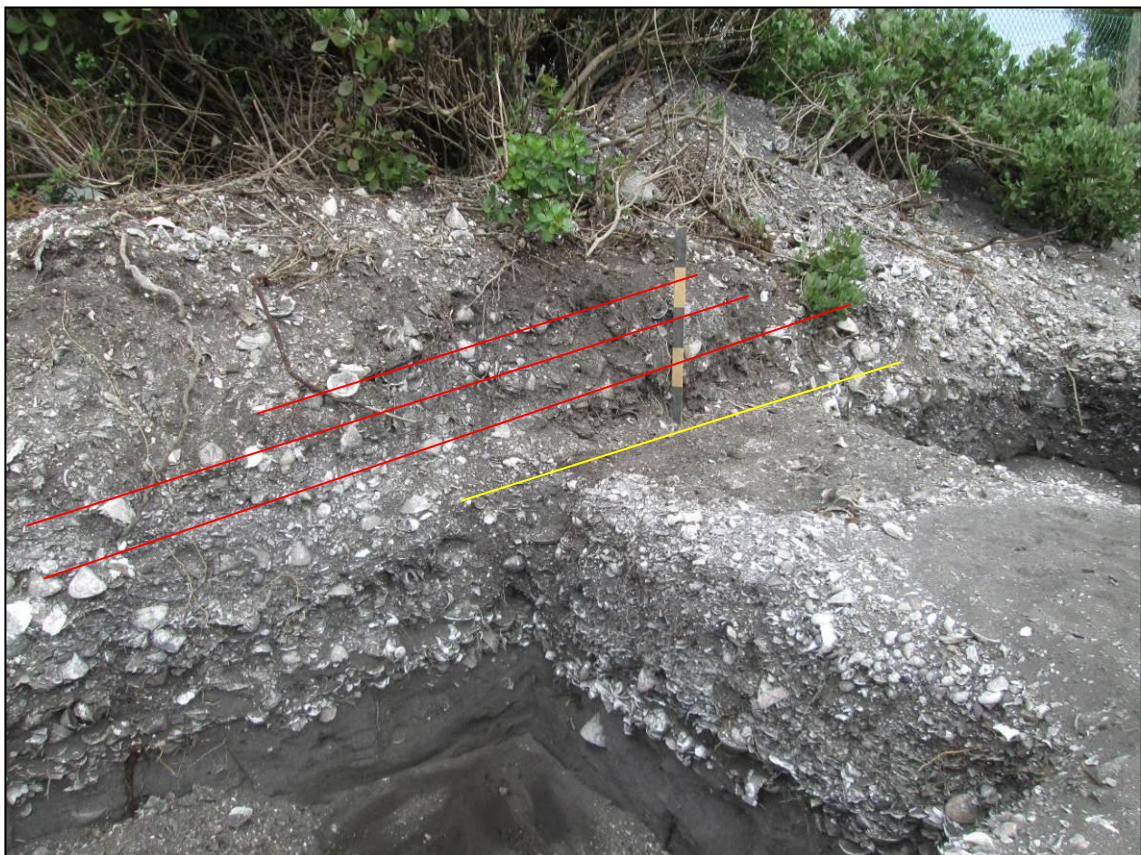


Figure 4: View of the easternmost part of the erf showing 50 cm of shell midden below the cleared surface (represented by the yellow line) and up to 35 cm of midden in a mound above the cleared surface (represented by the red lines showing approximate strata). Material above the three red lines is builders' spoils.

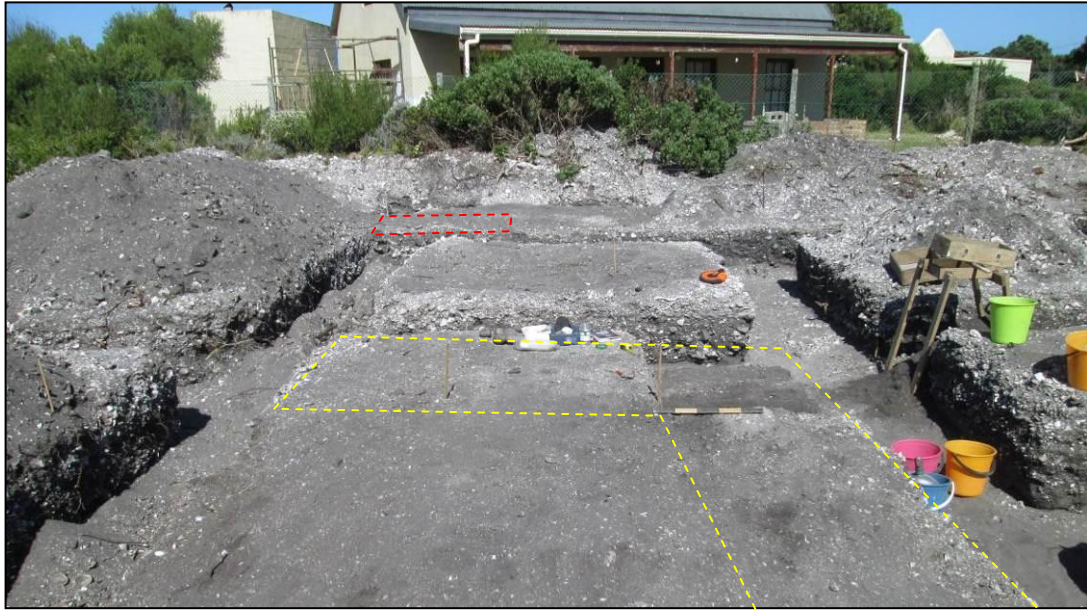


Figure 5: View towards the southeast of the area in which archaeological mitigation was undertaken. The western excavation is just underway (yellow polygon), while the eastern excavation was located in the furthest clear area (red polygon).

5 ARCHAEOLOGICAL CONTEXT

This section of the report establishes what is already known about archaeological heritage resources in the vicinity of the study area. What is found during the test excavations may then be compared with what is already known in order to gain an improved understanding of the significance of the newly reported resources.

A number of shell middens were documented in the vicinity of Otter Road some 3.4 km to the northeast of the study site. These sites were generally found to be in the region of half a metre deep and to contain low densities of archaeological material besides shell (Yates 1995). A few stone artefacts of quartzite, quartz and silcrete were seen along with some pottery. Small sampling excavations at these sites revealed much the same as was noted during the initial survey (Hart 1996). Significant shell middens have also been found 300 m east of the study site near Stoney Point. One lies just south of Crassula Crescent but the location of the other is unclear (Kaplan 2000). No sampling of these sites has been carried out. At the north end of Crassula Crescent several more middens and some graves were located (Orton *et al.* 2005), but these too remain *in situ*. Kaplan (2007) located a small deposit beneath a boulder within the admiralty zone but he gives no indication of where in Bettys Bay this site lay.

One proper excavation has been conducted in Bettys Bay. This occurred in about 1990 and was not formally reported. However, the excavation revealed a rich cultural assemblage with many stone artefacts, including retouched pieces, indicating ages greater than 2000 years for much of the deposit. There was also much animal bone (D. Halkett, pers. comm. 2014). This is the only meaningful excavation to have been carried out in the area.

Smith (1981) presents a map showing the locations of many shell middens along this stretch of coastline. This is repeated as Figure 6. Despite the very large number of sites known to exist, there

have been very few excavations and no doubt many sites have been lost under development of the holiday villages in the area.

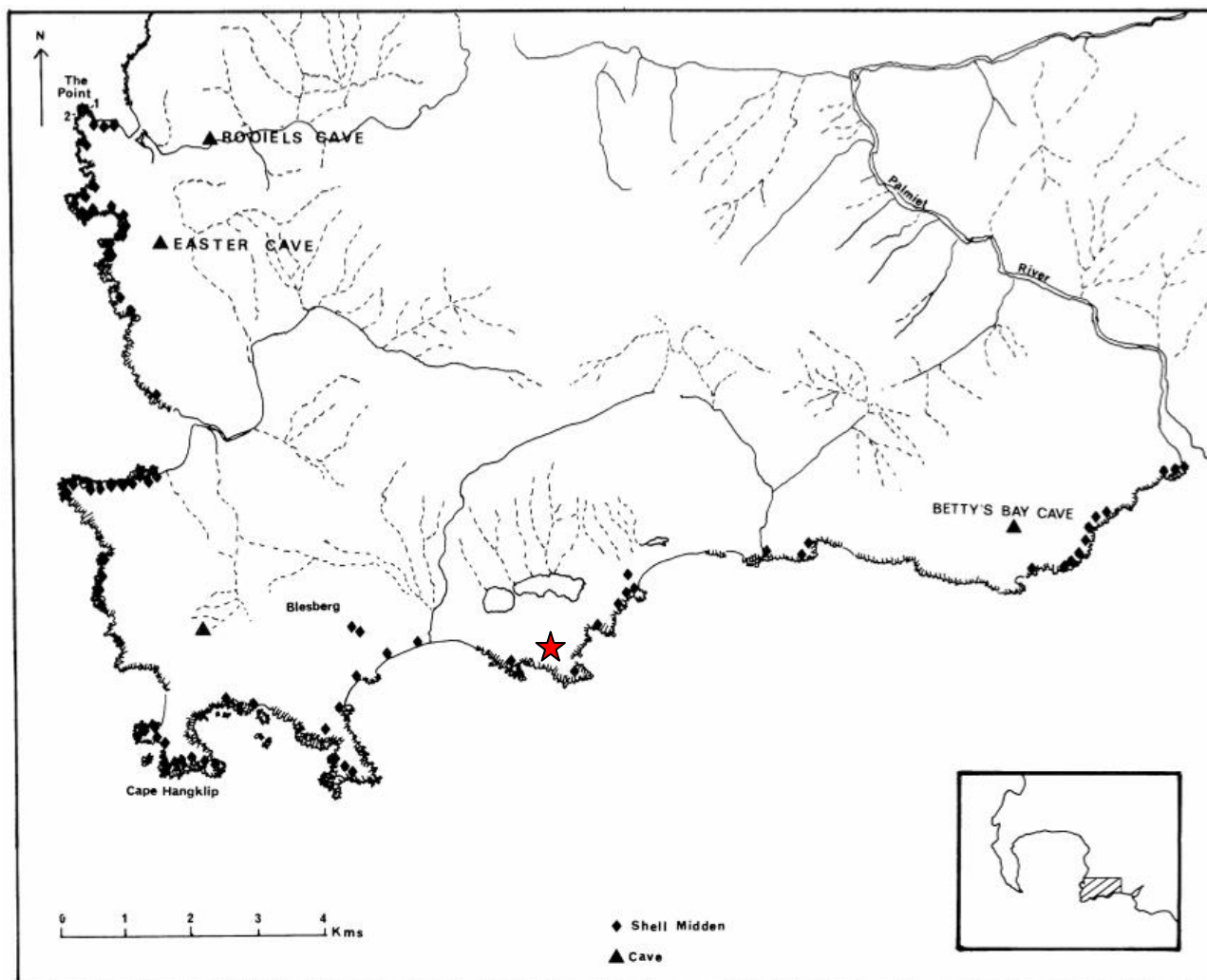


Figure 6: Archaeological sites mapped along the coast between Rooi Els and Bettys Bay (source: Smith 1981: fig. 1). The red star indicates the position of the current study area, erf 4292, Bettys Bay.

A little further afield, a cave at Rooi Els has been excavated (Smith 1981). The deposits revealed a deep late Holocene stratigraphy containing stone artefacts, bone tools, ostrich eggshell beads and fragments (some decorated) and a single *Donax* scraper. The stone artefacts (which included backed bladelets and scrapers) supported a mid- to late Holocene occupation, although a date from the very base of the excavation yielded a late Pleistocene age (Smith 1981). Avery (1981) reports on the extensive use of birds in the prehistoric diet of the cave inhabitants. Their bones were also used for making pointed tools and beads. Unfortunately the site had previously been excavated in the 1921 and 1922 when much of the deposit was stripped out along with a large number of human burials (see appendices in Smith 1981).

In general, most south coast excavation projects have been focused on cave sites, but in recent years a number of open sites have been excavated (e.g. Henshilwood 2008; Hine 2008; Orton 2012). These compliment the relatively richer observations made in the caves and contribute greatly to our understanding of prehistoric life along the south coast.

6 FINDINGS

Once excavation began, it became apparent that the process would be much slower than anticipated. This was due largely to two factors: (1) the upper third of the deposit in the western excavation was comprised of extremely well compacted and fragmented shell that was very time-consuming to excavate, and (2) rain made the deposits difficult to process on some days. In addition, there were some layers with very high densities of fish bones that dramatically slowed the sorting process. As a result, the excavated area is not as large as was initially required. This section describes the excavations carried out and provides a brief description of some of the finds. The sorting and analysis will be very time consuming and will be carried out during the coming months with the data included in a final permit report to be produced once everything has been completed.

Figure 7 shows a plan of the proposed house along with the areas proposed for mitigation and the approximate areas mitigated. The two excavations are referred to as the Western Excavation and the Eastern Excavation. Excavation north is treated as being in the direction of the north-eastern boundary of erf 4292.

6.1 Western excavation

In this area 7.1 m² has been excavated (Figure 8). Thirteen stratigraphic layers were identified and removed separately over a depth of about 0.7 m (Figure 9). These layers can be grouped to form five primary 'members' as described in Table 1. Figure 10 shows a section photograph.

Table 1: Description of the deposits and cultural artefacts in the Western Excavation at Bobartia Road Midden.

Member	Excavation layers	General description of deposits and cultural content
1	LFS	Loose Fragmented Shell (LFS) that may be loose from disturbance but seems more likely to represent the remains of a layer mostly removed by the builders. The surface was rigorously cleaned before excavation began in order to ensure that only in context material was obtained. A thin ash lens was noted in the northern part of squares K8 and L8 at the very base of LFS – it was too thin to excavate separately (Figure 11).
2	CFS CFS2 CFS3 CLS	Three layers of Compact Fragmented Shell (CFS) followed by a layer of Compact Large Shell (CLS). The CFS material was very tightly packed (Figure 12) and time-consuming to excavate. In reality it probably represents one extensive and intensive occupation event. Many bones were present and, due to their moisture content, these frequently broke while trying to lever out individual shell fragments. Seal bones were notable. One very large bone, however, turned out to be the mandible of a hippopotamus (Figure 13). The base of this member is marked by a layer of larger shell fragments that were still tightly packed. Presumably the crushing of the overlying material was due to intensive occupation of the midden. Much pottery was present (Figure 14) along with occasional beads, several bone tools (mostly points)

		and stone artefacts made from locally obtained quartzite. Two unusual finds in this member were a complete bored stone (Figure 15) and a probably once complete ostrich eggshell (Figure 16). The latter may well have been a water flask, although no opening was noted during collection of the large number of fragments. A fragment of another bored stone was also found.
3	AAS LDS LDS2 LDS3	The uppermost layer in this member, Ash and Shell (AAS), was restricted to the westernmost part of square M8 and no doubt represents an intense burning episode. The ash was very thick (c. 4-5 cm). Beneath this and CLS a set of Less Dense Shell (LDS) layers were encountered. The shell in these layers was far less fragmented than in the overlying Member 2. Some pottery was still present along with occasional beads, bone tools (Figure 17 & 18) and stone artefacts in quartzite and quartz, the latter including a scraper. A complete lower grindstone with a single groove on each side was located within LDS (Figure 19).
4	SRS SP SRS2	The lowest two members were characterised by low density middens of large shell fragments and whole shells along with large numbers of unmodified rocks. This led to the name Sand Rock Shell (SRS) for the excavation layers. In part of one square there was a lens of sand with very little shell – Sandy Patch (SP) – but this did not extend far. This was likely just an accumulation of sand in a slight depression between the midden layers. Rare potsherds were noted in this member, while stone artefacts of quartz became more common. Beads and <i>Glycymerus</i> pendants were noted.
5	SRS3 SRS4	This member was very similar to Member 4 with SRS3 being a thick layer of shell and SRS4 being the remaining shells pressed into the basal sand. In places there were clusters of shell that were probably the result of shells dropping into mole burrows that passed beneath the midden. This member contained larger numbers of quartz artefacts than above and hardly any in quartzite. A fragment of a lower grindstone with grooves on both faces was found in SRS4. Beads and <i>Glycymerus</i> pendants were present and large numbers of <i>Donax</i> scrapers were found. The latter are scrapers made on the wide curved edge of the shells of the white sand mussel. A small amount of pottery was found in these oldest layers.

A shell bulk sample was retained from the south-eastern quadrant of square J7 (J7SE). This is a 0.25 m² column sample which was deemed to be large enough because of the great density of shell in the midden. In addition, measurable limpets, whelks and *Turbo* operculae were collected from all members in square K8 and from Members 1 to 3 in square J8. Measurable shell was not collected from the lower two members in J8 because the J7SE shell bulks were deemed to have provided a very large sample of measurable shells for these layers. Marine shell samples were taken for radiocarbon dating from time to time as deemed necessary. In this regard single *Cymbula tabularis* and *Haliotis midae* shells were targeted because use of a single shell provides the equivalent of an accelerator mass spectrometry (AMS) date.

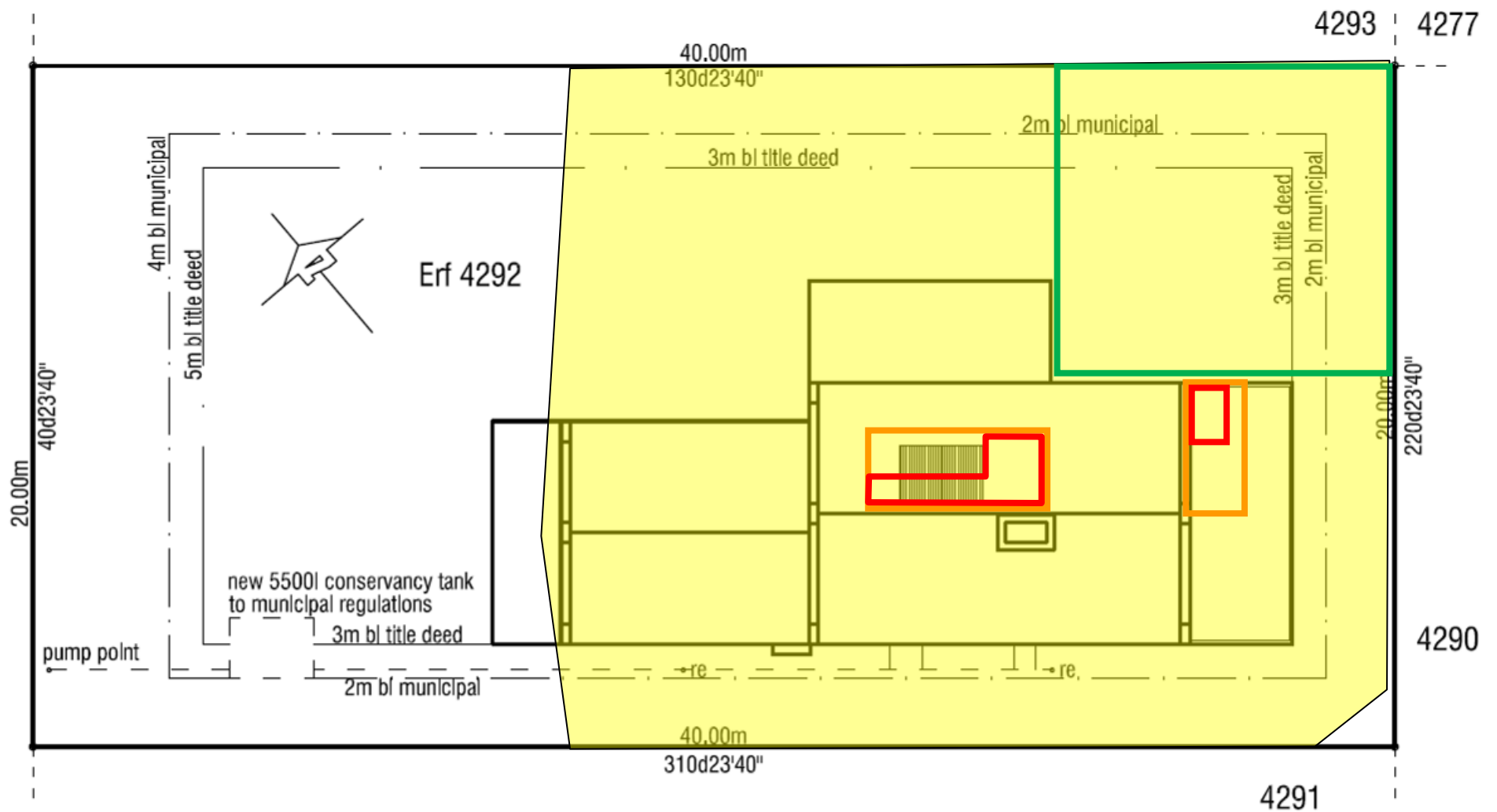


Figure 7: Architect's plan of the proposed house with the location of the shell midden (yellow shading) and the two areas proposed for mitigation excavations (orange rectangles) overlaid. The red polygons indicate the approximate areas that have been fully excavated and the green one the area proposed for a heritage agreement (see below).

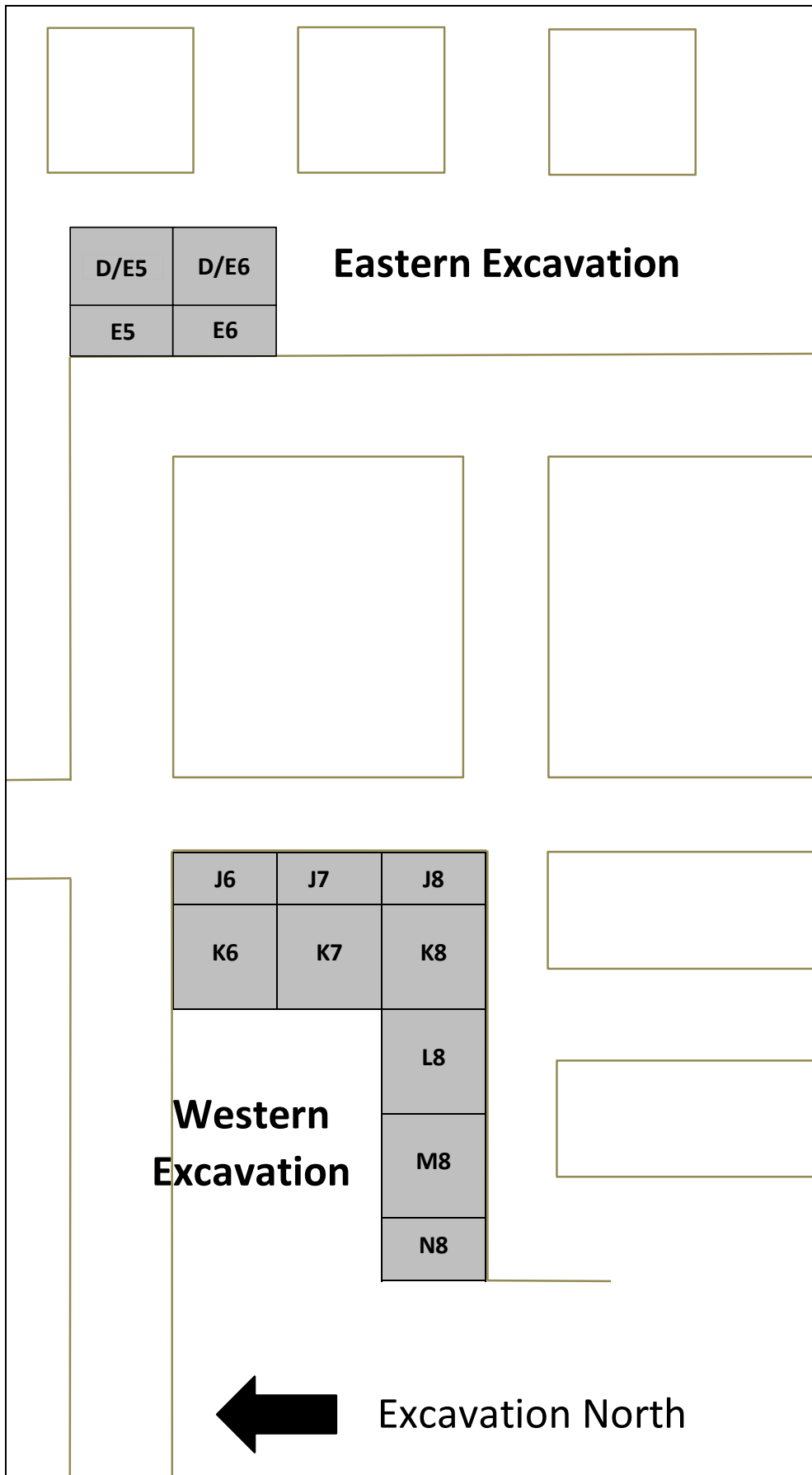


Figure 8: Plan of the excavation are (grey shaded squares) in relation to the already excavated house foundations (thin grey lines).

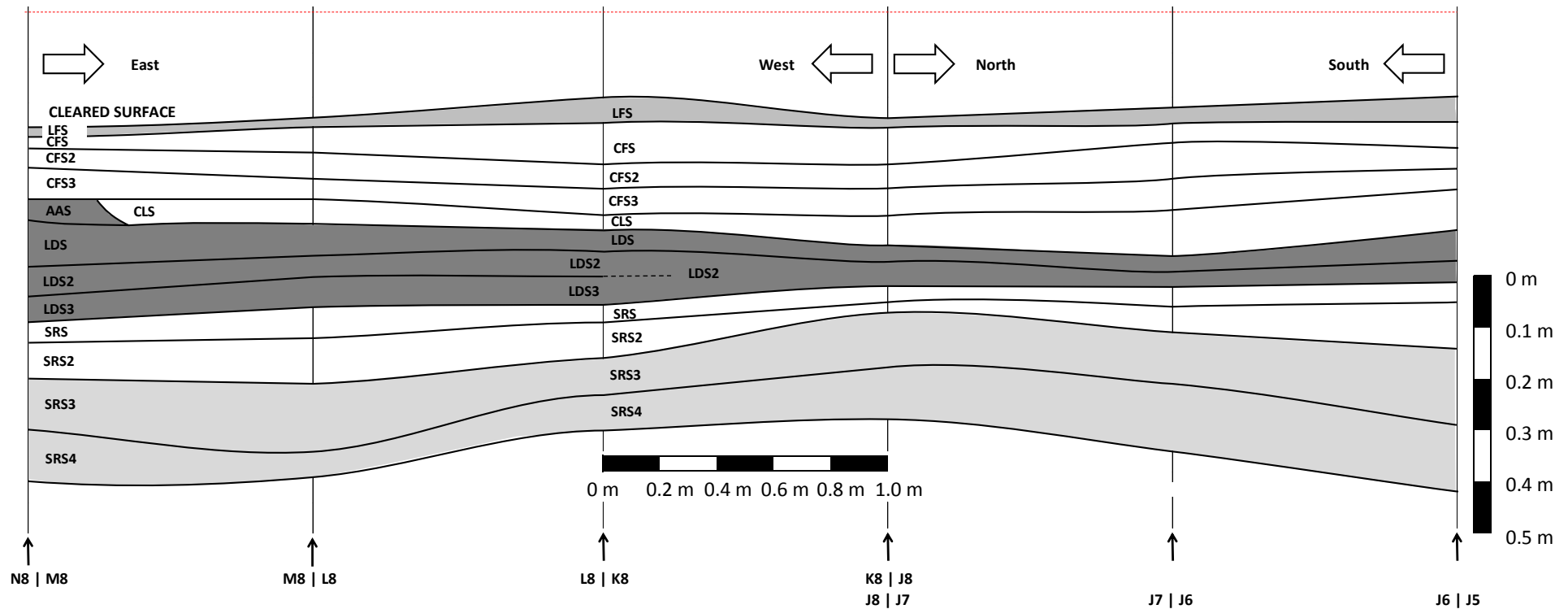


Figure 9: Section drawing through the excavated deposits in the western excavation. The three columns on the left run west to east, while the two on the right wrap around the corner to run south to north. The vertical scale is exaggerated for clarity to be double the horizontal scale as indicated. The shading indicates the suggested grouping of layers into 'members', with the uppermost one having been truncated by the builders.

Animal bones were abundant in the site. By number, the most frequent animal was fish. However, the bones of birds, seals, small bovids, larger bovids, snakes and occasional other small animals and micromammals were also recovered.



Figure 10: Photograph of the section of squares L8/L7 and K8/K7 looking north. The divisions between the members are marked by the white dashed lines, while the red line is the current surface from which excavation commenced. The scale bar is 0.5 m long.



Figure 11: Close-up photograph of the thin ashy hearth lens in the K8/L8 section.



Figure 12: Close-up photograph of the CFS deposits showing the finely fragmented and highly compacted shell.



Figure 13: Fragment of the mandible of a hippopotamus from layer 'CFS3'. The black section of the scale bar is 10 cm long.



Figure 14: A decorated pot sherd – the only one from the excavation – found in CFS.



Figure 15: The bored stone found in CFS3.



Figure 16: View of the ostrich eggshell recovered from CFS3 in square J8. Scale in cm. The section at the top of the photograph is from the builders' trenches.



Figure 17: Bird bone tube from layer 'LDS'.



Figure 18: Bone point from layer 'LDS'.



Figure 19: View of square K8 (left) and the remaining (northern) part of J8 with the grooved lower grindstone visible. Scale bar is 0.5 m long.

6.2 Eastern excavation

In this area 2.5 m² has been excavated. The excavation began in square E5 where a 0.5 by 1.0 m area was excavated initially to better test these deposits. Since this excavation did not coincide with grid boundaries a further 0.75 by 1.0 m area that overlapped squares D5 and E5 was excavated towards the east to bring the eastern section to the midline of the D-row (Figure 8). Eight horizontally bedded stratigraphic layers were identified and removed separately over a depth of about 0.45 m (Figure 20). The deposits were largely similar in character throughout except that a large area of burnt and heavily fragmented shell was noted in layers ‘Dahl’ and ‘Eggs’. Based on this, and for the purposes of analysis, grouping into members can be suggested as described in Table 2. However, this may well be revised following analysis of the excavated materials. Figure 21 shows a section photograph. In general the layers were not visible in section since the deposits are not strongly variable. However, many of the identified layers had clear bases that could be easily followed during excavation.

Table 2: Description of the deposits and cultural artefacts in the Eastern Excavation at Bobartia Road Midden.

Member	Excavation layers	General description of deposits and cultural content
1	Apple Apple A Apple B Banana Chilli	Horizontally bedded layers of large and small shell fragments with some whole shells (mainly <i>S. argenvillei</i>). The shell was not heavily compacted and was relatively easy to excavate. Many quartz artefacts were noted and ostrich eggshell beads were present. Occasional fragments of pottery were noted during sorting.

2	Dahl Eggs	Similar deposits to above but with <i>S. argenvillei</i> becoming more prominent in excavation and <i>T. sarmaticus</i> less so. Dahl was a thick shell midden, while the shell in Eggs became slightly less dense. A large area of burnt and heavily fragmented shell occurred in the southern half of the two excavated squares and charcoal fragments were notable. Fish bones were abundant, particularly at the base of Eggs where they seemed to lie within a sandier parting in the northern half of the excavated area. Quartz artefacts were abundant and ostrich eggshell beads were found. Figure 22 shows a selection of the finds from layer 'Eggs'. Pottery is present in these layers.
3	Figs Garlic	'Figs' was a very thick layer of quite sandy but still shell-supported shell midden. <i>S. argenvillei</i> appears to dominate visually with far less <i>T. sarmaticus</i> . 'Garlic' had similar content but had lower density shell and was sand-supported. Quartz artefacts and <i>Donax serra</i> shell scrapers were notable. Ostrich eggshell beads and <i>Nassarius kraussianus</i> shell beads were present (Figure 23) and one pendent made on a whelk was found (Figure 24). <i>Nassarius kraussianus</i> are estuarine shells that live in open estuaries. Pottery was again present. Bone tools were noted, including one spatulate tool and one broken link shaft.

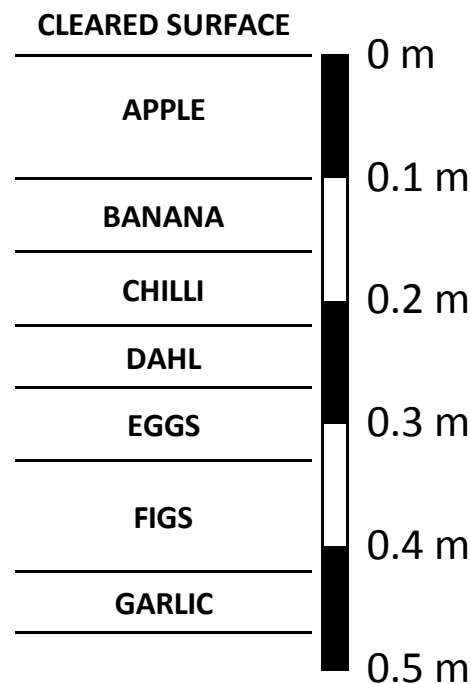


Figure 20: Schematic section through the deposits in the eastern excavation. No appreciable slope was noticed in any of the layers.



Figure 21: Photograph of the E5/E6 section. The white dashed lines indicate the excavated layers, while the red line shows the current surface from which excavation commenced. The scale bar is 0.5 m long.



Figure 22: Selection of finds from layer 'Eggs' in the Eastern Excavation. A: quartzite flakes; B: two ochre fragments, C: silcrete bladelet; D: quartz flaked artefacts; E: quartzite pebble grindstone and two cobble fragments used for grinding before they broke; F: Donax serra shell scraper; G: ostrich eggshell beads; H: Nassarius kraussianus shell bead; I: fish bones; J: four fish jaws; K: mammal and bird bones; and L: small bovid mandible.



Figure 23: *Nassarius kraussianus* shell beads (top row) and ostrich eggshell beads from layer 'Garlic' in the eastern excavation.



Figure 24: Pendent found in layer 'FIGS B' and made on a whelk by cutting a whole in its side.

6.3 Other finds

In addition to the excavations, certain surface finds were collected from the builders' spoils. Stone artefacts were ignored but all pottery and worked bone was collected, along with occasional other items such as two antelope horn cores.

The pottery included two further decorated rim sherds (Figure 25), both from the south/south-eastern part of the property, and a fragment of what looks like a lug (Figure 26). The two decorated sherds have a similar design but are different from the one recovered from the excavation. Rudner's (1968) collection of pots from the area included a partially reconstructed one with sub-horizontal incised lines and also two decorated rim sherds which, from his illustration

(fig. XXXVII: 67 & 68), appear to be very similar to those illustrated in Figure 25 here. Being a buried site, we can be confident that Rudner did not remove any sherds from this site.

A number of bone artefacts were found on the spoil heaps (Figure 27). These included several spatulate-type tools with broad, flat surfaces, along with a single sharp point and a ringed and snapped bird bone for making beads. Other examples of all of these were recovered from the excavated deposits.



Figure 25: Two decorated rim sherds collected from the builders' spoil heaps. Scale in 5 and 10 mm divisions.



Figure 26: Part of a pot lug from the builders' spoils. Scale in 5 and 10 mm divisions.



Figure 27: Worked bone from the builders' spoils. Five are spatulate tools, while a bone point lies to their right. On the far right is a bird limb bone that has been ringed and snapped at its upper end for the purpose of making beads.

Four bottle bases were noted in the builders' spoils in the central part of the erf (Figures 28 to 31). One is marked "Talana 43" on its base. This was made by the company 'Talana', probably during

the mid-20th century. In one part of the builders' trenches there were some rusted iron fragments and 20th century building rubble that, together with the bottles, indicate some earlier historical use of the site. Examination of the earliest aerial photography of the area – 1937 – shows nothing in the vicinity of the site, although the historical whaling station was just 200 m to the east (Figure 32). The next available aerial photograph – 1961 – is taken from a far greater altitude resulting in an unclear image. However, it still shows no obvious signs of development over the site, although the westernmost part of the village had its first gravel streets already laid out. In any case, the materials are of twentieth century origin and of no archaeological concern.



L-R: Figure 28: Bottle base embossed with “KXZO 12”. **Figure 29:** Plain brown bottle base. **Figure 30:** Clear bottle base. **Figure 31:** Brown bottle base with “Talana 43” embossed on it.



Figure 32: 1937 aerial view of the study area superimposed on Google Earth to indicate the position of the site

7 A NOTE ON BURIALS

It is perhaps surprising that no human burials have yet been encountered during the excavation of the foundation trenches on erf 4292 or during the ten days of archaeological excavation. Burials are often found in open shell middens, although on the south coast cave sites such as Rooi Els Cave (Smith 1981) and Matjies River Rock Shelter (Dreyer 1933; Hoffman 1958; Louw 1960) are known to contain particularly high numbers of burials. Noetzie Midden, however, shows that multiple human burials are also to be found in open middens (Orton & Halkett 2007). It is quite possible that one or more burials might be present within the remaining extent of the midden and a careful watch should be kept for human bones during the remainder of the work on site.

8 Discussion

8.1 The site

The Bobartia Road Midden is a large shell midden covering an estimated 1800 m². The excavations described here have captured good samples of this midden from two strongly contrasting areas that were initially deemed likely to be the most valuable – both produced far more cultural material than expected. They indicate that different things happened on different parts of the midden and that the altitude of the midden surface was variable, most likely based on the undulating surface of the underlying dunes. Despite the fact that its base is higher than in the western excavation, the eastern excavation seems to contain mostly older deposits. It is also located closer to the centre of the midden, perhaps indicating that the original occupation was located on a slightly elevated dune. Much more deposit was removed from the surface above the eastern excavation by the builders with the result that most of the pottery period is missing. However, in the west we have a strong pottery period occupation with material at the base that resembles the eastern excavation but with a substantially lower density of flaked stone artefacts.

8.2 Dating

It is very unfortunate that the upper surface of the site was lost before a rescue excavation could be carried out because the sequence is no longer complete. However, it is possible to broadly estimate the age of the deposits based on the artefactual content. The presence of pottery throughout the site indicates an age of less than 2000 years for the basal deposits. However, pottery is rare in the lowest levels and quartz flaked artefacts are common, so those layers may be very close to 2000 years old. Radiocarbon dating will be carried out in due course in order to more closely constrain the age of the midden. Figure 33 shows a schematic cross-section through the site roughly showing the vertical layout of the deposits, what was removed by the builders and what was sampled by the archaeological excavations. The western excavation has likely captured younger deposits in its uppermost levels.

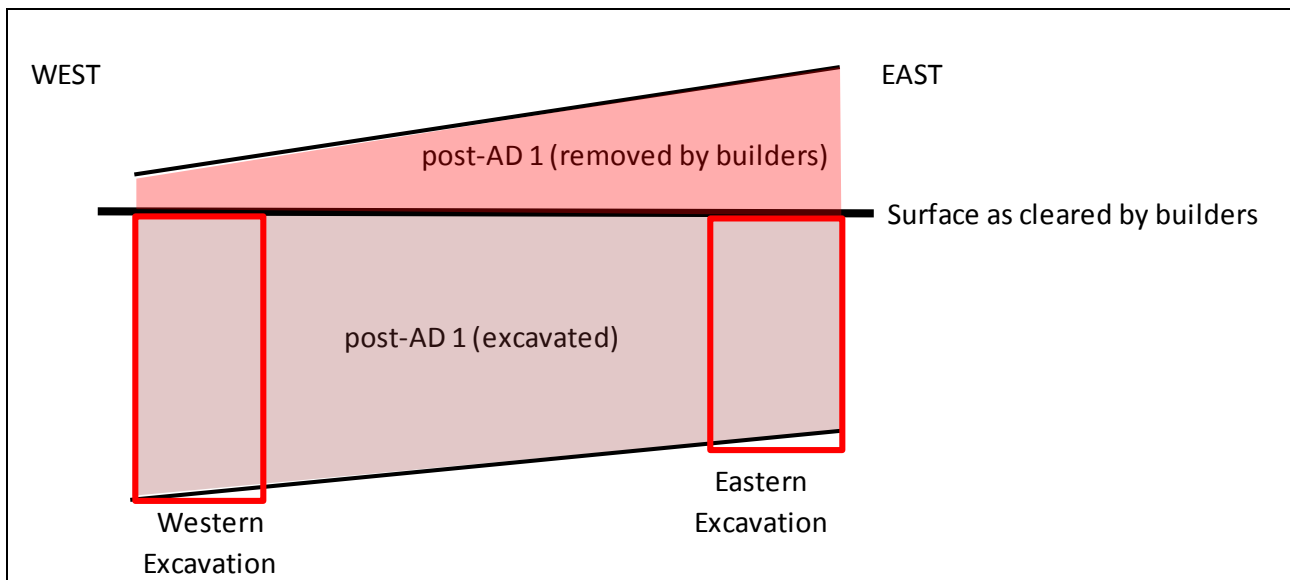


Figure 33: Schematic west to east cross-section through the site showing the excavations (red boxes) in relation to the site clearing and archaeological excavations.

8.3 Grading

This site, if undisturbed, would have had higher value than it presently possesses and could perhaps have been graded 3A. However, in its present state with three properties (including erf 4292) already having impacted on it, this rating has been compromised. It still contains much material of high research value but is now fragmented. As such, a rating of 3B is deemed more appropriate.

8.4 The way forward

It is maintained that the samples that have been collected are suitable for characterising the most significant areas of that part of the shell midden that has been disturbed and that will be buried by the new house. Artefact densities in the eastern excavation are very high and in the western one a large enough area has been removed in order to provide a good sample. Nevertheless, other significant sections of deposit no doubt remain, most significantly to the north/northeast of the proposed house – the area located nearest the original centre of the shell midden. It should be stressed that the deposits in the two excavated areas were very different from one another and that in other parts of the midden there may yet be deposits with still different character. For this reason it is considered important that further developments on the midden area – whether on erf 4292 or on neighbouring properties – should be mitigated by archaeological sampling or that sections of the midden should be protected for future research.

The NHRA makes provision in S.42 for Heritage Agreements. In light of the high local significance of the Bobartia Road Midden it is recommended that HWC explores the possibility of entering into a Heritage Agreement with the landowner in order to protect that part of the midden still remaining intact in the north/north-eastern part of erf 4292. This will, in effect, act as an offset for the area to be lost beneath the house. The area suggested for protection is approximately 80 m² in extent and indicated in Figure 7. It should be noted that, in terms of S.42(6) of the NHRA, it is not compulsory for the owner to enter into such agreement – an agreement can only be reached with

the full consent of the owner. Such an agreement would ensure protection of an archaeologically significant part of the site, while less significant areas may be further developed (for example for a swimming pool).

9 RECOMMENDATIONS

It is recommended that HWC lift the stop-works order and allow construction of the house to continue. There are several mitigating factors in this argument:

- Archaeological mitigation is costly and any further work would render financially unfeasible what is only a small single residential development;
- Further delays would result in further loss of work for the construction company which is small and takes on only a single project at a time (at present the entire crew is awaiting resumption of this project);
- Although covering a smaller area than originally recommended, the archaeological mitigation carried out to date has captured a good sample of two areas of this very large shell midden;
- The proposed Heritage Agreement, if enacted, would go a long way towards protecting a further significant area of the shell midden for future research; and
- The owner of the property should be aware of the possibility of unearthing human burials when digging holes in the future. Should any be located then they should be immediately reported to HWC and the bones left in place for inspection and removal by an archaeologist.

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