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FARM KLEINRIVIER 178
KOUKAMMA MUNISIPALITY, EASTERN CAPE PROVINCE
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Johan Binneman
Department of Archaeology
Albany Museum
Somerset Street
Grahamstown
6139

ARCHAEOLOGICAL INVESTIGATION OF KLEINRIVIER SHELTER

Background

The small shelter is situated on the farm Kleinrivier some 30 km north of Joubertina in the Onder-Kouga region. The site is located some 100 m above the Kleinrivier valley in the foothills of the Kouga Mountains, facing in a south-west direction.

The shelter formed along a fold in Witteberg quartzite and measures some 22 m long, 8 m deep and the roof some 10 m high (Fig. 1). There are only a few very faded paintings visible, of which two are hand prints. Most of the floor is well protected by a layer of loose roof gravel and grit.

Although the shelter is south-west facing with a high roof, it is well-protected against the elements. The shelter is exposed to full sunshine from noon, which contributed to the organic remains being well-preserved in the surface units.

Excavations stratigraphy and dating

It was mentioned in the previous report that it would appear that in general, relatively little archaeological material was recovered throughout the excavation (*i.e.* per volume of excavated deposit - in comparison with other sites in the region). This may suggest that the shelter was occupied mainly by small groups through time. In order to enlarge the sample, a further four squares were excavated (Fig. 1). Of these, three were only between 0,30 - 0,60m deep and one reach down to 2,0m. One square was almost completely destroyed by a modern day post hole, bringing the total of destroyed excavated squares to two from the total number of nine squares excavated at the site. Large blocks from the roof, prevented much excavations to take place in another square.

The surface units, top 10-15 cm of the excavation, consisted of hollows filled with well-preserved or humified plant material, ash features of different colours, textures and densities, redistributed ash and sterile roof grit/gravel lenses (Fig. 2). This horizontal built-up of occupational deposits were vertically penetrated by numerous man-made disturbances, such as shallow hollows, storage hollows and postholes. Some of the hollows were lined or filled with well-preserved plant material while other disturbances were filled with roof grit/gravel and blown in plant material. On average the postholes and storage pits reached down to between 25-30 cm deep. Postholes were usually 10-12 cm wide while some pits revealed diameters up to 50 cm. Several of these features usually occurred in a square and made excavation of the deposits difficult. The surface deposits were not radiocarbon dated, but the presence of pottery suggests an age of less than 2000 bp.

A thick accumulation of roof gravel and grit between 10-15 cm thick separated the surface units from the next underlying occupational deposits. Underlying the sterile roof debris was a series of lenses of carbonised plant material, ash, layers of sterile roof grit, pits, post hole and other disturbances, 50-60 cm thick. These deposits rested on a thick yellow/white sterile roof gravel and grit floor. The bottom 15 cm dates to 10 770 BP (Pta-8597), which represent the Albany time period.

From this time period to bedrock, some 1,20 m, the deposits consisted of thick layers of sterile roof gravel and grit and occasional thin black, white or red-brown ashy lenses. Two dates were obtained form carbonised lenses, one at 1,60m and another at 1,80m above a rock fall/roof gravel, presumed to be close to bedrock. The former dated to 15 900 BP (Pta-8596) and the latter to 17 800 BP (Pta-8615). The stone tool assemblages from the these bottom units comprised of small bladelets manufactured of silcrete and suggests a Robberg Industry. This represent the first inland Robberg assemblage reported between Boomplaas Cave in the west and Melkhoutboom Cave in the east.

Subsistence and diet

Plant material

The bulk of the plant remains from Kleinrivier Shelter comprised mainly grass, twigs, bark and leaves. Underground food remains included *Freezia/Babiana* spp. and *Moraea* spp. *Watsonia* sp. was absent from the site. Other food remains included seeds such as *Pappea capensis*, *Podocarpus*, and *Schotia* sp. pods. *Boophane disticha* was the only medicinal plant recovered.

Mammal remains

In general all units, excluding BCP, RBBA and RA, yielded low quantities of vertebra remains. The analysis of the mammal remains for one square was undertaken by J. Brink from the National Museum, Bloemfontein (Table 1). Unfortunately the results of the lower units of the excavation is not available yet (older than 15 000 bp).

The remains from the site were represented by species found at other sites in the region for corresponding time periods. The only exception is the extinct goat-like bovid found in the layers older than 10 000 bp.

Cultural remains

Stone artefacts

The raw materials used for the manufacturing of stone tools at the shelter, tell an interesting story (Table 2). Quartz, which is one of the dominant raw materials used during Wilton times at all sites in the region, is virtually absent from the Albany and Wilton units, but show a slight increase in the very surface unit (top 10 cm). Quartz was the dominant raw material around 15 900 bp. and again just before 10 770 bp, but the latter may also be due to small samples.

Quartzite was dominant in the bottom units around 17 800 bp, but then decreased sharply and was replaced first by quartz around 15 900 bp and then both were replaced by silcrete somewhere between 15 000 and 11 000 bp. Quartzite re-appear in the Albany units as the dominant raw material while both quartz and silcrete decreased to low percentages.

Apart from a few scrapers in the Wilton units, HPA and SBA, no other formal tools were found.

Pottery

Pottery were found only in the surface TAP unit and included a few shards, a rim fragment and a lug (Table 3).

Botanical artefacts

Botanical artefacts were only found in the top unit, TAP. This included a few wood shavings, cut pieces, fire drills, and *C. textilis* cordage and mat fragments (Table 3).

Ostrich eggshell remains

Ostrich eggshell fragments and artefacts were present in the Wilton and Albany units, but almost absent from the Robberg period (Table 3).

Marine shell

Marine shell was present in the Wilton and Albany units but no shell was found after 10 770 bp. It would appear that the sea level dropped outside the seasonal range of the inland groups and that this resource was not valued as a raw material for ornaments either. Only two marine shell species were found throughout the Wilton and Albany units, *Donax serra* shell and *Nassarius Kraussianus* beads (Table 3).

Discussion

Kleinrivier Shelter is a small shelter, but surprisingly displayed a deep and long time sequence of some 18 000 years. However the density of archaeological material throughout the sequence was very low when compared with other sites in the region. This may indicate that the site was occupied by small groups for short periods of time, for example during the dispersed phase of hunter-gatherer population's social interaction cycle in this specific region.

The Albany units, BCP and RBBA may be the exception, because of the relatively high frequencies of ostrich egshhell fragments and unfinished beads recovered. The latter may suggest an aggregation phase, as bead making activities usually takes place during these periods.

An interesting aspect is that *Nassarius Kraussianus* beads were recovered from all the Albany and Wilton units. At some sites in the southern and eastern Cape these shell/beads were 'absent' from the early and middle Wilton periods.

The raw materials used for the manufacturing of the lithic artefacts, indicate that preferences towards quartz, quartzite and silcrete changed several times through time. The analysis of the mammal fauna indicate that raw material or artefact type did not effect the type of animal species acquired through time. Although the reason(s) for the above is not entirely clear, it could be assumed that social actions, such as group identity signalling and territorial management played an important role in the choice of raw materials.

Fig. 1. Section drawing of the stratigraphy at Kleinrivier Shelter.

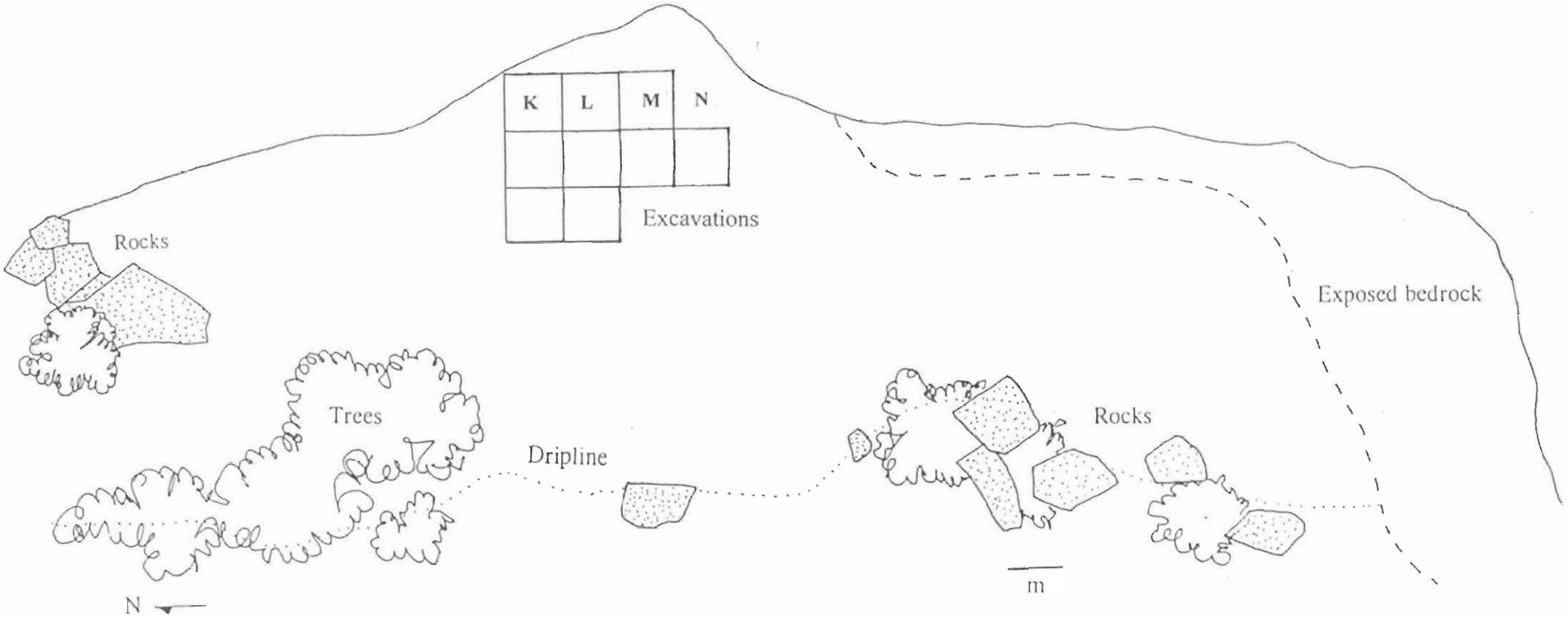
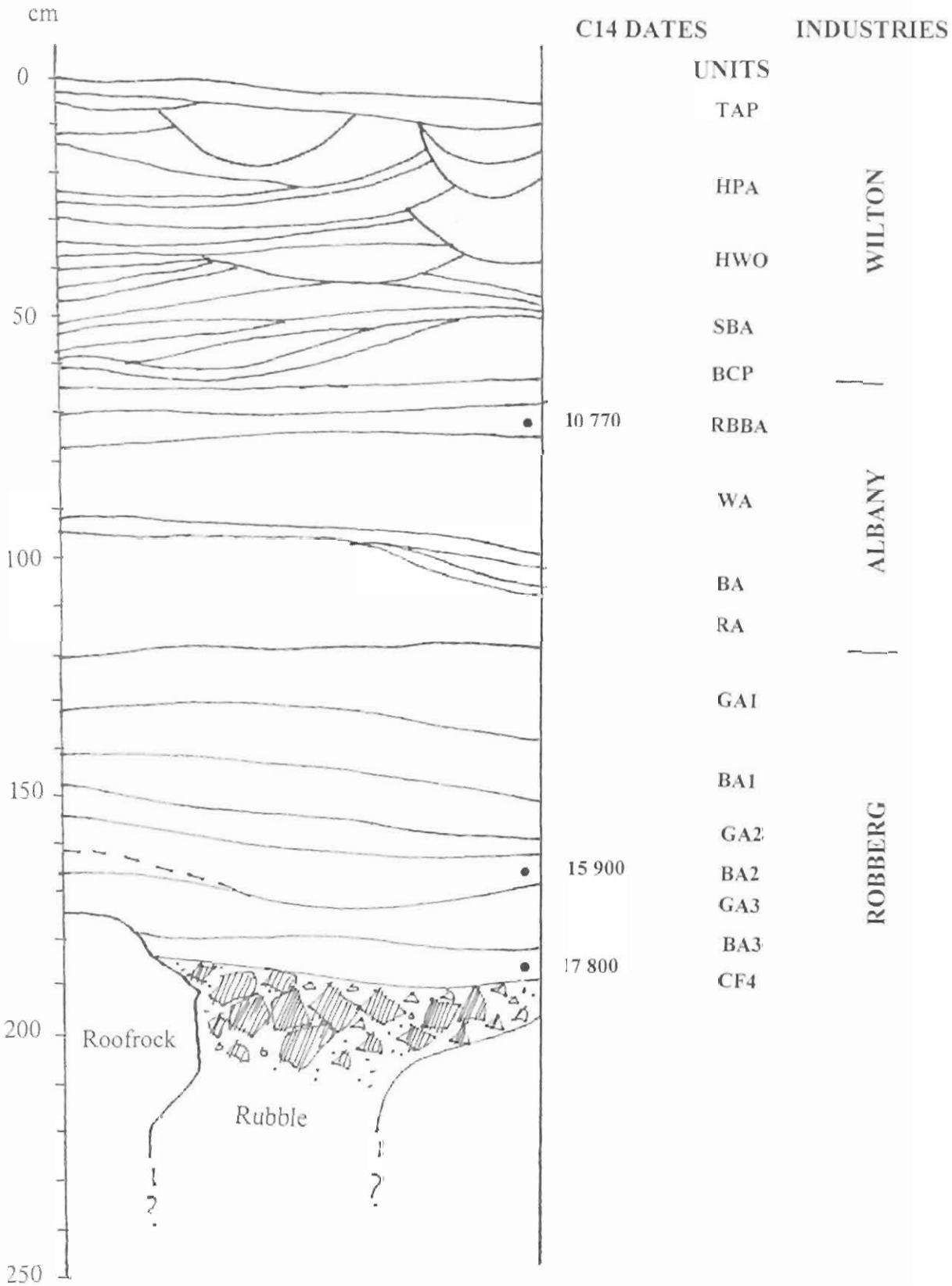


Fig. 2. Map and location of the excavations at Kleinrivier Shelter.



Tabel. 1. Mammal remains (MNI's) from Kleinrivier Shelter (analysis by J. Brink).

					10 770					15 900			17 800			
	Wilton				Albany			?		Robberg						
	TAP	HPA	SBA	HWO	BCP	RBBA	WA	BA	RA	GA1	BA1	GA2	BA2	GA3	BA3	CF4
Reptilia																
Tortoise	3	1	1			1										
Indet. Small reptile	2															
Aves																
Indet. Small bird		1							1							
Mammalia																
Rodentia																
Hystrix africea-australis			1													
Idet. Small rodent	2	1	1			1										
Lagomorpha																
Small leporid					1											
Hyracoidea					2											
Procavia capensis	5	1	2	1		3			1							
Primates																
Papio ursinus																
Carnivora																
Small canid					1											
Perrissodactyla																
Equus sp.				1	3				1							
Artiodactyla																
Potamochoerus larvatus					1			1	1							
Redunca fulvorufula			1													
Raphicerus sp.	4		1						1							
Oreotragus areotragus	2				1				1							
Caprini					1					1						
Bovidae indet.																
Large			1		2	1	1									
Large-medium			1		1	4										
Small medium			3		1	2				1						
Small	1	2	2		1	2		1	1	1						

Table. 2. Frequencies of stone artefacts at Kleinrivier Shelter.

	Wilton				10 770 Albany					?		15 900			17 800 Robberg	
	TAP	HPA	SBA	HWO	BCP	RBBA	WA	BA	RA	GA1	BA1	GA2	BA2	GA3	BA3	CF4
WASTE																
Chips																
Quartz	18	9	3	14	5	-	9	28	18	30	201	39	91	26	42	51
Quartzite	14	176	272	192	171	169	1	14	8	2	29	12	7	10	20	24
Hornfels	1	4	4	3	2	10		3	1		2	2	1		5	
Silcrete	4	69	40	4	-	29		3	3		74	82	6		2	2
Chunks																
Quartz	4									3	13	1	1			3
Cores																
Hornfels	1															
CPR's																
Quartz	2							1			20	1	6			
Quartzite	8															
Silcrete	1							1				1	1			
Flakes																
Quartz	12	3		1	2	-	2	11	9	13	118	18	44	9	23	34
Quartzite	26	275	260	253	288	374	8	38	58	7	62	15	5	22	52	62
Hornfels	3	3	4	6	6	21		1	3		4	1	1		5	1
Silcrete	23	82	46	2	18	43	3	4	1	4	93	53	5	3		2
Utilized tools																
Flakes																
Quartzite			1		1	1			1	1			3		2	
Hornfels	1															
Silcrete		2								1	5			1		
Hammer stones			1													
Anvil		1			2					1						
Grind/rubber		2			3				1				1	2		3
Formal tools																
Scrapers																
Quartz			1													
Quartzite		1	1													
Hornfels		2														
Silcrete		1	3													
Blade/segments																
Silcrete										2						
Total																
Ochre	46	124	120	98	137	269	10	51	21	-	6	-	2	13	38	10
Crystals								1								

Table. 3. Frequencies of other cultural artefacts at Kleinrivier Shelter.

					10 770						15 900				17 800	
	Wilton				Albany				?				Robberg			
	TAP	HPA	SBA	HWO	BCP	RBBA	WA	BA	RA	GA1	BA1	GA2	BA2	GA3	BA3	CF4
OES																
Fragments	4	4	30	29	42	52		1	1		1					
Beads	7	3				1										
R. outs	1	3	4	1	2	14			1							
Decorated			2		1											
Openings					1											
Marine shell																
N. kraussianus		3														
Tricolia capensis			1													
Donax serra	1	1	1	2	4	3										
P. perna	*															
Bullia	1															
P. miniata	*															
Beads																
N. kraussianus	1	2	2	3	5	1										
Thias sp.	1															
Pottery																
Fragments	4															
Rims	1															
Lugs	1															
Wood																
Cut	2															
Fire drills	2															
Shavings	*															
C. textillus																
Cordage	1															
Mat fragments	12															