EXCAVATIONS AT STEENBOKSFONTEIN CAVE (SBF), LAMBERT'S BAY AREA, SOUTH WESTERN CAPE, SOUTH AFRICA.

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Introduction:

Steenboksfontein Cave (SBF) is located in a prominent rocky outcrop, or "koppie" (32° 09' 42" S, 18° 20' E), on the coastal margins of the relatively flat region known as the Sandveld. The cave is oriented NW-W, and access to nearby reefs and beaches involves a walk of 2 km (Figure 1). Because of its large size, it offers excellent protection, specially during summer months, when the strong southeaster winds are prevalent. Judging by its location, size and prominence in the surrounding landscape, it is not difficult to conceive of this place as having been of a major point of reference for the coastal hunter-gatherers in the past.

SBF, as Pancho's Kitchen Midden (PKM) (see previous report submitted by the author), is located just inland from several "megamiddens" in the area (Figure 1). These enormous shell accumulations date to between 3000 and 2000 before present (BP), but are unfortunately very poor in cultural materials. Their study constitutes one of the main issues of my Ph.D project. In recent years, knowledge of this period has increased mainly by examination of sequences before and after the megamidden accumulation. Prior to excavating SBF, it was expected that this site would likewise provide information from before and after the megamidden period. Surprisingly, all major stratigraphic layers so far excavated have now been dated between 3000 to 2000 BP. As a consequence, it has became clear that SBF offers just the right observations for a better understanding of this millenium. A few points can be mentioned to justify this statement:

i) SBF is the only coastal cave with substantial volumes of deposits dating between 3000 and 2000 BP. With the exception of PKM, various other caves and shelters excavated in the Eland's Bay area (Figure 1) show very small, or no deposit at all, from this period.

ii) SBF shows a chronologically well resolved sequence for this period. The presence in SBF of archaeological deposits dating to just before the arrival of the pastoralist economy in the south-western Cape around 2000 BP is also of special relevance. The dating of this event and the ways in which pastoralism spread in the southernmost part of Africa is currently under intense debate (Smith, 1992; Sealy & Yates, 1994). The interpretation of the SBF archaeological record of the 2200 year old deposits (see below) would allow a better

assessment of the social and economic status of coastal hunter-gatherer groups in the area prior to the introduction of stock-keeping economy. Consequently, it may be possible to establish the extent to which local hunter-gatherers played an active rôle in the spread of this new economy.

iii) The presence of artefacts of different kinds, food remains and hearth features recovered from SBF represent the domestic activities at this site. This information is lacking in the contemporary and nearby megamiddens. What was the character of the visits at both SBF and megamiddens, and how are they integrated in the hunter-gatherer settlement system during the 3000 to 2000 millenium? The study of SBF materials, their associations and relative abundances would certainly contribute to an understanding of this issue.

iv) The analysis of the stone artefacts will contribute towards establishing a more reliable stone-tool sequence for the late Holocene at a regional level. Previous attempts (Robey, 1984; Manhire, 1987) showed incomplete sequences, as no stone-tool assemblage had been recorded from the Eland's Bay and Lambert's Bay areas dating to 3000 to 2000 BP.

v) Unlike many other coastal sites (sheltered or open), the archaeological remains in SBF are remarkably well preserved. The plant and other botanical remains show minimal damage, when not charred or burnt. Throughout the excavated sequence, charcoal and microfauna are present in abundant quantities. The analysis of both these remains will provide an excellent index of the environment surrounding the site. The macro-faunal remains are also well preserved, which will allow the determination of the range of species hunted and/or snared at a more detailed level. The study of the bone cut-marks and gnaw marks will help to reconstruct the butchering practices at that time, as well as the taphonomic processes at SBF.

Excavations:

Further excavations are planned for the end of 1994 and the following year. So far, 3 m^2 have been dug to different depths, and a total of approximately 2 m^3 have been removed. The initial excavation programme at SBF, and subsequent analysis and dating was funded by the SWAN FUND and by a CSD grant of Prof. John Parkington (UCT).

Stratigraphy and dating:

Excavations at SBF were undertaken by following the natural stratification of the deposits. Stratigraphically, SBF deposits are characterized by a series of sandy, and sometimes very ashy, shell lenses. Three of the four observed stratigraphic layers rested in and against the slopes of a previously dug basin. Six radiocarbon dates have been obtained.

The excavated material was sieved through two stacked meshes (3.3 mm on top of a 1.5 mm mesh). All material retained by the 3.3 mm mesh was sorted at the site into various broad categories. Shell, botanical, and sediment samples were taken. The material retained by the 1.5 mm mesh was bagged for further analysis in the laboratory.

Layer 1: Is characterized by a light grey brown, in colour, very sandy deposit. There are numerous macro-botanical remains, predominantly twigs of various sizes. The presence of dried kelp is conspicuous. This stratigraphic layer thins out towards the rear wall of the cave. A date on charcoal of 2200 ± 60 BP (Pta-6136) has been obtained from one of the top most units, and an identical date on charcoal, 2200 ± 50 BP (Pta-6424) was obtained for one of the bottom units within this layer.

Layer 2: These deposits are light brown, sandy, and fairly organic. Botanical remains are represented by small twigs. This layer has less shell and macro-fauna. Microfaunal remains are present in highest quantities relatively to the other excavated layers. One date has been obtained from a sample of post-cranial bones of microfauna: 2360 ± 45 BP (Pta-6136).

Layer 3: This is a layer of dark and heavily burnt deposits. The shell density in this layer is very high, and shell lenses are difficult to trace in the section, specially in ashy units. Equivalent deposits located towards the entrance of cave are encrusted with salt. Botanical remains are less frequent, most of it present in the salt encrusted deposits. Two dates bracket the occupation span of this layer. Top: 2490 ± 50 BP (Pta-6505); and bottom: 2690 ± 60 (Pta-6134).

Layer-4: All the layers described above fill a basin dug by prehistoric inhabitants into this layer. This deposit is characterized by very dark brown, and highly organic matrix. A clearly distinguished hearth present in this layer was dated to 3990 ± 60 BP (Pta-6420).

During the initial excavations at SBF, bedrock was not reached. Considering the ample volumes of material on the cave talus, the total depth of deposits at SBF is estimated to be in the order of 3 to 5 meters.

Preliminary results:

The sorting of the 1.5 mm mesh material has been finished, and the shellfish analysis is still in progress. The stone artefact and other cultural components will be analyzed within the next few month. The microfauna and bone remains are currently under analysis by Dr. D.M. Avery (South African Museum) and Dr. R.G. Klein (Stanford University), respectively. Despite the preliminary nature of the results here reported, they nonetheless present some interesting patterns and findings.

i) Although the range of artefacts and ecofacts recovered from each stratigraphic layer is the same, they are clearly represented in different frequencies and proportions from one to the next. It is clear, that during each occupational episode, the site was used differently by the prehistoric visitors. For example: sometime after layer 4 was accumulated (between 4000 and 2700 BP), people decided to dig a basin, for some yet unknown purpose. The creation of this basin is unlikely to have responded to the need of generating space. The cave roof was at least three to four meters above the visitors heads by that time. After this episode, during the accumulation of layer 3 (c. 2600 BP), visits must have been relatively longer, as most of the finished and unfinished beads are found there. This reconstruction can be proposed since the activity involved in bead manufacture has been described as very time consuming (Goodwin & van Riet Lowe, 1929). During these visits, massive and long-lasting fires were lighted, as shown by hearth stone features and dense, heavily burnt (calcined) material. In this layer, macro-fauna, shell and ochre densities are also the highest in the excavated sequence. Layer 2 (c. 2300 BP), hardly shows evidence for human visits to SBF:

most of the bone is comprised of microfauna. The larger part of it was certainly introduced by regurgitated pellets from raptors roosting on a prominent inner cave ledge, located just above the excavations. Macro-fauna, shell and other humanly introduced materials are rare. Around 2200 BP (layer 1), people resumed visits to the site. Considering the substantial volumes of cultural deposits in this layer, the deposition rate by this time was clearly very high. Accordingly, the settlement pattern at SBF seems to have consisted of very frequent short term visits: there is almost no evidence for ostrich egg shell (OES) bead manufacture, and very little evidence for stone flaking activity.

ii) A fair number of stone artefacts have been recovered from the excavated material. Preliminary observations indentify scrapers and adzes as the most frequent formal tools. Cores, flakes and other debitage material are present in surprisingly low numbers. Most of the raw material used in the production of stone tools were locally available quartzitic stones (quartz and quartzite). Exotic raw materials (varieties of silcretes) are relatively more abundant in layer 4 (c. 4000 BP). These trends are comparable to those described for PKM and Tortoise Cave (own data).

iii) Changes in the shellfish species composition at SBF correspond broadly with the contemporary changes observed in other shell middens located in the Lambert's Bay and Eland's Bay areas. It seems that *Choromytilus meridionalis* (black mussel) dominates throughout the recorded sequence. Nonetheless, *Patella* spp. are encountered more frequently in layer 4 than in the above layers.

iv) Tortoise bones are the most frequent component of the macro-faunal remains, followed by small to small-medium sized bovid bones throughout the four layers. Only layer 4 shows the presence of big bovid bones. Remarkably, bird bones were found with highest frequency also in layer 4.

v) Layer 3 contains a variety of artefacts that are either infrequent or absent in other layers. As mentioned above, most of the unfinished and finished OES beads have been found in layer 3. Here, most of the fine twine and pigments, and most of the six formal tools with remnants of mastic (attachment substance used on hafted tools), as well as most of the exotic shell and OES pendants, were found. A unique and finely decorated reed tube was

also found in layer 3 deposits. An exception to this pattern is the presence of a silcrete adze mounted on mastic, in an excellent state of preservation, found in layer 1. In the late Holocene deposits of various excavated sites in the Eland's Bay area (not all of them shown in Figure 1), an increase in exotic shell and OES pendants, as well as pigments and ochre rubbed artefacts is shown in the last 2000 years, (contrasting with the earlier pre-3000 year old sequence). It seems now that this difference was not brought about by the appearance of pastoralism in the area, but perhaps by: a) a factor of preservation; b) the absence of 3000 to 2000 BP cave deposits in that area; and c) a continuation of an already established tradition in the previous millenium.

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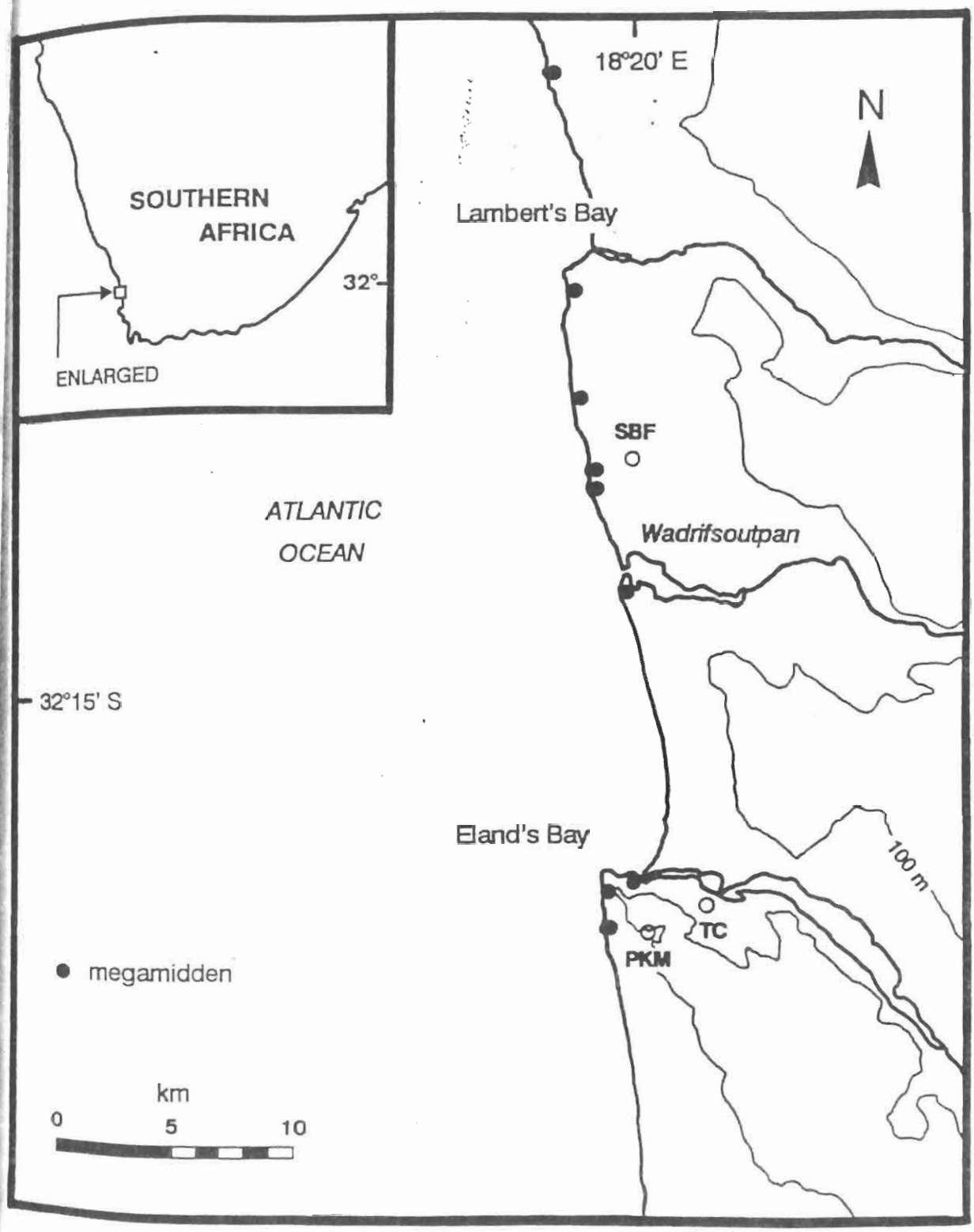

Figure 1: Geographic location of Lambert's Bay and Eland's Bay areas, including archaeological sites mentioned in the text. SBF, Steenboksfontein; TC, Tortoise Cave; PKM, Pancho's Kitchen Midden.

References:

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.

Manhire, A. (1987). *Later Stone Age settlement patterns in the Sandveld of the south-western Cape Province, South Africa.* Cambridge Monographs in African Archaeology, BAR International series 351.

Robey, T. (1984). *Burrows and bedding: site taphonomy and spatial archaeology at Tortoise Cave.* M.A. thesis, Department of Archaeology, University of Cape Town.

Sealy, J. & Yates, R. (1994). The chronology of the introduction of pastoralism to the Cape, South Africa. *Antiquity*, **68**: 58-67.

Smith, A. (1992). *Pastoralism in Africa: Origins and Development Ecology.* Witwatersrand University Press, Johannesburg.