

RESULTS FROM A TEST EXCAVATION AT KLEINPOORT SHELTER IN THE, BAVIAANSKLOOF, EASTERN CAPE PROVINCE*

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ABSTRACT

This paper reports the results from a test excavation conducted at Kleinpoort Shelter during the early 1980s. The site yielded well-preserved botanical remains dating to the last ca 2000 years BP. A small storage pit was located at the shelter and broken arrow shafts were also found. The food and cultural remains suggest that the shelter was used by small groups for short visits during early/mid summer to exploit available patches of *Cyperus usitatus*.

INTRODUCTION

Kleinpoort Shelter is one of several small sites excavated during the early 1980s as part of a long term project to investigating hunter-gatherer and pastoralist socio-economic patterns during the Holocene Later Stone Age in the south-eastern Cape¹ mountains. The site is situated in the Baviaanskloof, a narrow valley between the Baviaanskloof and Kouga Mountain ranges (Fig. 1).

As outlined elsewhere (Binneman 1997), the most striking aspect of the archaeological scenario in the Baviaanskloof/Kouga Mountain ranges is the fact that a large number of caves and shelters contain well-preserved botanical remains. This is especially true for the majority of small shelters in the region. However, virtually all of these deposits date mainly within the past ca 2000 years. At sites with longer sequences, only unidentifiable carbonized and/or humified remains preserved in the older deposits, which make direct comparison of subsistence patterns between deposits younger than ca 2000 and older deposits virtually impossible. For this reason the project concentrated on small shelters with well preserved botanical remains dating to the past ca 2000 years.

The sampling methods for all the sites were conducted similar those described at The Havens Cave (Binneman 1997). The detail site analysis will be published elsewhere.

PRESENT DAY ENVIRONMENT

The Baviaanskloof is the second intermontane valley from the coast and runs parallel to the Langkloof (west to east)

(Fig. 1.). The narrow valley is separated from the Karoo by the Baviaanskloof Mountains and by the Kouga Mountains from the Langkloof. The valley is drained by the Baviaanskloof River which joins the Kouga River at the eastern end of the valley.

The valley and surrounding mountains are 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, renosterveld, spekboomveld, Karoo scrubland, grassland and remnants of Knysna forest in the deeper valleys (Vlok 1989). The region experience 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.

KLEINPOORT SHELTER

Kleinpoort Shelter (33.33S; 24.01E) is situated in a narrow gorge in the Baviaanskloof Mountains on the farm Kleinpoort some 8 km from Studtis (Fig. 1 & 2). A small stream separates it from another shelter on the opposite side of the gorge which also contained shallow occupational deposit. The shelter formed in a fold facing north-east. It measures 13 m along the dripline, 5 m deep and the roof is some 3 m high at the entrance (Figs 3 & 4). The surface of the deposit is about 2,0 m above the stream bed with bedrock exposed in the northern part of the shelter. The archaeological deposit was approximately 0,40 m deep with 0,10 m of well-preserved patches of

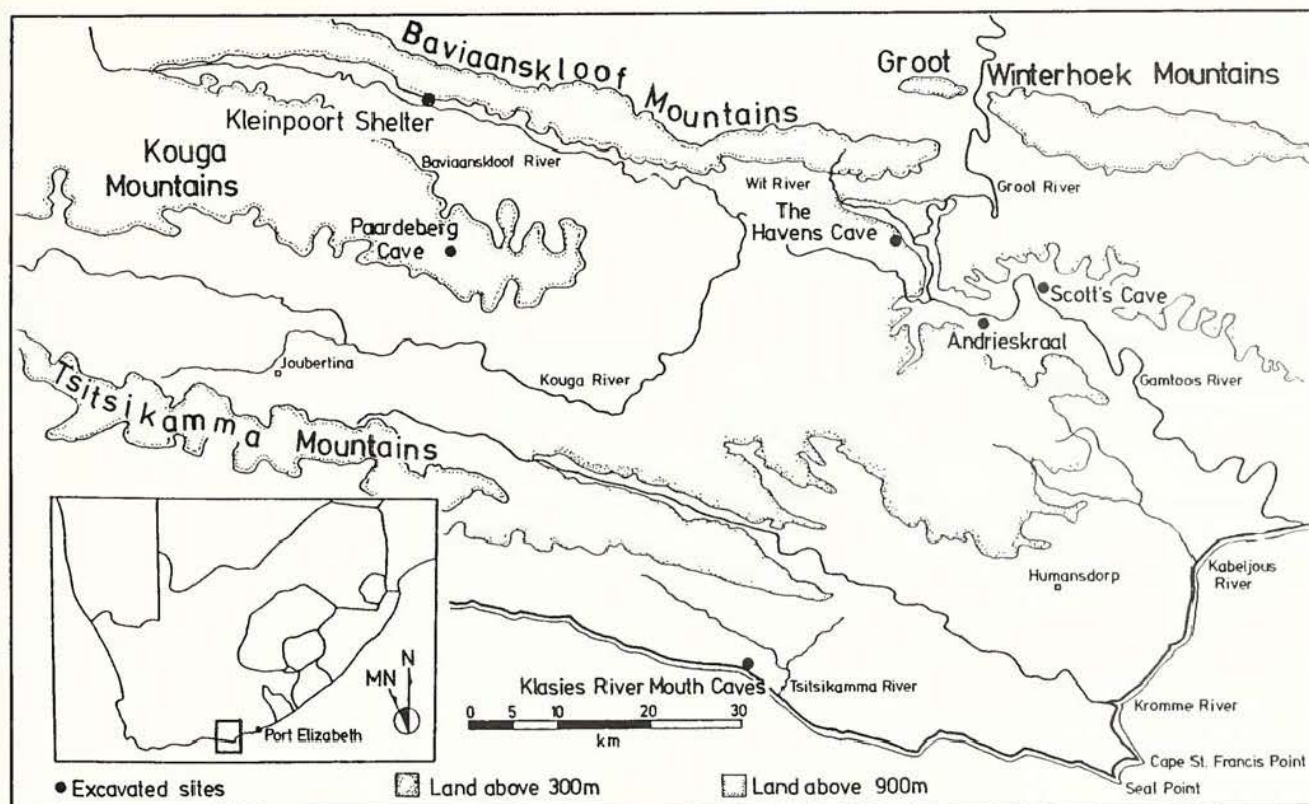


Fig. 1. Map of the south-eastern Cape and the location of Kleinpoort Shelter.

plant remains underlying the surface dust. The deposits underlying the plant unit had not been excavated, but evident from a small sampling pit were three layers of orange, brown and black ashy deposits. The site was not dated.

EXCAVATIONS

Three square metres were excavated of which a large area had been disturbed by nests of burrowing rodents (Fig. 4). A small grass lined storage pit, approximately 0,30 m in diameter and 0,15 m deep, surrounded by compacted plant remains, was located in square J10 towards the entrance of the shelter. It would appear that the pit had been emptied of its contents because it was loosely filled-in with a variety of food waste and cultural material. *Cyperus usitatus* corm tunics were prominent remains in the pit.

The remainder of the square consisted of grey ashy deposits and botanical remains, which represented disturbed soils from rodent burrows in the adjoining square (J11). Most of this square had been disturbed by burrowing. Square J12 consisted of patches and circular hollows of compacted plant material surrounded by soft, sandy loose grey soils mixed with plant material. Next to one of these plant filled hollows, a broken arrow shaft and several fragments of reed were located. A second, smaller, grass-lined storage pit, was also found in J12.

Although the cultural and faunal samples from Kleinpoort Shelter were small, and provided limited information, the botanical remains provided sufficient

information to gain some insights into the subsistence strategies during the past ca 2000 years.

SUBSISTENCE AND DIET

Botanical remains

In general a similar range of plant remains were recovered from Kleinpoort Shelter as reported from The Havens Cave (Binneman 1997, table 1). The bulk of the botanical remains analysed consisted of grasses, sticks, twigs and bark. The most common grass identified from the inflorescence was *Themeda triandra* ("rooigras"/red grass) which flowers between September and December (Chippendale 1955).

Cyperus usitatus ("Boesmanuintjie") accounted for the bulk of the underground plant foods. The bulbs are edible and Burchell (1824) observed Bushmen collecting these bulbs, and roasting them slightly before eating them. These bulbs are also eaten by children and adults in Lesotho (Aston 1939), but causes constipation if taken to excess. The bulbs can also be ground to meal and cooked as porridge in time of famine (Jacot-Guillarmod 1971: 422). According to Sparrman (1785) and Barrow (1806), *C. usitatus* played an important role in the social and economic life of the Khoekhoen. Important time events were measured by these plants. Their New Year, age and other events were marked by the appearance of the plants as well as the time of gathering, known as "uintjestyd".

Small quantities of other geophytes, such as *Watsonia* sp., *Moraea* sp., *Freezia/Tritonia* sp. and *Hypoxis* sp. were also recorded.

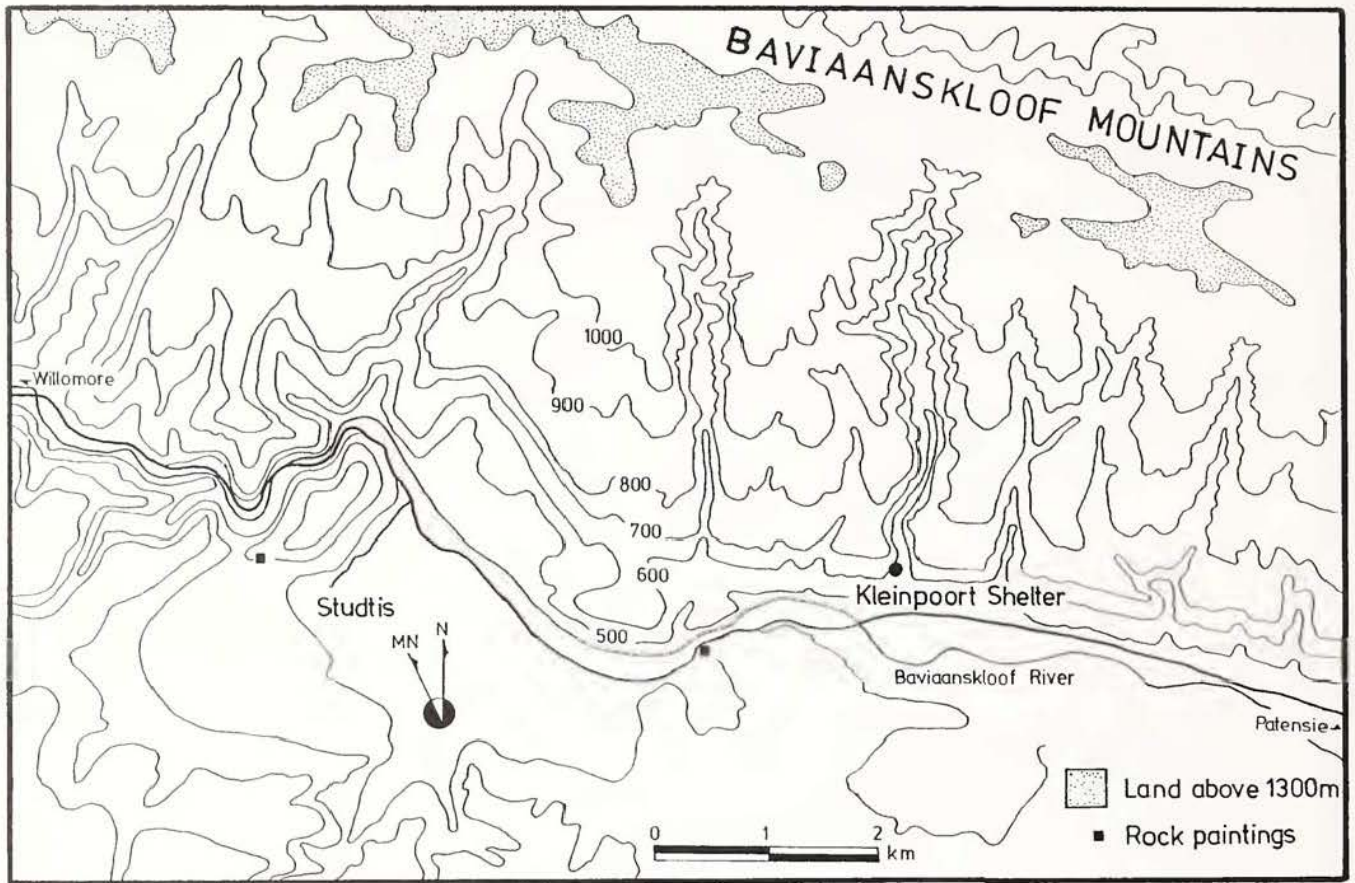


Fig. 2. Location of Kleinpoort Shelter.



Fig. 3. View of Kleinpoort Shelter.

Schotia sp. (Karoo boer-bean) pods were well-represented in all the samples and must have been an important food resource. Only pod fragments were recovered and it is not known whether both or only one species were present. *S. afra* var. *afra* is edible and available between October and March (Coats Palgraves 1977:275). Wikar (1779) reported that the Bushmen near the Augrabies Falls cooked the beans of *S. afra* var. *angustifolia* so that the outer red skin could be peeled off, because the skin is somewhat astringent. They also roasted the beans under the coals and pounded them into

meal, which they cooked. Wikar also mentions that the beans tasted pleasant when eaten green. Xhosa eat the seeds when still partly green, or roast the mature seeds in the fire and grind them into meal. The early European settlers also ate the beans (Watt & Breyer-Brandwijk 1962:645). *S. latifolia* pods are available between April and August (Coates Palgrave 1977:277) and are used in a similar manner as *S. afra* (Watt & Breyer-Brandwijk 1962:646).

Other edible plants included *Dioscorea elephantipes* ('hottentots bread') and *Carpobrotus edulis* ('hottentots fig'). *D. elephantipes*, also known as elephant's foot, was eaten by Khoekhoen. They cut the inner white flesh of the tuber into strips which were eaten after being roasted on the coals (Smith 1966).

Most of the seed remains found at Kleinpoort Shelter were also present at The Havens Cave. The most abundant seed remains recovered were *Pappea capensis* and *Rhus* sp. Many of the *Rhus* sp. seeds still had the outer skin attached to them, which may suggest that the deposits are not of great antiquity. The only new seed remains were *Acacia karoo* Hayne (sweet thorn) *Sideroxylon inerme* and *Grewia robusta* (karoo cross berry).

A few *Opuntia ficusindica* seeds (prickly pear) were also recovered from J12. *O. ficusindica* originated from Central Mexico and had already reached pest status in the Eastern Cape Province by 1750 (Stirton 1978:112). The

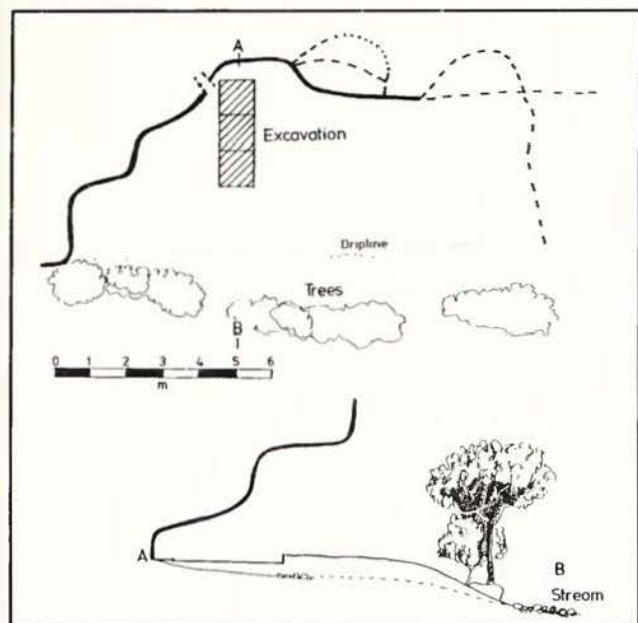


Fig. 4. Plan and excavation at Kleinpoort Shelter.

fact that the seeds were not present in the bulk samples, but found in the loose plant rich deposits towards the rear of the shelter, suggests that they were introduced to the site in recent times by baboons or humans.

The *A. karroo* seeds probably entered the shelter with the fire wood (it is known to be an excellent fuel). However, the remains may also suggest other uses for this tree. The gum of the *A. karroo* tree is edible and can be used as an adhesive (mastic?). The bark makes good rope and can also be used for tanning. The pods are available from January onwards (Coates Palgrave 1977:241). Not much is known of *G. robusta*, but the fruits mature between March and August (Coates Palgrave 1977:579).

Among the medicinal plants recovered were *Boophone disticha* and *Gasteria* sp. *B. disticha* is probably the most widely used medicinal plant among indigenous people in the Eastern Cape. Thunberg (1795) reported that the Bushmen and Khoekoen used the inner leaves as a source of poison for their arrows. The Xhosa use the dry leaves as a dressing after circumcision and to treat boils.

The use and economic value of *Gasteria* sp. is unknown among the Khoesan people, but some Bantu-speakers use the plant to treat paralysis and eat the leaves as protection against anthrax infected meat (Watt & Breyer-Brandwijk 1966:700).

Faunal remains

The mammal remains consisted mainly of small animals such as dassie, mole, hare, klipspringer and grysbuck, suggesting a trapping/snaring rather than a hunting strategy (Tabel 2).

The only other food remains recovered were a few fragments of tortoise, other reptile (possibly snake), bird, freshwater mussel and a few marine shell (possibly *Perna perna*).

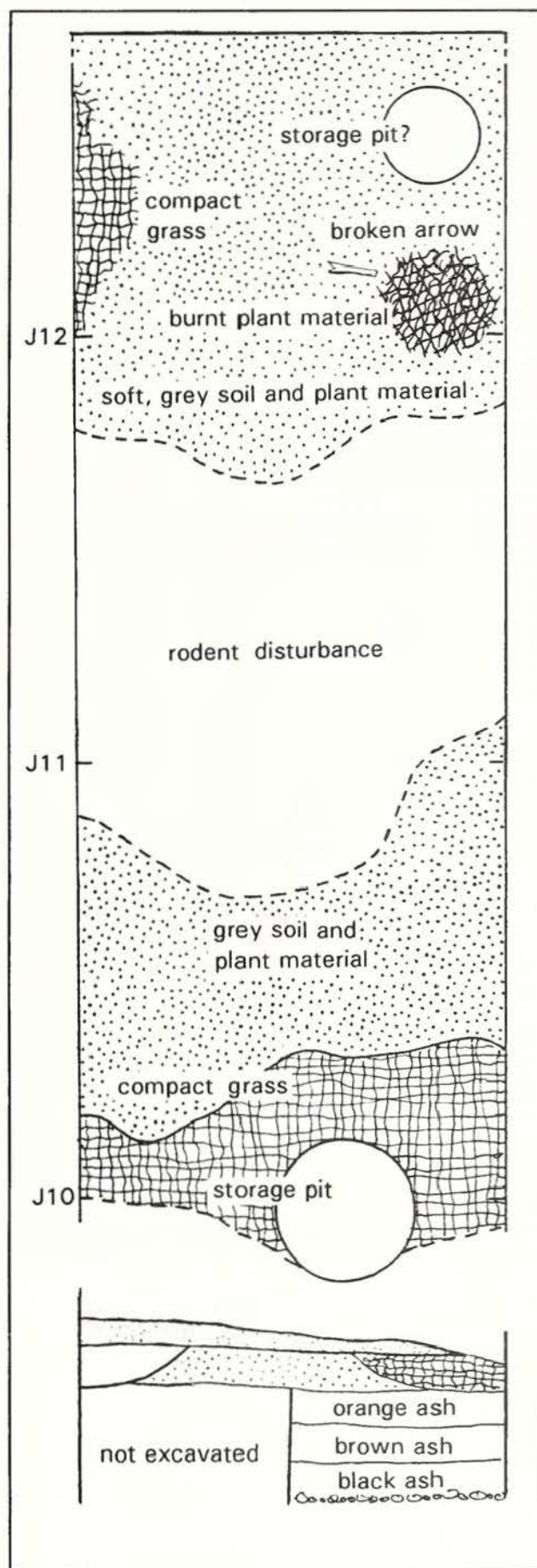


Fig. 5. Plan and section drawings of the excavations.

Table 1. Analysis of bulk samples of plant remains from Kleinpoort Shelter.

	Storage pit	Bedding		Storage pit	Bedding
WEIGHT			SEEDS AND FRUITS		
<u>Unsieved</u>	926,2g.	6326,2g	<i>Schotia</i> sp.pods	6,0	12,6
1mm mesh	344,4g.	1402,6g	<i>Pappea capensis</i>	5,7	13,4
3mm mesh	272,1g.	991,7g	<i>Grewia occidentalis</i>	-	0,2
			<i>Diospyros</i> sp.	0,3	*
NON BOTANICAL			<i>Rhus</i> sp.	0,4	1,8
Waste stone	72,2	270,5	<i>Cissampelos capensis</i>	*	*
Stone tools	1,5	12,5	<i>Acacia karoo</i>		
Pottery	-	1,0	pods	0,1	-
Marine shell	0,1	-			
Bone	1,2	5,6	EDIBLE AND MEDICINAL		
Bone tools	-	0,3	<i>Cyperus usitatus</i>	11,7	20,6
Hide and hair	*	-	<i>Freezia</i> sp.		
Insects	0,3	0,8	corm tunics	-	*
Earth lumps	2,2	-	<i>Hypoxis</i> sp.		
			contractile roots	0,7	0,3
PROCESSED PLANT MATERIAL			<i>Boophone disticha</i>	-	0,6
REEDS	0,3	-	<i>Dioscorea elephantipes</i>	1,0	6,6
			<i>Carpobrotus edulis</i>	-	2,3
<i>CYPERUS TEXTILIS</i>	0,5	0,4	<i>Gasteria</i> sp.	2,8	5,9
Cordage	-	0,3			
Matting	0,2	-	LEAVES	3,1	3,8
WOODEN ARTEFACTS			OTHER INCLUSIONS		
Shavings	1,3	3,7	Charcoal	11,4	25,8
			Twigs and bark	36,4	46,2
GRASSES			Thorns	*	-
Lining	28,8	-	Moss	*	-
Stems and bases	0,3	16,7	Misc. unidentified	4,5	1,1
INFLORENCENCES			BOTANICAL ARTEFACTS		
<i>Themeda triandra</i>	*	*	Tied plant bunches	-	2,7

* Present

CULTURAL MATERIAL

Lithic artefacts

Apart from one utilized chalcedony flake and a relatively high number of quartzite flakes (91) no formal tools were found (Table 3). Surprisingly no ochre was recovered from the site either.

Non-lithic artefacts

Botanical artefacts

A small number of botanical artefacts were recovered from the excavation (Table 4). This included cordage and matting made from *Cyperus textilis*, worked wood, wood shavings, a wooden linkshaft, arrow shafts, bone awl and seed beads (Figs 5 & 6).

The two reed arrow shafts were an interesting find, because only a few portions of arrows have been reported from southern Africa (Clark & Walton 1962; Parkington & Poggenpoel 1971; Cooke 1974; Deacon 1976; Wadley 1979; Mazel 1992). An almost complete arrow shaft and three snapped shafts were reported from Faraoskop Rock Shelter in the Western Cape Province (Manhire 1993).

The two broken arrow shafts from Kleinpoort Shelter probably represent the same arrow (Fig. 5). Both pieces are approximately 17 cm long and broken at the one end. One shaft is notched at the proximal end and the other has a neatly prepared (ring-cut) socket for a linkshaft at the distal end. There is a black residue around the socket with fine line imprints, which indicate that it carried binding of some sort.

Several other pieces of reed with cut marks were also recovered. Wooden artefacts included a linkshaft, well-preserved fire stick, wood fragment with cut marks and wood shavings. The wooden linkshaft (Fig. 5) found in J11 fits the socket of the arrow shaft, but may not have been part of that specific arrow.

Six *Hypodiscus aristatus* seed beads were recovered. A similar bead was found at The Havens Cave (Binneman 1997) and subsequently many more were found at other sites in the region. It would appear that this seed bead is restricted to the Baviaanskloof/Kouga region because it has not been recorded elsewhere.

A peculiar find were six flat, round wads of fine grass and other plant material. The use of these artefacts is not known.

Table 2. Preliminary count of faunal species from Kleinpoort Shelter.

MAMMALS	
Cynictus penicillata	3
Procavia capensis	7
Raphicerus melanotis	2
Oreotragus oreotragus	1
Bathyergus sullius	2
Lepus sp.	1
Bovidae - general	
small medium	1
large medium	1
Total	18
REPTILES (tortoise)	
Other reptiles	*
BIRD	
	*
MARINE SHELL	
<i>Tricolia capensis</i>	1
Total	1
FRESHWATER SHELL	
<i>Unio caffer</i>	1
* Present	

Table 3. Frequencies of stone artefacts.

WASTE	
Chips	
Quartz	9
Quartzite	92
Chunks	
Quartzite	2
Cobble cores	2+
Flakes	
Quartz	2
Quartzite	91
Total	198
UTILISED	
Flakes	
Silcrete	1
Total	1
+ Ochre stained	

Bone and shell artefacts

Few bone and shell artefacts were recovered (Table 4). These included a bone awl, a pendant made from tortoise shell, three ostrich eggshell beads and two *Nassarius kraussiana* beads.

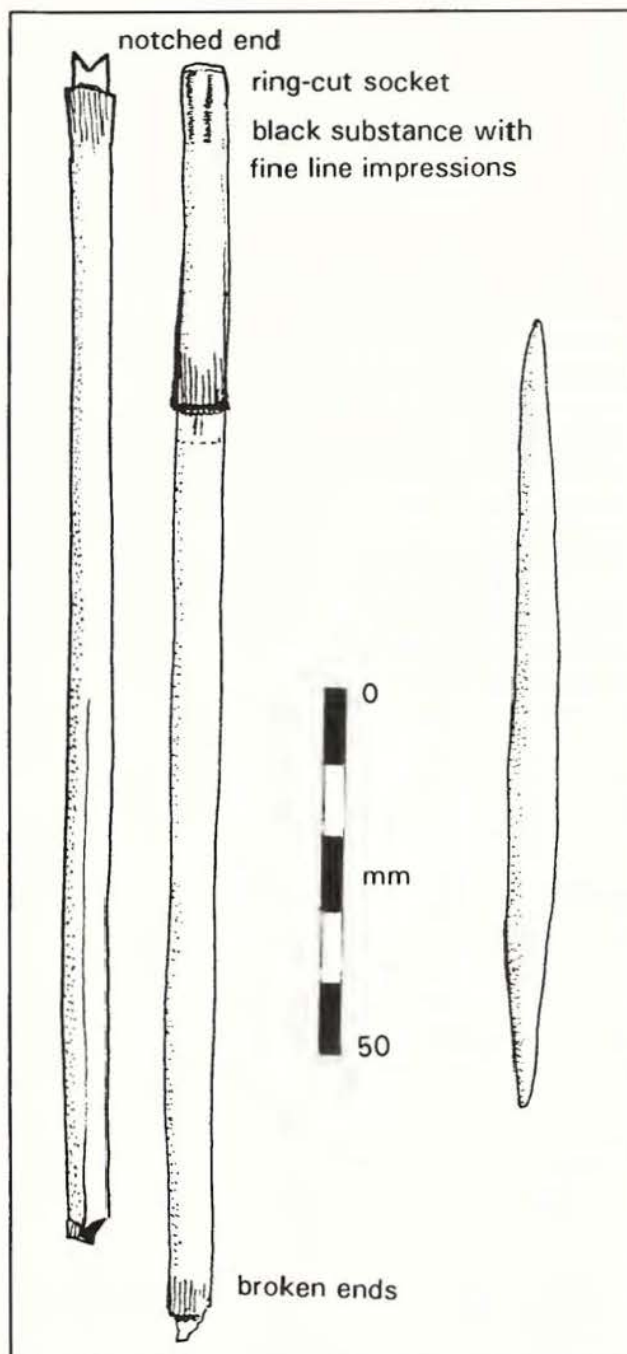


Fig. 5. Broken reed arrow shafts and wooden link shaft.



Fig. 6. Broken arrow shaft.

Table 4. Frequencies of pottery and botanical artefacts.

POTTERY	
Fragments	16
Rim	1
Lugs	1
Total	18
WOOD	
Linkshafts	1
Fire drills	
male	1
Cut pieces	1
Shavings	*
Total	3
REED	
Arrowshafts	2
Cut/notched	1
Total	3
CYPERUS TEXTILIS	
Cordage	3
Matting	5
Cut/slit	10
Total	18
SEED BEADS	
<i>H. aristatus</i>	6
OTHER ARTEFACTS	
Plant bunches	6
OTHER INCLUSIONS	
Mastic	1
Glass beads	1
Total	2

Pottery

Eighteen pieces of pottery were found which included a rim piece and a lug.

Other artefacts

A single green glass bead was found which may have been introduced to the shelter in historic times.

DISCUSSION

The botanical remains recovered from Klein Poort shelter, especially the relatively large quantity of *C. usitatus*, suggests that the site was occupied for short periods of time, possibly by small family size groups. These stays coincided with the availability of *C. usitatus* during the warmer months of the year.

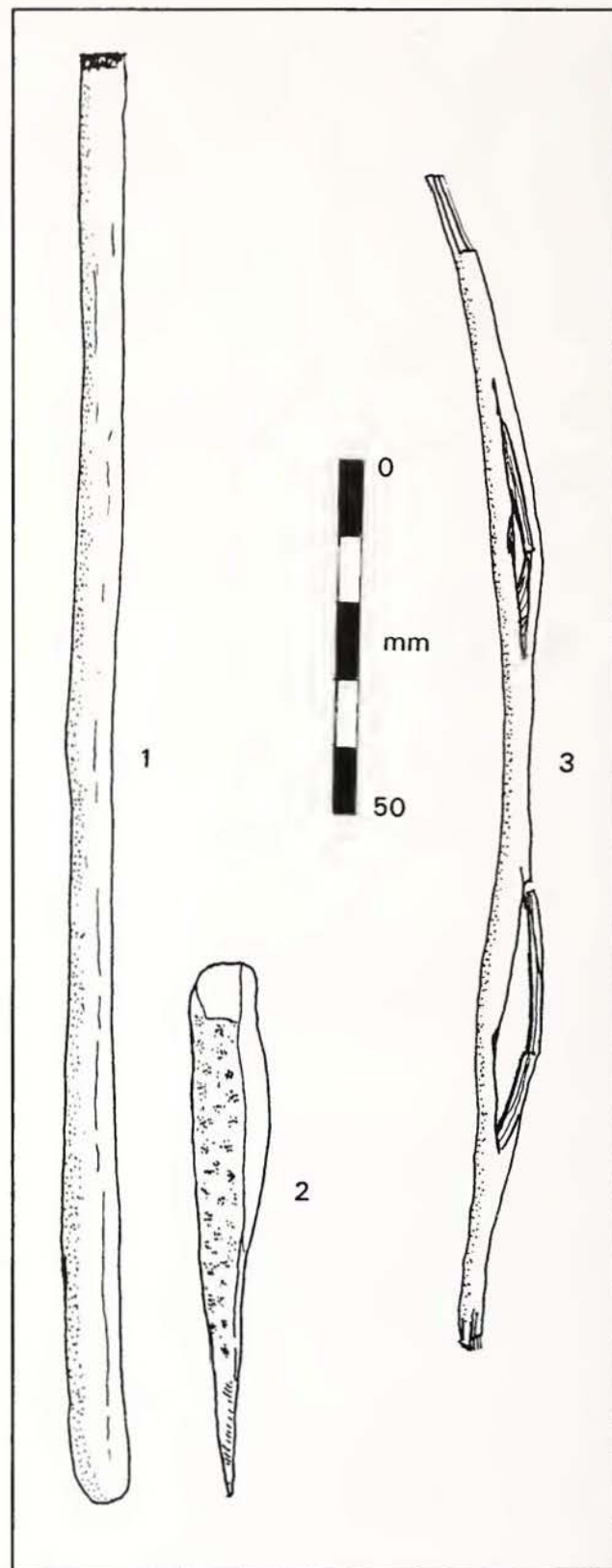


Fig. 8. 1, fire stick; 2, bone awl; 3, split *C. textilis*.

The relatively few small mammals captured and material culture remains found at the site, together with the absence of items such as formal stone tools, shell ornaments and unfinished OES beads also support this assumption. The broken arrow shafts and wood shavings

indicate that certain manufacturing and maintenance activities of equipment took place at the site during the short visits. This suggests that the shelter was most probably a base camp for small family groups during the dispersal phase or hunting parties when they visited the valley floor.

It may be speculated that Kleinpoort Shelter and other small shelters with similar occupational deposits in the Baviaanskloof valley indicate that hunter-gatherer groups became smaller and more mobile during the past ca 2000 years, at least at certain times of the year. This enabled relatively small groups to target and utilized patches of small food parcels such as *C. usitatus* for longer periods and more effectively than would be the case with large groups. The reason for this is not clear, but it may be related to greater pressure on existing resources due to a re-arrangement of populations in the south-western Cape, which took place with the settlement of the Khoekoen pastoralists in the region ca 1800 BP (Binneman 1996).

Endnote

1. Cape St Francis/Tsitsikamma coast and the adjacent Kouga/Baviaanskloof Mountain complex.

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