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RESULTS FROM A TEST EXCAVATION AT THE HAVENS CAVE, CAMBRIA VALLEY, SOUTH-EASTERN CAPE*

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ABSTRACT

The Havens Cave (THC) was the first inland site in a series of test excavations in the south-eastern Cape mountains. The age of the basal deposits is estimated at 10 500 BP and comprise a typical Albany Stone Tool Industry, i.e, quartzite flake industry with large circular scrapers as the only formal tool type. The surface units yielded well-preserved plant material, which included a wide variety of edible and medicinal remains and an *in situ* grass lined storage pit.

INTRODUCTION

In 1981 a research project was initiated in the south-eastern Cape[1] (Fig. 1). The long term aim of the project was to investigate and to contrast socio-economic strategies and settlement patterns along the Cape St Francis coast and the adjacent Cape mountains (Binneman 1985, 1996). This paper summarizes the results of a test excavation at The Havens Cave, the first of five inland sites investigated during the 1980s. A detailed site analysis will be published elsewhere (Binneman in prep.)

Initially the inland research was aimed at establishing a time sequence for the region and to find sites with well-preserved plant material to contrast subsistence patterns at sites such as Melkhoutboom Cave and Scott's Cave. However, almost all the sites located in the Baviaanskloof/Kouga mountains only contained well-preserved plant material from the past 2000 years. This finding forced me to sample these recent deposits rather than to concentrate on long time sequences. During the early 1990s a sequence with plant preservation estimated to ca 5-6000 BP was located. Work at the site is still in progress and the results will be reported on elsewhere.

Prior to the initiation of the study, relatively little systematic, scientific archaeological research had been conducted in the south-eastern Cape, inland as well as along the coast. Only two inland sites, Scott's Cave (Deacon & Deacon 1963) and Paardeberg Cave (unpublished) were excavated, while J. Deacon (1965) had analysed material rescued from a shelter during the construction of the Paul Sauer dam at Andrieskraal. Amateur archaeologists were responsible for some work along the Cape St Francis and Tsitsikamma coasts (Hewitt 1925; FitzSimons 1923, 1926; Laidler 1947; J. Rudner 1968). In 1965 and 1967 H.J. Deacon excavated at Storms River Mouth in the Tsitsikamma National Coastal Park (Deacon 1970). At St Francis Bay Thackeray & Feast (1974) removed a burial, Cairns (1976) excavated a stone feature and Singer & Wymer (1982) excavated several of the caves and shelters at Klasies River Mouth. Since 1984 the University of Stellenbosch conducted research at Klasies River main site (Deacon 1988, 1995).

PHYSICAL ENVIRONMENT

Inland, between the coast and drier Karoo region and almost parallel to the Tsitsikamma coast are three high mountain ranges of the Cape Supergroup, the Tsitsikamma, Kouga and Baviaanskloof, separated by the Langkloof and Baviaanskloof valleys. Although most of my inland research was conducted in these mountains and valleys, The Havens Cave is situated in the Cambria valley adjacent to the Baviaanskloof (Fig. 2). The valley is drained by the Groot and Wit Rivers. The area is composed mainly of Table Mountain quartzite with outcrops of Bokkeveld shale and Enon conglomerate in the lowlands (Rust & Illenberger 1989). The vegetation is diverse and includes fynbos, valley bushveld, spekboomveld, renosterveld, grassland, Karoo scrubland and remnants of Knysna forest in the deeper valleys (Vlok 1989). The area receives an annual rainfall of between 200 mm and 600 mm. The temperatures can reach as high as 45° C in summer and drop well below 0° C in winter, with snow on the higher mountain peaks.

THE SITE AND IMMEDIATE ENVIRONMENT

The Havens Cave (33.41 S; 24.34 E) is located in the Cambria valley, some 200 m above the confluence of the

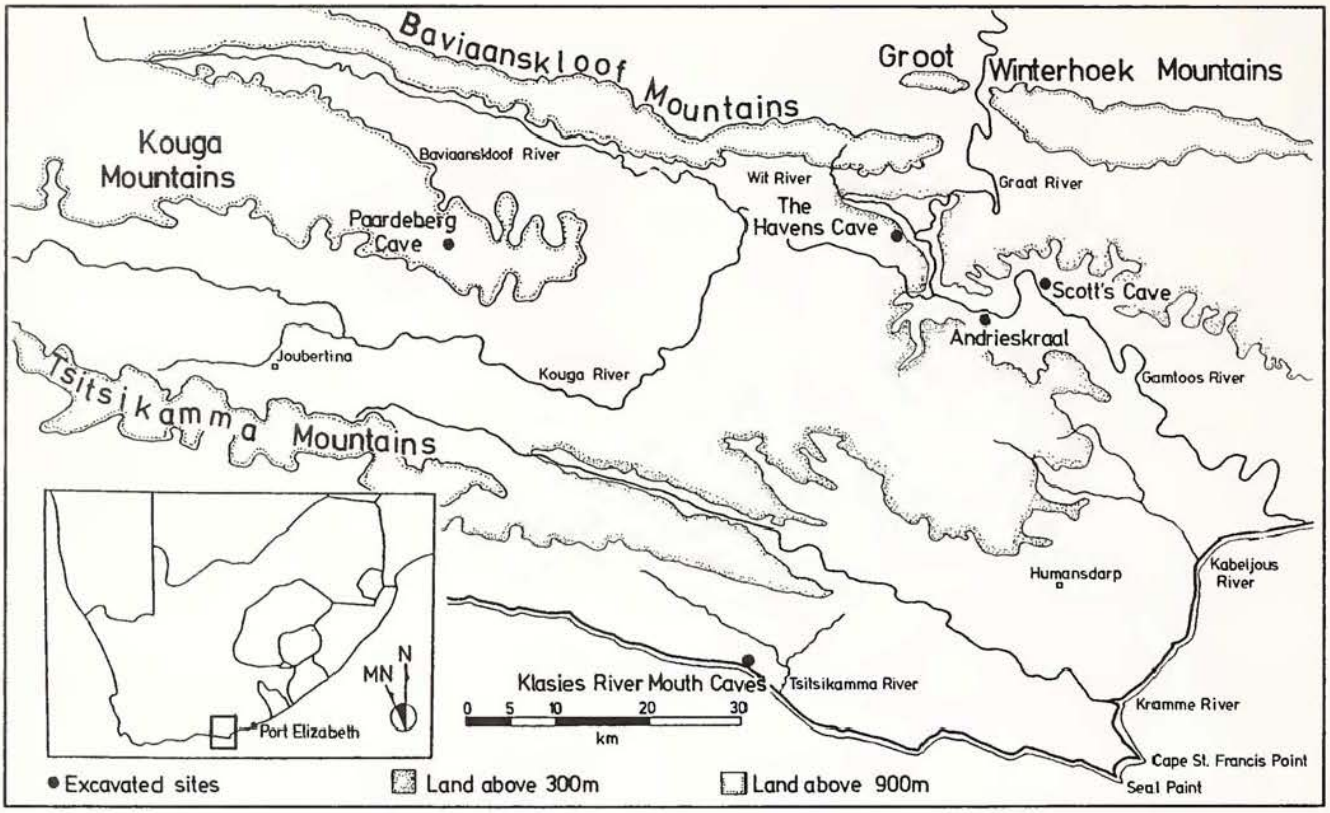

Fig. 1. Map of the south-eastern Cape indicating some of the excavated sites mentioned in the text.

Groot and Wit Rivers (Fig. 2). The cave is located approximately 20 km north-west of Scott's Cave (Deacon & Deacon 1963) and some 40 km north-east of Paardeberg Cave, excavated by H.J. Deacon (unpublished) during 1972. The cave is situated in a fold along a Table Mountain Sandstone cliff facing north-east with a scenic view of the meandering Groot River and Cockscombe, the highest mountain peak in the south-eastern Cape (Fig. 3).

The cave floor is 17 m across along the dripline, 8 m deep and the domed roof is some 6-8 m high. Numerous rock paintings, most faded beyond recognition, are visible along the domed back wall of the cave (Figs 4 & 5). There are also stubs of pegs still visible in cracks along the wall which were probably used to hang bags and equipment.

A one square metre was excavated in the southern part of the cave to a depth of 1,40 m. The deposit slopes steeply down over the length of the cave and it is evident that most of the plant remains have been destroyed by trampling. Goats have used the cave from at least 1910 to 1969 both to sleep in and as shelter against bad weather (previous owner, pers. comm.).

The vegetation on the hillside and in the immediate vicinity of the cave is composed mainly of small trees, scrubs and grasses and is similar to what Acocks (1975:58) describes as Succulent Mountain Scrub, or Spekboomveld. Along the Wit River and in sheltered kloofs in the vicinity of the cave remnants of forests are still to be found. Species such as *Podocarpus latifolius*, *Ficus burtt-davyi* and *Sideroxylon inerme* are common. The average rainfall measured since 1965 by the owners of the farm was 440 mm per annum.

EXCAVATION, STRATIGRAPHY AND DATING

The cave deposits were well stratified with alternating colourful soft and hard ash and humified and carbonised organic-rich layers (Fig. 6). The deposits were to a large extent free from major disturbances. Small scale disturbances had however been caused by wasps nesting in the soft deposits. Only the bottom 0,20 m resting on bedrock contained numerous angular pieces of rubble, giving it a stony appearance. A number of the layers and features did not extend over the excavated area, making interpretation difficult. Well-preserved plant remains were restricted to the top 0,20 m of the deposit. Apart from charcoal, a few carbonised seeds were found in the lower layers. The absence of macroscopic plant remains in the lower levels was probably due to a high degree of leaching, oxidation, humification and combustion.

Thirty two features, horizons and layers were identified and grouped into fourteen units for analysis. These are summarised from the surface to bedrock.

The surface was trampled and therefore the *in situ* bedding material was kept separate from other surface material because of possible mixing. The Bedding unit (BED) consisted of a thick layer of plant remains, mostly grass, between 150 and 200 mm thick. A storage pit in this unit has been dated to 1280 ± 50 BP (Pta-4610).

Other surface material (Unit POS) consisted of surface dust and loose grey ashy deposits with fine grass, burnt

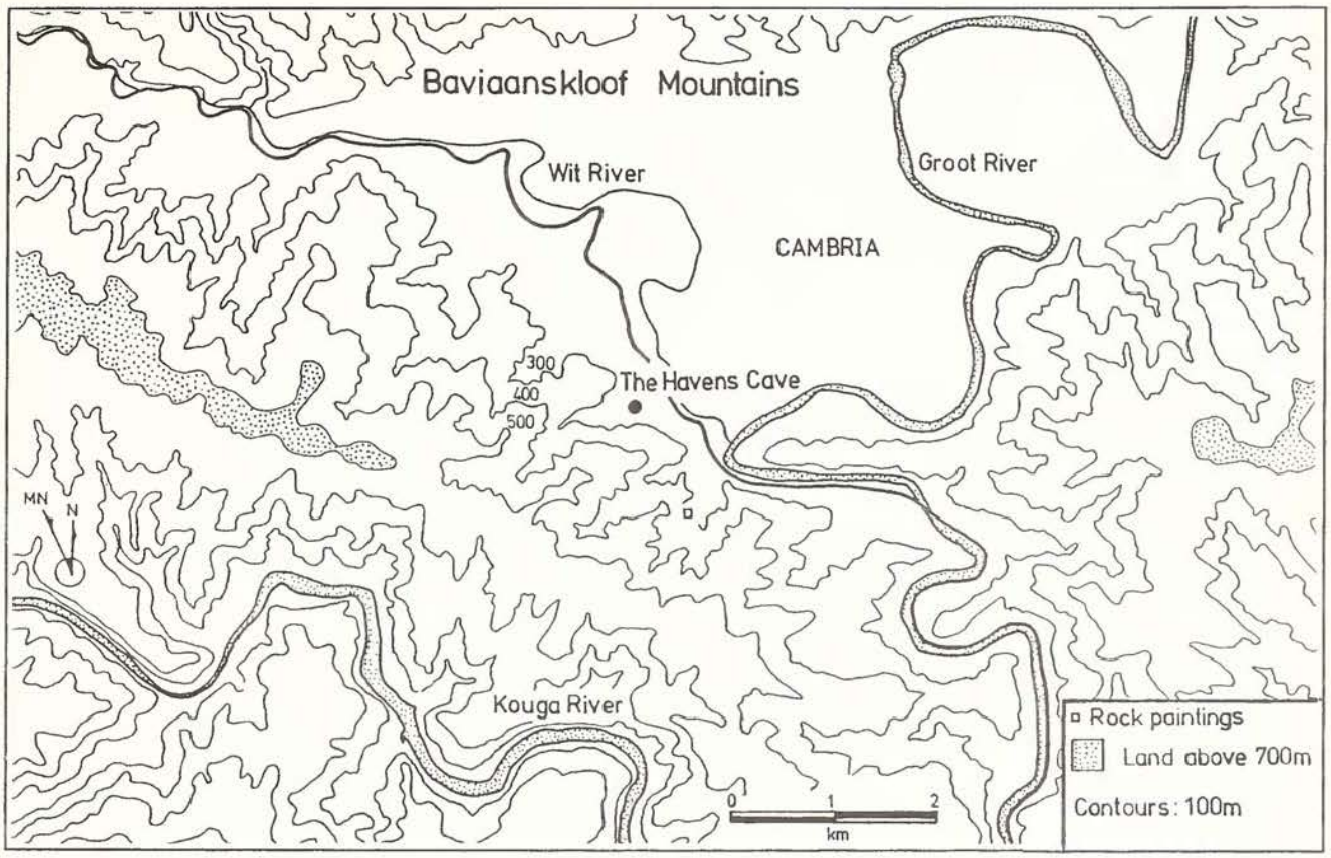

Fig. 2. Location of The Havens Cave.

Fig. 3. A view of The Havens Cave.

and carbonised grass, bark, sticks, a few corm tunics and cultural material, including potsherds. It also included three shallow, circular depressions lined with fine compacted grass remains, some 50 mm thick. Underneath the hollows were dark grey ashy deposits with burnt and carbonised grass material and stone artefacts. A burial (B), located underneath one of the bedding hollows, most probably also belongs to Unit POS.

POS was followed by unit OGA which consisted of hard, stony orange and white oxidised ash with thin dark grey ashy lenses. Two similar soft compacted white ash layers separated by a thin carbonised parting comprised unit WAG which underlaid OGA. This unit was followed by unit BOW, a brown carbonised organic layer with thin mottled ash and thin black ash lenses and soft grey deposits with white mottled ash. Unit WGA, composed of hard white leached ash (WLA) and yellow loams with mottled ash underlaid unit BOW. The next unit, VOG, consisted of black carbonised organic material and grey leached ash with a small ash feature. Layer VOL also marks the reappearance of *Nassarius kraussianus* shell and beads and has been radiocarbon dated to 6190 ± 80 BP (Pta-3917). VOG was followed by unit KOW which comprised stony oxidised sands with abundant stone artefacts and hard white leached ash. Underlying unit KOW was unit GHA which consisted of grey humified organic material, mottled ash and hard white leached ash. The underlying unit, SBA, signalled the beginning of the Wilton Industry and was composed of soft brown humified organic material, mottled ash and soft black carbonised organic material with abundant charcoal. Unit SBA dates to 6610 ± 90 BP (Pta-3913).

Unit OOA represented the end of the Albany Industry and consisted of thick layers of stony oxidised orange and white ashes. This was followed by unit BOA which was composed of soft brown humified organic soils and a thick layer of hard stony oxidised orange ash. The next unit, GOW, included soft grey carbonised organic material and a thick layer of hard white leached ash. Layer GOL was radiocarbon dated to 9790 ± 90 BP (Pta-4620). Large quartzite scrapers were the only formal

Fig. 4. A view of the inside of The Havens Cave.

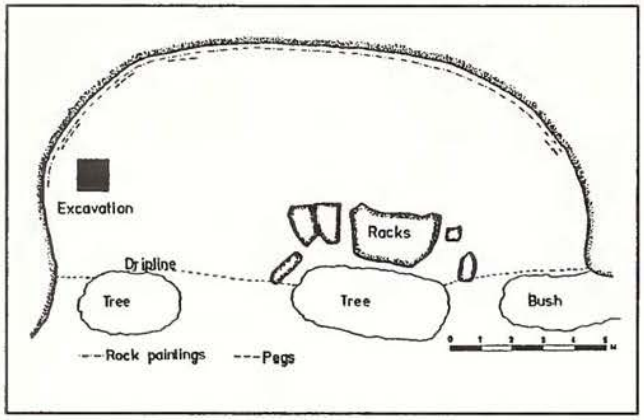

Fig. 5. Floor plan of The Havens Cave.

tools. The botom unit ROL was sub-divided into ROL 1-4 during excavation and comprised a thick layer of orange oxidised stony sands which overlay sloping bedrock. A radiocarbon date of 5820 ± 80 BP (Pta-3915) for ROL 4 has been discarded because it was too recent for the associated Albany Industry. Oxidation and leaching probably caused the incorrect result. This unit did not yield any formal tools. The stone artefact assemblage consisted mainly of quartzite flakes.

Sampling, processing and identification of the plant remains

Plant material at The Havens Cave was sampled in much the same way as at Melkhoutboom Cave (Deacon 1976:85). One bucket of unsieved bulk deposit was taken from occupation layers and bagged for analysis in the laboratory. A second method of sampling was to remove a feature or thick compacted patches of plant material *in toto* for analysis. This method makes it possible to study the material in more detail in more comfortable conditions.

All the bulk samples were weighed before being sieved through a 1 mm mesh to remove the fine sand. This removed between 60% and 80% of the inorganic component. The samples were weighed again before being passed through a 3 mm sieve to remove most of the grit and fine unidentifiable grass material. All fragile, potentially identifiable material was removed from the sieve to avoid damage. The finds from the 3 mm mesh were checked for possible identifiable material that might have passed through, such as small *Rhus* sp. seeds.

The bulk samples were sorted into different categories similar to those described by Deacon (1976:212). Identification of plant remains took place under the supervision and assistance of the staff of the Selmar Schonland Herbarium at the Albany Museum. Individual species were then weighed and quantified where possible. All other sieved plant remains were sorted for 'special finds' or remains which were absent from the bulk samples. Non-botanical remains were also recorded.

FEATURES

Features included hearths, ash bodies, a storage pit and a burial hollow. The storage pit was removed *in toto* for study in the laboratory.

Hearths and ash bodies

The hearths at The Havens Cave were small circular concentrations of black ash and abundant lumps of charcoal. The hearths were smaller than 300 mm in diameter and usually not deeper than 50 mm. The hearths were essentially isolated features with no stones or any other visible preparation and probably represent one-off occurrences.

A considerable part of the deposit at The Havens Cave was made up of ash bodies of different colours and textures. Essentially three types of ash bodies were identified. These consisted of thick, hard and soft white ash, compacted, stony orange-red ash and soft, brown and grey mottled ash.

Storage pit

A grass lined pit with a diameter of 300 mm and a depth of 100 mm deep was found in the bedding unit. The pit was made in the plant rich top layer and the bottom rested on white ash (Unit WAG). Thick grass allowed the complete removal of the lining and the contents with little loss or disturbance to the feature. The feature was removed *in toto* for study in the laboratory (Fig. 7).

The pit was filled in with dark grey soil and a wide range of food waste and cultural remains (Table 1). The opening of the pit was not sealed like some other storage pits found elsewhere in the Baviaanskloof. This fact, together with the contents, suggests that the pit had most probably been emptied of its original contents and filled in by natural accumulation of organic and cultural material.

The grass lining consisted of a fine wiry type of grass. Only the above ground grass stems were used for lining the pit. The bases and roots of the grass were removed before the pit was lined. Because grass leaves and even grass bases are extremely difficult to identify in an archaeological context, it is not known what type of grass was used as lining. *Enneapogon scoparius* Stapf. ("dassie"/hyrax grass) resembles the lining the closest of

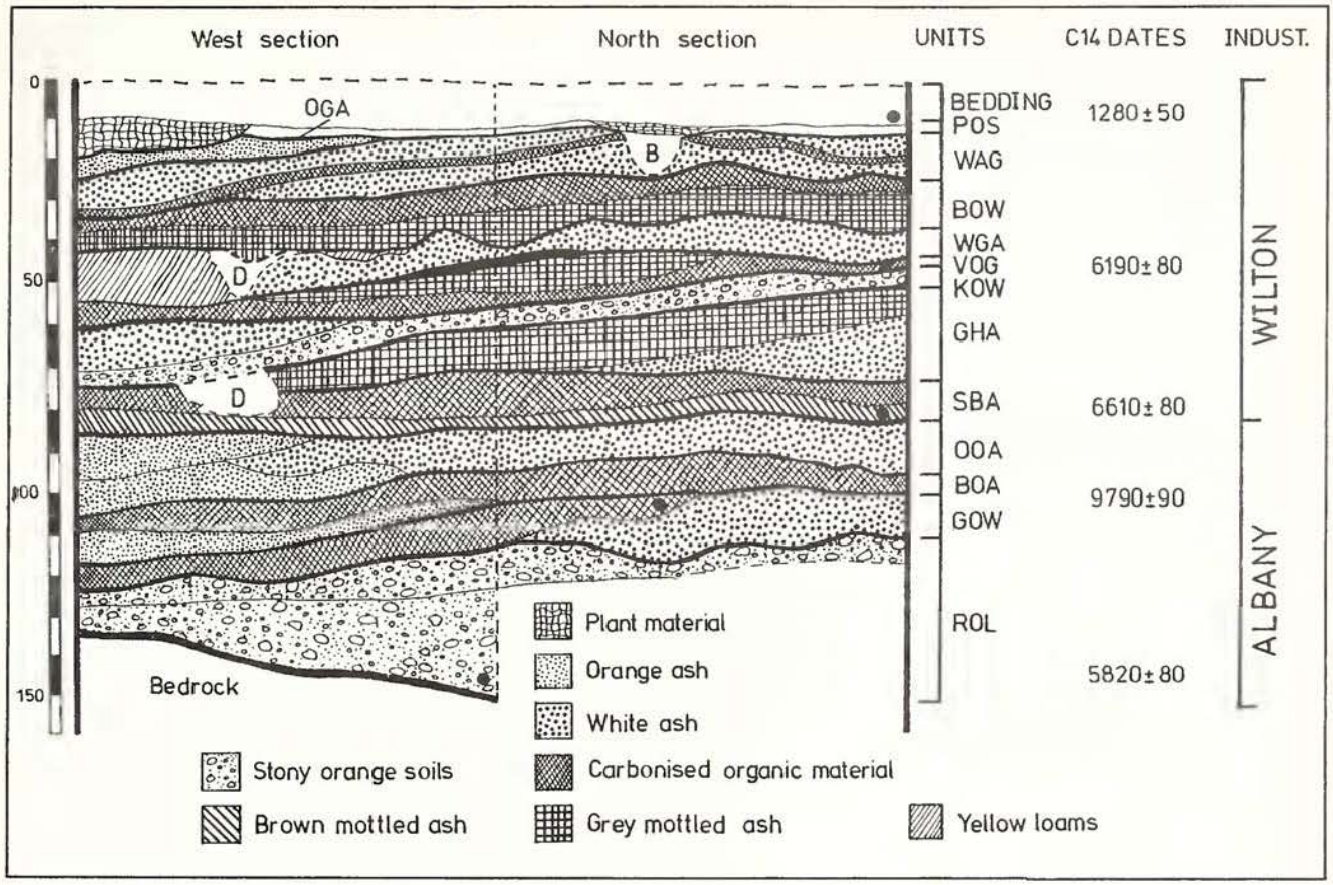

Fig. 6. Section drawing of the excavation at The Havens Cave.

all the modern day grasses growing on the hillslope.

The pit yielded some 300 *P. capensis* seeds. Other seeds found were *P. falcatus*, *Olea europaea* L. subsp. *africana* (Mill.) P.S. Green (wild olive), *Schotia latifolia* Jacq. (bush boer-bean), *Euclea* spp. Murray and *Rhus* spp. L.

Burial

Only one burial, that of an infant (possibly foetal) was found (Fig. 8). A small shallow hollow, 140 mm in diameter and 100 mm deep, was dug into a thick layer of white ash (WA1). The burial shaft was most probably dug from the overlying bedding unit. The burial was covered by strings of *Nassarius krassianus* beads (730) and some ostrich eggshell beads (18). The carapace of a small tortoise (*Homopus areolatus*) was also found with the burial (see Hall & Binneman 1987).

SUBSISTENCE AND DIET

Plant remains

The bulk of the plant remains from The Havens Cave consisted of grasses (Table 1). Three species of grasses were positively identified from The Havens Cave. *Themeda triandra* seems to be the most common grass brought into the cave. The inflorescence are easily identified and the grass bases and stems have a distinctive red colour. This grass flowers between September and December (Chippindale 1955). The other grasses identified from their florescences were *C. validus*, *E.* cf. *curvula* and *K. capensis*. All these grasses flower between early and mid summer (Chippindale 1955). The economical value of grasses, except for bedding and to line pits, was probably of limited importance. In the Transkei *E. curvula* is used as food in times of famine (Fox & Norwood Young 1982:301).

A wide variety of seeds, remains of underground bulbs, other edible plants and medicinal plants were recovered from the deposit. *Pappea capensis* were the most abundant seeds found in all the samples. Other important seeds include *Schotia afra* and *S. longifolia* pods and seeds, *Euclea* spp. and *Olea africana*. *Cyperus usitatus* accounts for the bulk of the underground plant remains. Other underground plant remains include *Oxalis stellata*, *Hypoxis* cf. *argentea*, *Freezia* cf. *corymbosa*, *Watsonia* sp.and *Moraea* sp. *Dioscorea elephantipes* remains are also well represented in the bedding unit. *Boophone disticha* is the most common medicinal plant found at The Havens Cave. Another interesting medicinal plant found was *Agathosa puberula* (buchu).

Most of the botanical remains found at The Havens Cave are known to have been used among Bantu-speaking people, and they may have had similar uses among the inhabitants of The Havens Cave. The majority of the edible plant remains were collected during early and mid summer, but there are other species present

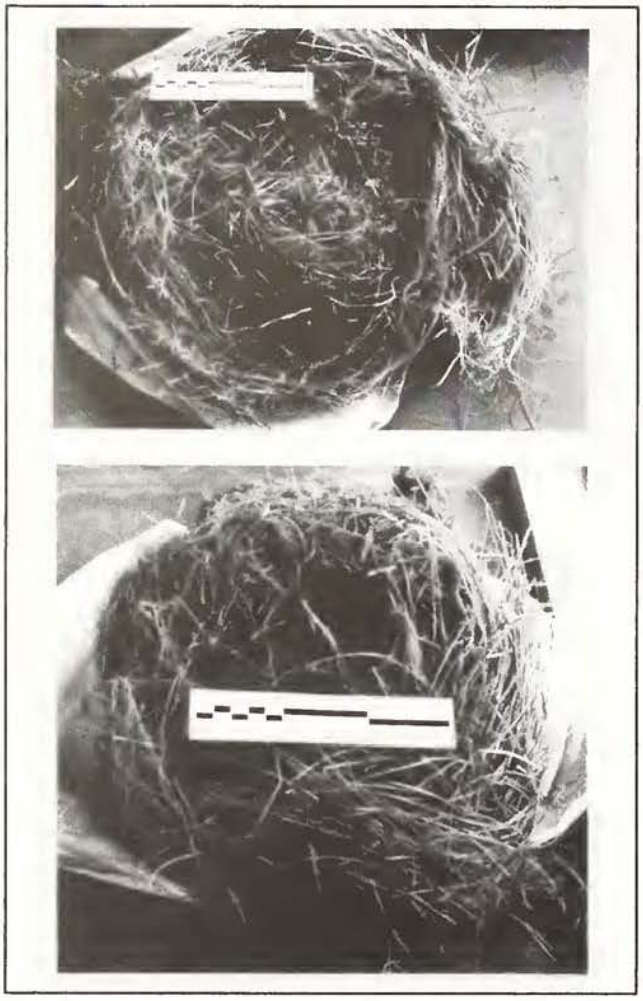

Fig. 7. The complete storage pit. View from the top (above) and view of the grass lining (below).

which suggest that the site may have been occupied during autumn and early spring. *Schotia latifolia* (available between April and August) and *Oxalis stellata* (April to June) are two plant foods which suggest that people occupied the cave through the winter months. On the other hand, both these species could have been collected at the very end or beginning of their availability. The importance and medicinal use of the plant remains will be discussed elsewhere (Binneman in prep.)

Mammal remains

The mammal remains from the Wilton units at The Havens Cave are mostly of small to medium small animals, mainly *Raphicerus* sp. and *Procavia capensis*. The Albany units show a similar trend (Table 2). Few medium large and large mammels were captured in the Albany and Wilton units. This may suggest that the emphasis was directed towards trapping/snaring rather than hunting (although this may not have been the case). The only species which occurs in the Wilton units that is absent from the Albany is *Potamochoerus porcus*. However, this may be due to the small sample size.

Fig. 8. Burial with *Nassarius Kraurssianus* beads.

Other food remains

Other faunal remains such as tortoise, other reptiles and crab are insignificant. *Unio caffer* (freshwater mussel) is present in the layers, but appears not to have been exploited in any significant quantity (Table 3). Freshwater fish vertebrae are also present in the bedding samples, but the numbers are insignificant and fish were probably not important in the diet. The fish were caught during summer (S. Hall, pers. comm.).

CULTURAL REMAINS

Lithic artefacts

Since the conventional methods and descriptions as outlined by J. Deacon (1969, 1982) and H.J. Deacon (1976) have been followed for the analysis of the lithic artefacts from The Havens Cave, no further discussion is necessary. The only difference is that all battered pieces are classified as core reduced pieces, as they represent the same processes of bi-polar flaking (Barnham 1987).

A large number of stone artefacts (23 107) was recovered from the small excavation (Table 4). Formal tools only account for 1,3% (299) of the total. Scrapers are the most important formal tool (91,6% or 274). The waste category accounts for the majority of the stone tools (98,5% or 22 759).

The most important raw materials are quartzite and quartz. Other raw materials are virtually absent. Quartzite is the dominating raw material throughout most of the sequence, except for the upper four units where quartz dominates (from unit WAG). Hornfels shows a slight increase in the Albany units, but silcrete and chalcedony are absent in these units.

The scrapers are the only formal tools recovered from the Albany units. These are large and made of quartzite. Scrapers from the Wilton units are the only formal tool class on which statistical analysis could be performed (Table 5). The scrapers from The Havens Cave differ slightly from other assemblages from the Eastern Cape proper and the adjacent Western Cape. The mean size of the scrapers was in general smaller than any other Wilton assemblage. The majority of the scrapers were manufactured from quartz (91,6%). Of these, 85,6%

Table 1. Analysis of bulk samples of plant material.

	Storage pit	Bedding		Storage pit	Bedding
WEIGHT					
Unsieved	2781,2 g.	2986,4 g.	*Grewia occidentalis*	0,1	0,1
1mm mesh	1093,8 g.	1205,6 g.	*Olea africana*	0,8	1,3
3mm mesh	950,3 g.	1010,5 g.	*Ehretia ridiga*	*	
			Diospyros sp.	*	0,1
NON BOTANICAL			*Euclea* sp.	0,7	4,3
Waste stone	92,9	120,9	*Podocarpus* cf. *falcatus*	1,2	
Stone tools	63,4	94,6	*Maytenus* cf. *heterophylla*	0,1	0,1
Pottery	11,0	3,0	*Hypodiscus aristatus*		0,2
Marine shell	0,9	2,9	*Apodytes dimidiata*	*	
OES	0,5	1,9	*Ricinus comminis*	0,1	0,5
Freshwater shell	0,3	0,8	*Enceplialartos cf. longifolius*		0,6
Bone	18,6	13,0	*Cissampelos capensis*		*
Mastic		0,1			
Leather		1,3	**EDIBLE AND MEDICINAL**		
Insects	0,9	2,7	*Cyperus usitatus*	0,4	0,5
Coprolites	2,3		*Moraea* sp.		
Earth lumps	3,7		Corm tunics	*	
Acatina	0,4		*Watsonia* sp.		
Owl pellets	1,4	0,8	Corm tunics	1,1	0,2
Freshwater fish	*	0,1	Corm bases	0,6	0,4
Termite casts		5,4	*Freezia/Tritonia* sp.		
			Corm tunics	0,8	1,8
PROCESSED PLANT MATERIAL			Corm Bases	1,1	0,1
REEDS	0,2		*Hypoxis* sp.		
Cut		0,4	Contractile roots	0,2	0,6
CYPERUS TEXTILIS	1,5	1,1	*Oxalis stellata*		
Cordage	0,2	2,9	Corm tunics	0,8	0,8
Netting		0,9	*Boophone disticha*		1,4
Matting	1,6		*Portulacaria afra*		
Cut/slit	*		Stems	1,8	0,4
WOODEN ARTEFACTS			*Dioscorea elephantipes*	23,4	6,3
Pegs		0,6	*Carpobrotus edilus*	0,2	
Shavings	2,9	1,2	*Gasteria* sp.	0,9	1,1
Cut	0,1	0,6	*Anthospernum* cf. *paniculata*	*	
			Agathosma puberula	0,1	
GRASSES					
Lining	129,6		**LEAVES**	6,0	8,9
Stems and bases	28,5	15,3			
			OTHER INCLUSIONS		
INFLORECENCES			Charcoal	23,3	7,2
Themeda triandra	*		Twigs and bark	30,9	44,7
Cymbopogon validus		*	*Aloe* sp.	0,3	
Koeleria capensis		*	Thorns	0,1	0,3
			Moss	*	*
SEEDS AND FRUITS			*Helicrysum* sp. flowers	0,1	
Schotia latifolia	1,6		*Medicargo* cf. *aschersoniana*		*
Schotia sp. pods	13,0	16,1	Misc. unidentified	6,9	4,2
Pappea capensis	18,6	7,7			

* Present

were quartz crystal. The smallness of the crystals determined the smaller size of the scrapers.

At the beginning of the Wilton period (unit SBA), the scraper length is slightly longer than in the overlying units. From unit GHA the scrapers are shorter, but the size increases with the largest measurements in units BED and POS. This corresponds with observations elsewhere (Deacon 1984:306). The width of the scrapers shows similar patterns, and are wider in the later units than the earlier units.

Other imports such as ochre, shale pieces and micaceous sandstone were well represented throughout the sequence. Edge grounded ochre pieces are only found in the bedding unit.

Non-lithic artefacts

Botanical artefacts

A wide variety of botanical artefacts were recovered from the Bedding unit (Table 6). *Cyperus textilis* Thunb.

Table 2. Mammal remains (MNI) from The Havens Cave.

	Wilton units											Albany units				
	BED	POS	OGA	WAG	BOW	WGA	VOG	KOW	GHA	SBA	TOT	OOA	BOA	GOW	ROL	TOT
MAMMALS																
Papio ursinus										1	1			1	1	2
Small primate															2	2
Small carnivore									1		1					
Procavia capensis	2			1	2	2	3	6	3	2	21	6	2	2		10
Potamochoerus porcus				1		1	1				3					
Oreotragus oreotragus										1	1	1	1	1		3
Raphicerus campestris	1										1	2				2
Raphicerus sp.		2	2	2	2		2	4	1	1	16	3	3	1	4	11
Redunca fulvorufula										1	1	1		1	1	3
Silvicapra grammia									1		1	1	1			2
Lepus sp.										1	1	1	1	1	2	5
Bovidae - genera																
small	1					1	1	1	1	1	6			2	3	5
small medium		1			1			1			3	3	1		3	7
large medium					1						1	2			2	4
large					1						1					
TOTAL	**4**	**3**	**2**	**4**	**7**	**4**	**7**	**12**	**7**	**8**	**58**	**20**	**9**	**9**	**18**	**56**

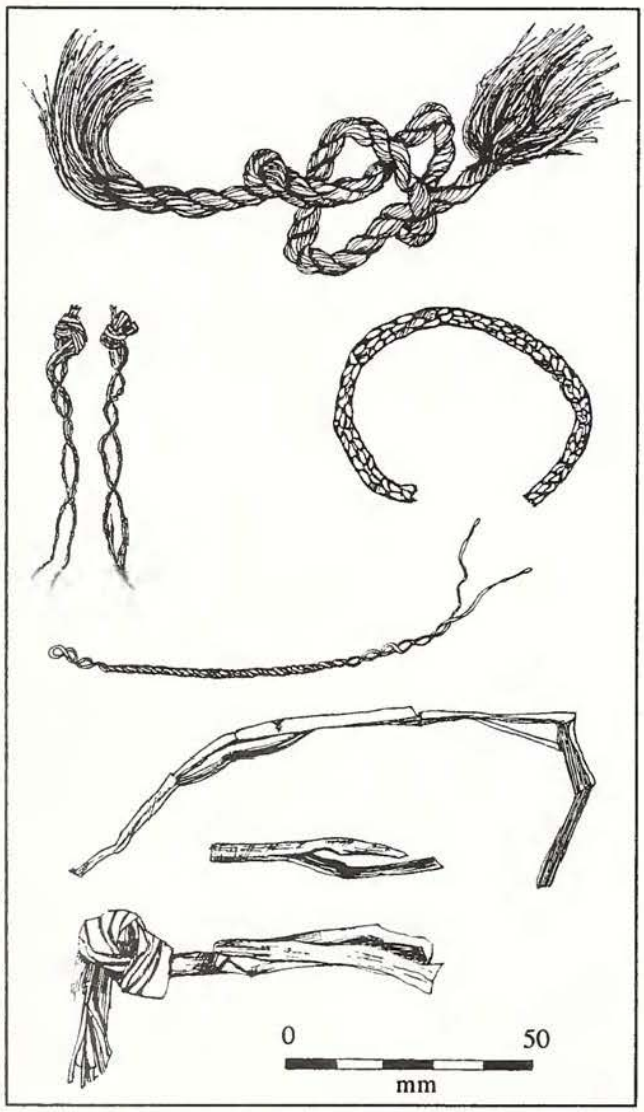

Fig. 9. *Cyperus textilis* artefacts.

("matjiesgoed") was recovered in fair amounts from the bedding samples, and is composed of fragments, cut pieces, and remains of mats and cordage (Fig. 9). Some knots were found which may have been parts of a net. This plant grows in vast quantities along the Wit and Groot Rivers below the cave. Only one seed bead was recovered. The one end of a *Hypodiscus aristatus* (*Restionaceae*) seed is ground down to expose the small hole which runs through the length of the seed.

Fair numbers of wooden artefacts were found. These included linkshafts, points, fire drills, pegs, worked and cut pieces and large numbers of wood shavings. The types of wood used for the different implements have not yet been established, but at Melkhoutboom Cave *Ficus capensis* was used for fire drills, and it is possible that the same wood was used at The Havens Cave.

The wood shavings consist mainly of chisel, and cut and tear shavings. Some rose shavings were also found (Binneman 1982). Many thick shavings, well polished with previous chisel marks still visible, are also present in the samples. These most probably came from resharpened digging sticks or pegs. The shavings were caused by sharp objects and closely resemble those created with experimental stone adzes (Binneman 1982; Binneman & Deacon 1986).

Shell remains

Marine shells, presumably used for decorative purposes, were present throughout the sequence (Table 3). *D. serra* was also present throughout, but none was turned into artefacts. Other marine shells recorded include, *H. spadicea*, *P. perna*, *P. argenvillei* and *N. kraussianus*. These were present in the Albany units, but absent in the units which mark the start of the Wilton period (6610 ± 80 BP.). These shells re-appear again in the sequence at 6190 ± 80 BP. This pattern is similar to

Table 3. Frequencies of shell, worked shell and bone from The Havens Cave.

	Wilton units											Albany units				
	BED	POS	OGA	WAG	BOW	WGA	VOG	KOW	GHA	SBA	TOT	OOA	BOA	GOW	ROL	TOT
OES																
Fragments	2	8	10	13	36	8	14	7	7	14	119	60	122	70	43	295
Roughouts	1	3	1		9	6	15				35	10	10	3	5	28
Beads	2	24*	2	1	3	1	4	7		2	46	7	12	1	1	21
Pendants	1										1					
Decorated fragments					6						6		1			1
Container apertures													1	2	1	4
TOTAL	**6**	**35**	**13**	**14**	**54**	**15**	**33**	**14**	**7**	**16**	**207**	**77**	**146**	**76**	**50**	**349**
MARINE BEADS																
Nassarius kraussianus		750*			26		1				777	18	25	29	5	77
MARINE SHELL																
Nassarius kraussianus												1	5	8		14
Donax serra				1	1	1	4	1	1	1	11	1	2			3
Patella argenvillei											1					
Haliotis spadicae	1	1									1					
Perna perna			1				1			1	2					
F. WATER SHELL																
Unio caffer		1	1		1	1	1	1		1	7	2	1	3	2	8
TOTAL	**1**	**2**	**2**	**1**	**2**	**2**	**6**	**2**	**1**	**3**	**22**	**4**	**8**	**11**	**2**	**25**
BONE																
Points					1			1			2				1	1
Awls								1			1					
Pendants							1				1					
Flakes			1	1			2				4			2		2
Polished															1	1
Cut														1	3	4
TOTAL			**1**	**1**	**1**		**3**	**2**			**8**			**3**	**5**	**8**
*Found with burial																

that observed at Melkhoutboom Cave (Deacon 1976), but the re-appearance of *N. kraussianus* shell at The Havens Cave is much earlier. It is possible that the The Havens Cave date is incorrect. A large number of *N. kraussianus* beads (730) were found with a burial. Ostrich eggshell beads and fragments were also present throughout the sequence, but only seven decorated pieces were found. Remains of ostrich eggshell water container apertures were only found in the Albany units. Beads and roughouts were more or less equally represented in both time periods, but were absent from some Wilton units. It is interesting to note that the units in the Wilton period which yielded the most roughouts (BOW, 9 and VOG, 15) were also the only other units which contained *N. kraussianus* beads.

Other artefacts

Thirteen pieces of pottery were found in the bedding unit. These include two rim pieces and one decorated piece. Only a few bone points, flakes and one pendant were recovered (Table 6).

DISCUSSION

The data from The Havens Cave generally supports observations made at other sites in the southern and eastern Cape proper. The bottom units at The Havens Cave, estimated at ca 10 500 BP, display a typical Albany stone tool tradition, consisting of large quartzite scrapers as the only formal tool. Four other sites, Melkhoutboom Cave (Deacon 1976), Rautenbach's Cave (Deacon & Brooker 1976), Kangkara Cave (Deacon 1982) and The Havens Cave were all occupied continuously from this period to possibly historical times. Paardeberg Cave was probably also occupied during the same period (unpublished report).

The mammal species captured in these units were similar to those from the overlying Wilton units, suggesting that the physical environment was also similar. The faunal remains were dominated by small species like *Raphicerus* sp. and *Procavia capensis*. This gives rise to the question whether there was any relationship between microlithic backed tools, such as

Table 4. Frequencies of stone artefacts from The Havens Cave.

	Wilton units											Albany units				
	BED	POS	OGA	WAG	BOW	WGA	VOG	KOW	GHA	SBA	TOTAL	OOA	BOA	GOW	ROL	TOTAL
WASTE																
Chips	149	1027	921	645	1166	408	1209	1828	692	722	8767	499	355	339	470	1663
Chunks	5	36	42	82	64	21	73	54	24	24	427	26	5	5	5	49
Cores	1	2	2	1	14		6	17	5		48	1	1	3	3	5
CRP	4	19	17	19	32	11	32	38	15	9	196	2		1	4	8
Flakes	115	597	750	539	1467	469	1515	2271	719	714	9158	699	514	590	669	2442
TOTAL WASTE	274	1681	1732	1286	2743	909	2835	4208	1455	1469	18592	1197	875	943	1152	4167
Waste as % of Grand Total	96,8	98,7	98,1	97,1	98,1	98,4	98,6	98,6	98,1	98,1	98,3	99,3	99,7	99,5	99,8	99,6
UTILIZED TOOLS																
Flakes	1	3	2	1	7	1	5	2	3	4	21	3	2	2	2	12
Other utilized tools																
Hammerstones					1					1	2		1	1	1	3
Hammer/rubbers								2			2					
Milled edge			1			1					2					
Ochre pencils	3										3					
TOTAL UTILIZED	4	3	3		8	2	5	4	3	5	37	3	3	3	3	12
Utilized tools as % of Grand Total	1,4	0,2	0,2		0,3	0,2	0,2	0,1	0,2	0,3	0,2	0,2	0,3	0,3	0,3	0,3
FORMAL TOOLS																
Scrapers	5	14	29	38	39	9	35	49	25	25	268	4		2		6
Adzes		1	1	1	2						5					
Backed blades						1					1					
Segments		4	1		1		1	1			5					
Misc. retouched			1		1	3		2			7	1				1
TOTAL FORMAL	5	19	32	39	46	13	36	52	25	25	292	5		2		7
Formal tools as % of Grand Total	1,8	1,1	1,8	2,9	1,6	1,4	1,3	1,2	1,7	1,7	1,5	0,4		0,2		0,2
GRAND TOTAL	283	1703	1767	1325	2797	924	2876	4264	1483	1499	18921	1205	878	948	1155	4186
OTHER																
Ochre	7	35	15	33	70	10	50	98	43	71	432	62	108	35	61	266
Shale		3	4	7	33	8	35	26	10	41	167	16	9	11	68	104
Crystals	1	6	1	19	6	21	21	5	5		85					
MSA flakes	1										1					

Table 5. Scraper length, width and height from the Wilton units at The Havens Cave.

		Length		Width		Height		W/L ratio
	f	Mean	SD	Mean	SD	Mean	SD	
POS	12	10,79	4,33	21,38	4,42	4,68	1,40	123,42
OGA	15	9,44	6,02	11,36	3,01	3,94	1,31	124,24
WAG	30	8,91	3,91	11,00	3,67	4,36	1,26	127,00
BOW	31	8,94	2,91	9,83	3,59	3,59	1,48	111,85
WGA	8	8,84	0,92	10,46	1,94	4,01	0,94	119,42
VOG	23	8,30	2,26	10,25	2,21	3,84	1,08	136,17
KOW	31	7,88	1,40	10,54	2,37	4,09	1,26	136,39
GHA	20	7,48	1,77	10,09	2,00	3,58	0,98	141,52
SBA	16	8,90	2,50	10,52	2,55	3,72	0,96	120,68

segments and hunting (see Wadley & Binneman 1995). Leslie-Brooker (1987) made a similar suggestion for Uniondale Shelter.

A wide range of plant species was exploited at The Havens Cave. Apart from the 'traditional' warmer month species, several colder month species were also present in the bedding units. These included plant species such as *Schotia latifolia* remains, of which the pods are available from April to August, *Oxalis stellata*, an underground bulb which flowers between April and June, *Hypoxis argentea* which flowers between June and November, seeds such as *Olea africana* (mature between March and

Table 6. Frequencies of pottery, leather and botanical artefacts from The Havens Cave.

	BEDDING UNIT
POTTERY	
Fragments	8
Rim	2
Body decoration	1
TOTAL	**11**
LEATHER	
Fragments	1
WOOD	
Pegs	1
Cut pieces	1
Shavings	*
TOTAL	**2**
REED	
Cut/Notched	1
CYPERUS	
Cordage	7
Matting	73
Netting	1
Cut/slit	1
TOTAL	**82**
SEED BEADS	
H. aristatus	1
OTHER INCLUSIONS	
Mastic	1
Glass beads	1
TOTAL	**2**

* Present in relatively large numbers.

July), *Euclea natalensis* (late autumn and winter months) and *E. undulata* (February to September). From this evidence it can be argued that groups stayed for extended periods at the cave, or even all year round. On the other hand, it is doubtful whether any one of these plant foods, or even a combination of them, could support a relatively large group of people for any length of time. None of these plant species occurred in the bedding unit in any significant quantities, and therefore it would appear that small groups most probably occupied the site occasionally for short periods. It is also possible that these species were collected at the very end or beginning of their cycle and therefore offer no explicit evidence for winter occupation of the site.

Cyperus usitatus and *Freezia* sp. accounted for the bulk of the geophyte remains, with little *Watsonia* sp. remains present. The former also dominated the geophyte remains at Scott's Cave (Wells 1965). At Melhoutboom Cave *C. usitatus* was found only in the top surface layers, which is equivalent in age to the Scott's Cave deposits (Deacon 1976:92). The limited time distribution of *C. usitatus* (past ca 2000 years) has given rise to speculation that there is a correlation between the collecting of the plant and the presence of pastoralists (Deacon 1993) and an indication of resource intensification (Hall 1990).

Unfortunately, the time distribution of *C. usitatus* cannot be tested at The Havens Cave. However, not all sites in the south-eastern Cape yielded *C. usitatus* remains during the past ca 2000 years, nor were *Watsonia* sp. the dominant geophyte collected (Binneman in prep.). Geophyte remains together with other food remains such as *Dioscorea elephantipes* and *Schotia* spp. clearly indicate that people during the past ca 2000 years exploited a wide range of food resources. This might also have been the case before ca 2000 BP.

This questions the above assumption of an correlation between *C. usitatus* and pastoralists. Furthermore, it also questions the statement that "... subsistence pattern ... by populations in the Cape Folded Mountain Belt was closely coupled to Watsonia ecology ... an excellent example of human adaptation to a particular plant type" (Deacon 1976:105).

The storage pit appeared to have contained mainly *P. capensis* seeds before it was filled-in with surrounding floor debris. 'Sealed' storage pits from other sites in the research area contained only *P. capensis* seeds. Storage pits at other sites in the southern and eastern Cape, Melkhoutboom Cave (Deacon 1976) and Boomplaas Cave (Deacon, H.J. 1979, 1995; Deacon, J. 1982), also contained *P. capesis* seeds.

These seeds were not only stored for their cosmetic value. Pappe (1868:3) reports that the kernel contains a fairly heavy oil which is edible, but somewhat purgative. The fruits are edible and can be made into beverages, vinegar and jelly (Palmer & Pitman 1972:1359). Wikar, a run away Swedish soldier who was the first European to journey along the Orange River between 1775-1779, noted that the tribes used the oil of *P. capensis* seeds instead of fat for rubbing themselves (Mossop 1935). They also roasted the seeds under the coals and crushed the shell to get to the kernel. These they ground to make a sweetly scented oil. He also mentions that it is also recommended as an external remedy for ringworm and baldness.

The raw materials from The Havens Cave supplied interesting information. Quartz crystals were highly preferred in the manufacture of formal stone tools during the Wilton period (the Albany layers yielded no crystals). A fair number of quartz crystals were found in all the layers, specially in the units regarded to be periods of increased social activities (units with relatively high numbers of ostrich eggshell remains and *N. kraussianus* beads, for example, BOW and VOG). Furthermore, at Paardeberg Cave in the Langkloof, some 40 km north-west of The Havens Cave, silcrete was a major raw

material (between 22% and 46%) (unpublished report), but here it was less than 0,5%. Silcrete was also virtually absent from other sites in the Baviaanskloof. This may represent a symbolic boundary between sites in the Langkloof and Baviaanskloof.

ENDNOTES

1. The region defined here as the south-eastern Cape includes the coastal and adjacent mountain regions between the Bloukranz River Mouth and Gamtoos River Mouth (Bruton & Gess 1988; Lubke *et al.* 1988). The area is intermediate to the southern and eastern Cape proper (previous geographical references have been obtained for discussion purposes)

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REFERENCES

Acocks, J.P.H. 1975. Veld types of South Africa. Pretoria: Botanical Survey of South Africa. Memoir No. 40.

Barnham, L.S. 1987. The bipolar technique in southern Africa: a replication experiment. South African Archaeological Bulletin 42:45-50.

Binneman, J.N.F. 1996. The symbolic construction of communities during the Holocene Later Stone Age in the south-eastern Cape. Unpublished D.Phil. University of the Witwatersrand.

Binneman, J.N.F. 1982. Mikrogebruikstekens op steenwerktuie: eksperimentele waarnemings en 'n studie van werktuie van Boomplaasgrot. Unpublished M.A. thesis: University of Stellenbosch.

Binneman, J.N.F. 1985. Research along the south-eastern Cape coast. In Hall, S.L. & Binneman, J.N.F. (eds). Guide to archaeological sites in the eastern and north eastern Cape. pp. 117-134. Grahamstown: Albany Museum.

Binneman, J.N.F. & Deacon, J. 1986. Experimental determination of use wear on stone adzes from Boomplaas Cave, South Africa. Journal of Archaeological Science 13:219-228.

Bruton, M. & Gess, F. 1988 (eds). Towards an environmental plan for the eastern Cape. Grahamstown: Rhodes University.

Cairns, P. 1976. A report on circular stone features associated with coastal shell middens at Cape St Francis. South African Archaeological Bulletin 30:36-39.

Chippendale, L.K.A. 1955. The grasses and pastures of South Africa. Parow: Central News Agency.

Deacon H.J. 1970. Two shell midden occurrences in the Tsitsikama National Park, Cape Province: a contribution to the study of the ecology of the Strandlopers. Koedoe 13:37-49.

Deacon, H.J. 1976. Where hunters gathered: a study of Holocene Stone Age people in the eastern Cape. Claremont: South African Archaeological Society Monograph 1.

Deacon, H.J. 1979. Excavations at Boomplaas Cave: a sequence through the Upper Pleistocene and Holocene in South Africa. World Archaeology 10:241-257.

Deacon, H.J. & Brooker, M. 1976. The Holocene and Upper Pleistocene sequence in the southern Cape. Annals of the South African Museum. 71: 203-214.

Deacon, H.J. 1993. Planting an idea: an archaeology of Stone Age gatherers in South Africa. South African Archaeological Bulletin 48:86-93.

Deacon, H.J. 1995. Two Pleistocene-Holocene Archaeological depositories from the southern Cape, South Africa. South African Archaeological Bulletin 50: 121-131.

Deacon, H.J. & Deacon, J. 1963. Scott's Cave: a Late Stone Age site in the Gamtoos Valley. Annals of the Provincial Museums 3:96-121.

Deacon, H.J. & Geleijnse 1988. The stratigraphy and sedimentology of the main site sequence, Klasies River, South Africa. South African Archaeological Bulletin 43:5-14.

Deacon, J. 1965. Cultural material from the Gamtoos River valley shelters (Andrieskraal 1). South African Archaeological Bulletin 20:193-200.

Deacon, J. 1969. Re-excavation and description of the Wilton Type-site, Albany District, eastern Cape. Unpublished M.A. thesis: University of Cape Town.

Deacon, J. 1982. Later Stone Age in the southern Cape. Unpublished Ph.D. thesis: University of Cape Town.

Deacon, J. 1984. The Later Stone Age people and their descendants in southern Africa. In Klein, R.G. (ed.) Southern African prehistory and palaeoenvironments. pp. 221-328. Rotterdam: Balkema.

FitzSimons F.W. 1923. The cliff-dwellers of Tsitsikamma. South African Journal of Science 20:541.

FitzSimons F.W. 1926. The cliff-dwellers of Tsitsikamma: results of recent excavations. South African Journal of Science 23:813.

Fox, F.W. & Norwood Young, M.E. 1982. Food from the veld. Johannesburg: Delta Books

Hall, S.L. 1990. Hunter-gather-fishers of the Fish River Basin: a contribution to the Holocene prehistory of the eastern Cape. Unpublished thesis: University of Stellenbosch.

Hall, S.L. & Binneman, J.N.F. 1987. Later Stone Age burial variability in the Cape: a social interpretation. South Africa Archaeological Bulletin 42:140-152.

Hewitt, J. 1925. On some stone implements from the Cape Province. South African Journal of Science 22:441-453.

Laidler, P.W. 1947. The evolution of Middle Palaeolithic technique at Geelhoutboom, near Kareedouw, in the southern Cape. Transactions of the Royal Society of South Africa 31:283-313.

Leslie Brooker, M. 1987. An archaeological study of the Uniondale Rock Shelter. Unpublished M.A. thesis: University of Stellenbosch.

Lubke, R.A., Gess, F.W. & Bruton, M.N. 1988. (eds). A field guide to the eastern Cape. Grahamstown: Wildlife Society of southern Africa.

Mossop, E.E. 1935. The Journal of Hendrik Jacob Wikar (1779). Cape Town: Van Riebeeck Society.

Palmer, E. & Pitman, N. 1972. Trees of southern Africa. 3 Vols. Rotterdam: Balkema.

Pappe, L. 1868. Florae Capensis Medicae Prodomus. Cape Town.

Rudner, J. 1968. Strandloper pottery from South and South West Africa. Annals of the South African Museum 49:441-663.

Rust, I. & Illenberger, W. 1989. Geology and geomorphology of the Baviaanskloof. In Kerley, G.I.H. & Els, L.M. (eds) The Kouga-Baviaanskloof Complex: conservation status and managment problems. Port Elizabeth: University of Port Elizabeth.

Singer, R. & Wymer. J. 1982. The Middle Stone Age at Klasies River Mouth in South Africa. Chicago: University of Chicago Press.

Thackeray, J.F. & Feast, E.C. 1974. A midden burial from Cape St Francis, eastern Cape Province. South African Archaeological Bulletin 29:92.

Vlok, J.H.J 1989. On the floristics and ecology of the flora of the Kouga-Baviaanskloof complex. In Kerley, G.I.H. & Els, L.M. (eds) The Kouga-Baviaanskloof Complex: conservation status and managment problems. Port Elizabeth: University of Port Elizabeth.

Wadley, L. & Binneman, J. 1995. Arrowheads or pen knives? a microwear analysis of mid-Holocene stone segments from Jubilee Shelter, Transvaal. South African Journal of Science 91:153-155.

Wells, M.J. 1965. An analysis of plant remains from Scott's Cave in the Gamtoos Valley. South African Archaeological Bulletin 20:79-84.