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FILLING A GAP: THE EARLY AND MIDDLE HOLOCENE ASSEMBLAGES FROM NEW EXCAVATIONS AT SEHONGHONG ROCK SHELTER, LESOTHO*

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ABSTRACT

Until recently the virtual lack of evidence for early or middle Holocene human activity in the Lesotho highlands created a sharp contrast with the situation in the Barkly East/Maclear area of the Eastern Cape and the lowlands of the Caledon Valley. Recent excavations at Sehonghong rock-shelter now document at least three pulses of occupation between 10 000 and 6000 BP. These pulses comprise an Oakhurst-like assemblage in the tenth millennium BP, followed by an occurrence with large numbers of Woodlot scrapers dating to c. 7000 BP and a Classic Wilton assemblage dating to c. 6000 BP. The Sehonghong sequence, which exhibits significant continuities across the Pleistocene/Holocene boundary, is at odds with models proposing that changes in raw material usage at this time were coincident with changes in blank production. Examining the distribution of ostrich eggshell beads and seashell ornaments and patterns of lithic raw material usage in southeastern southern Africa as a whole during the early/middle Holocene suggests that Sehonghong and other sites in Lesotho may not have formed part of the same exchange network as sites in the Barkly East/Maclear area or the eastern Free State.

INTRODUCTION

Previous considerations of the prehistory of the Lesotho highlands have emphasised evidence for its late Pleistocene and late Holocene occupation (*e.g.* Carter *et al.* 1988). Though more recent hunter-gatherer activity is well documented by excavations and field surveys (Carter 1978) and by numerous painted rock shelters (Vinnicombe 1976), virtually no indication has previously emerged for this region having been occupied during the early or middle Holocene. Indeed, the marked contrast between this situation and that revealed in the Caledon Valley (Mitchell 1994a) lead to the suggestion that highlands and lowlands had quite different settlement histories over the last 10 000 years (Mitchell & Vogel 1992). A similar contrast was evident with the Barkly East/Maclear area of the Eastern Cape Province where several sites were occupied in the early and/or middle Holocene (Opperman (1987). Recent excavations at Sehonghong rock shelter show this conclusion to be erroneous and that the upper Orange River witnessed at least three pulses of human settlement during the early and middle Holocene. Following earlier papers that describe assemblages from the underlying late Pleistocene layers (Mitchell 1994b, 1995), this paper reports on the artefact occurrences from the 10 - 6000 BP levels at Sehonghong. Analyses of associated botanical and faunal material will be published separately at a later stage.

BACKGROUND TO THE SITE AND ITS EXCAVATION

Sehonghong rock shelter (29.46S; 28.47E) lies on the south bank of the Sehonghong River, 3 km upstream of its confluence with the Orange (Senqu) River in the Thaba Tseka District of the eastern Lesotho highlands (Fig. 1). Details of present day climate and environment and of the procedures followed during excavation of the site in 1992 are given elsewhere (Mitchell 1994b, 1995, in press).

Stratigraphy

The natural stratigraphic units defined during the excavation (Fig. 2) were grouped, for analytical purposes, into layers that represent successive pulses of occupation. Three are of concern (Fig. 3). All come from the middle and upper portions of Layer IX of Carter's (1978) stratigraphy, described previously as a series of interlensing hearth complexes with much organic matter and abundant artefacts (Carter *et al.* 1988:36). These layers are:

GWA (Grey White Ash): a series of quite firm white to pinkish-white ash bodies with a high charcoal content that may be the remains of several interlensing hearths. These units occur only in the rear half of the 1992 excavation trench, suggesting that

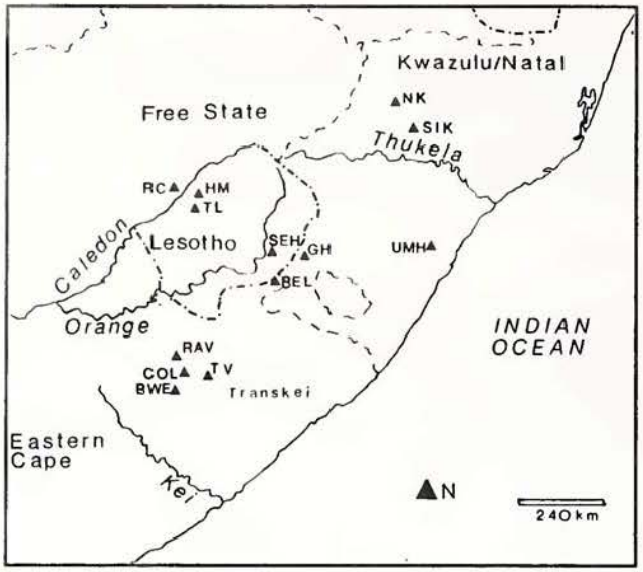

Fig. 1. Location of Sehonghong and other sites mentioned in the text. Site names abbreviated thus: BEL Belleview; BWE Bonawe; COL Colwinton; GH Good Hope; HM Ha Makotoko; NK Nkupe; RAV Ravenscraig; RC Rose Cottage Cave; SEH Sehonghong; SIK Sikhanyisweni; TL Tloutle; TV Te Vrede; UMH Umhlatuzana.

front of the excavation trench, in the rear of which firmer, white ashy units were found. The topmost units of this layer were partially calcreted and constitute a clear stratigraphic break with the bottom of ALP. SA was excavated in 24 units, including one hearth. 140 buckets of deposit were removed.

Two main sources of potential stratigraphic disturbance were noted. Firstly, the cocoons of an as yet unidentified insect were found at the extreme rear of the excavation trench through all three of the layers considered here. Their burrowing may have resulted in vertical displacement of small items. Secondly, although the vast majority of termite casts found in excavation concentrate in the 12 500 - 12 200 BP period (Mitchell 1995), a few do occur in SA, raising the possibility of further bioturbation of the deposit. However, neither of these two processes, nor the animal burrow excavated in ALP, appears to have had a major impact on the integrity of the archaeological horizons: pottery, for example, is completely absent from GWA, even though sherds occur in the layer immediately above. Four small sherds do occur in the topmost unit of ALP, but all are from the western end of the excavation trench where this unit immediately underlies the late Holocene GAP layer with its ceramic post-classic Wilton assemblage.

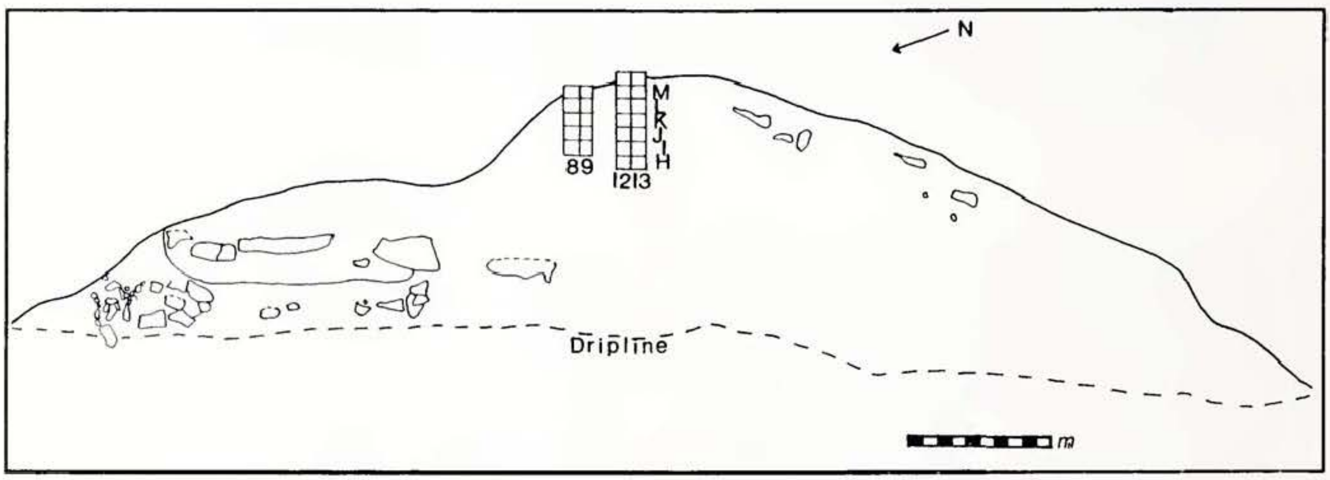

Fig. 2. Sehonghong: site plan showing location of the 1971 (squares 8 & 9) and 1992 (squares 12 & 13) excavations.

they represent a localised area of activity within the shelter. Removed in 14 units, GWA produced 83 buckets of deposit.

ALP (Ashy Loams with Plants): a series of predominantly reddish-brown or black ashy loams, many of which contain partly humified plant remains. Some units have a more distinctly ashy content, particularly toward the layer's base and in the rear of the excavation trench, where mottled pinkish-white compact ash bodies dominate. 188 buckets of deposit were removed in 39 units, including one pit and two shallow hearths.

SA (Sandy Ash): a series of mottled orange-brown sandy loams, most strongly developed toward the

Dating

Ten radiocarbon dates are relevant to the dating of the early and middle Holocene levels (Table 1), though Pta-6071 and Pta-6354 must be rejected as out of sequence. Two determinations bracket the SA layer between 9740 ± 170 BP (Pta-6057) and 9280 ± 45 BP (Pta-6368). Above this, ALP produced four closely similar dates that overlap at two standard deviations. These dates, which have a mean value of 7150 BP, indicate, along with the substantial quantity of deposit removed, that this layer represents a relatively short period of intense occupation. A radiocarbon determination of 6870 ± 60 BP (Q-3174) from the 1971 excavation of Sehonghong (Carter *et al.* 1988) probably relates to this layer. For the overlying GWA only a single date (5950 ± 70 BP, Pta-6154) has been obtained

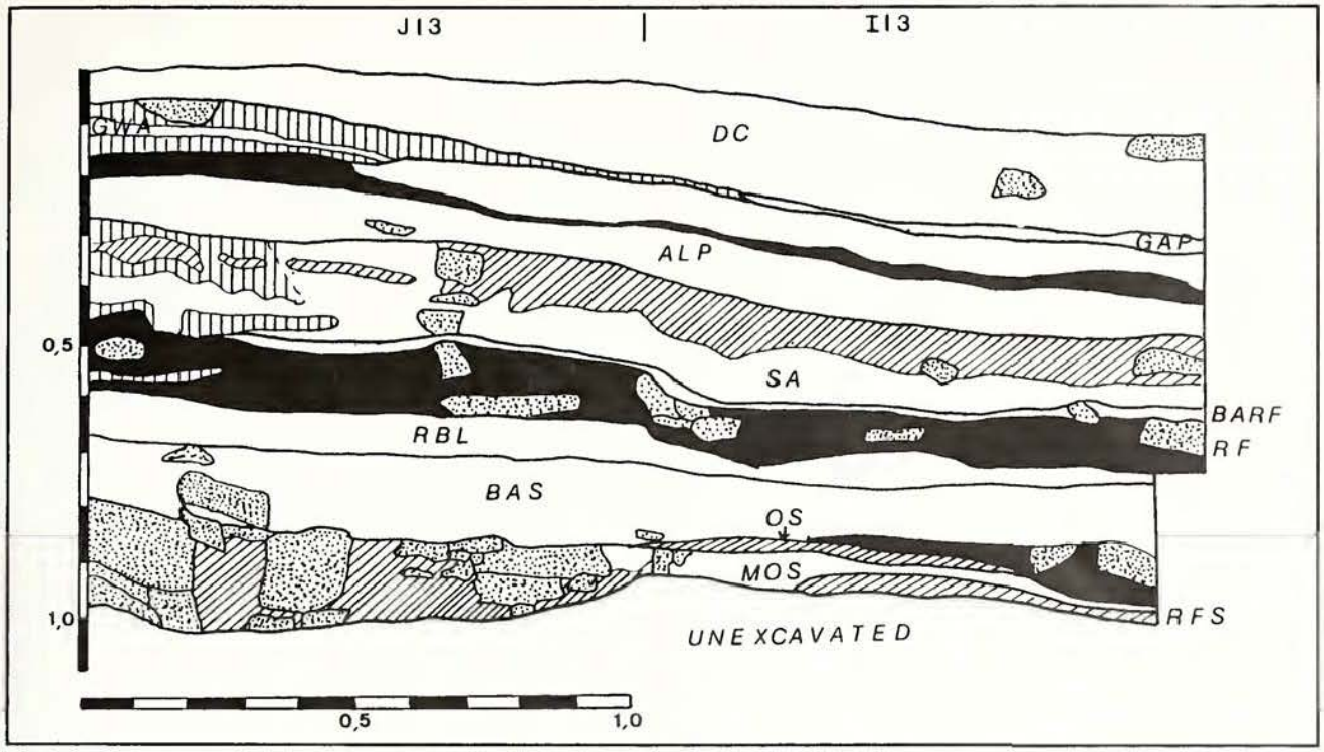

Fig. 3. Sehonghong: partial section of the north wall in the 1992 excavation. Stippling denotes rocks, black areas represent carbon-rich loams, diagonal hatching shows orange sands and vertical hatching white ash.

Table 1. Sehonghong: radiocarbon determinations for the early and middle Holocene layers.

Lab. No.	Date BP	Layer	Unit
Pta-6154	5950 ± 70	GWA	001
Q-3174	6870 ± 60	-	-
(from Layer IX of the 1971 excavation, Carter *et al.* 1988)			
Pta-6278	7150 ± 80	ALP	006
Pta-6280	7090 ± 80	ALP	014
Pta-6072	7210 ± 80	ALP	022
Pta-6083	7010 ± 70	ALP	117 (from a discrete hearth)
Pta-6071	3970 ± 30	ALP	032
Pta-6368	9280 ± 45	SA	119 (from a discrete hearth)
Pta-6354	6960 ± 40	SA	055
Pta-6057	9740 ± 140	SA	062

Note: All dates are uncalibrated and have been corrected for isotopic fractionation. All were run on charcoal, pretreated with acid and alkali. Unless otherwise indicated, samples were taken from spreads of charcoal collected from throughout a square. Pta-6071 and Pta-6354 are out of sequence and need to be rejected.

This comes from its topmost unit and for the succeeding four millennia there is no indication that the site was occupied by people; the next radiocarbon date in the Sehonghong sequence (1710 ± 20 BP, Pta-6063) comes from the base of layer GAP (Mitchell & Vogel 1994).

Features

In contrast to the late Pleistocene part of the Sehonghong sequence, few discrete features were recognised in excavation of the Holocene levels. Those identified include a small pit in the middle of ALP, two hearths toward its base, and two more hearths at the top of SA, one demarcated by two grindstones and a manuport. The outlines of a potential bedding hollow were traced in one unit in ALP, but not all of this feature fell within the excavation area. A further feature in ALP may be the remains of a large stake or posthole. Several similar stakeholes were observed in section in the 1971 excavation (Carter 1978). Comments by a local informant interviewed at that time, who recalled seeing Bushmen using 'huts' built inside the shelter, provide one explanation of the presence of these stakeholes (P. Vinnicombe, pers. comm.).

STONE ARTEFACT ASSEMBLAGES

The Sehonghong lithic assemblages were analysed using Deacon's (1984a) typology, as amended by Carter *et al.* (1988). However, complete analysis of the Holocene stone artefacts was not attempted. It was felt that little useful information was to be obtained by counting every single chip, flake and other element of débitage. Consequently, during sorting only cores, utilised artefacts and formal tools were identified and treated separately. The remaining artefacts (*i.e.* all the débitage except for the cores) were categorised by raw material and then weighed to provide a measure of changing patterns of raw material use. Blade/bladelet frequency was monitored by counting the frequency of these artefacts in four of the excavated squares (I12, J13, K12 and L13). Lack of time and manpower (or the finance to pay for it) are common

Table 2. Sehonghong: raw material usage in the early and middle Holocene layers.

	GWA		ALP		SA		Total
Entire assemblage	(g)	%	(g)	%	(g)	%	(g)
Opalines	20 215,5	82,0	26 346,5	73,7	14 172,1	67,0	60 734,1
Dolerite dyke material	3 167,2	12,9	7 441,0	20,8	4 130,3	19,5	14 738,5
Hornfels	232,1	0,9	742,2	2,1	708,4	3,4	1 682,7
Basaltic rocks	281,3	1,1	377,0	1,1	544,6	2,6	1 202,9
Quartz	226,8	0,9	296,4	0,8	652,4	3,1	1 175,6
Siltstone/mudstone	40,8	0,2	129,2	0,4	136,8	0,6	306,8
Other	489,1	2,0	419,2	1,2	816,6	3,9	1 724,9
Total	24 652,8	100,0	35 751,5	100,1	21 161,2	100,1	81 565,5
Utilised artefacts	N	%	N	%	N	%	N
Opalines	112	82,4	136	73,5	68	60,2	321
Dolerite dyke material	13	9,6	24	13,0	17	15,0	49
Hornfels	3	2,2	7	3,8	6	5,3	14
Basaltic rocks	2	1,5	9	4,9	10	8,8	18
Siltstone/mudstone	3	2,2	3	1,6	5	4,4	11
Other	3	2,2	6	3,2	7	6,2	15
Total	136	100,1	185	100,0	113	99,9	434
Formal tools	N	%	N	%	N	%	N
Opalines	351	98,9	325	97,3	18	81,8	694
Dolerite dyke material	1	0,3	2	0,6	-	-	3
Hornfels	2	0,6	5	1,5	3	13,6	10
Siltstone/mudstone	1	0,3	2	0,6	-	-	3
Other	-	-	-	1	4,6	1	1
Total	355	100,1	334	100,0	22	100,0	711

Note: Other materials include baked siltstone/mudstone, sandstone, shale and tuff.

Table 3. Sehonghong: cores and core by-products from the early and middle Holocene layers.

	GWA	ALP	SA	Total
Irregular	75	118	98	291
Bladelet	2	3	12	17
High-backed bladelet	-	2	6	8
Flat bladelet	2	1	6	9
Small bladelet	-	-	2	2
Total cores	79	124	124	327
Core-reduced pieces	1	10	9	20
Core-tablets	14	15	6	35
Lames à crête	-	-	2	2

problems in processing excavation material. The approach followed at Sehonghong may therefore prove useful elsewhere.

Table 2 shows that opalines dominate all three of the assemblages discussed, but that there is a progressive increase in their importance with time. Correspondingly, the amounts of dolerite dyke material and hornfels declined. Quartz crystal is, compared with the rest of the Sehonghong sequence, common in SA, but almost all occurs as chips, chunks and tiny flakes < 10 mm in size. Both quartz and calcite crystals, which do not fracture isotropically, may thus have been introduced to the site at least partly for something other than making stone tools, *e.g.* as part of shamanistic paraphernalia (Wadley 1987:44-46), or for use, when crushed, as a source of white pigment (Yates *et al.* 1990). Despite the diversity of rock types employed, virtually all formal tools were made in opalines in all three assemblages.

The late Pleistocene occurrences at Sehonghong are characterised by a heavy investment in the systematic production of bladelets from specialised bladelet cores (Mitchell 1995). Neither of these features is important in the Holocene part of the Sehonghong sequence, where the frequency of blades and bladelets never exceeds 4,3% of the total number of unmodified artefacts. Although a few high-backed (wedge-shaped) bladelet cores occur in SA and ALP and more generalized forms of bladelet core

Table 4. Sehonghong: utilised and formally retouched artefacts from the early and middle Holocene layers.

	GWA		ALP		SA		Total
	N	%	N	%	N	%	N
Utilised flakes	122	89,7	155	83,8	76	67,3	353
Utilised blades	7	5,1	8	4,3	14	12,4	29
Utilised bladelets	1	0,7	4	2,2	5	4,4	10
Hammerstones	1	0,7	2	1,1	1	0,9	4
Upper grindstones	2	1,5	5	2,7	5	4,4	12
Lower grindstones	-	-	2	1,1	8	7,1	10
Ochre-stained grindstone fragment	-	-	-	-	1	0,9	1
Upper grindstone/ hammerstone	-	-	1	0,5	-	-	1
Bored stone	1	0,7	-	-	-	-	1
HEFPs	-	-	5	2,7	-	-	5
Palettes	2	1,5	2	1,1	-	-	4
Ground sandstone	-	-	1	0,5	3	2,7	4
Total utilised	136	99,9	185	100,0	113	100,1	434
Scrapers	271	76,3	291	87,1	10	45,5	572
Adzes	22	6,2	14	4,2	4	18,2	40
Scraper/adze	1	0,3	-	-	-	-	1
MRPs	13	3,7	14	4,2	8	36,4	23
NBKs	-	-	3	0,9	-	-	3
Truncated flake	1	0,3	-	-	-	-	1
Retouched points	1	0,3	1	0,3	-	-	2
Pressure-flaked fragment	-	-	1	0,3	-	-	1
Borers	2	0,6	1	0,3	-	-	3
Backed microliths:							
flakes	4	9,1	2	22,2	-	-	6
blades	-	-	1	11,1	-	-	1
bladelets	3	6,8	-	-	-	-	3
points	1	2,3	1	11,1	-	-	2
segments	34	77,3	4	44,4	-	-	38
fragments	2	4,5	1	11,1	-	-	3
sub-total	44	12,4	9	2,7	-	-	53
Total retouched	355	100,1	334	100,0	22	100,1	711
Density of formal tools per bucket of excavated deposit		4,28		1,78		0,16	-

HEFP Heavy edge-flaked piece
MRP Miscellaneous retouched piece
NBK Naturally backed knife

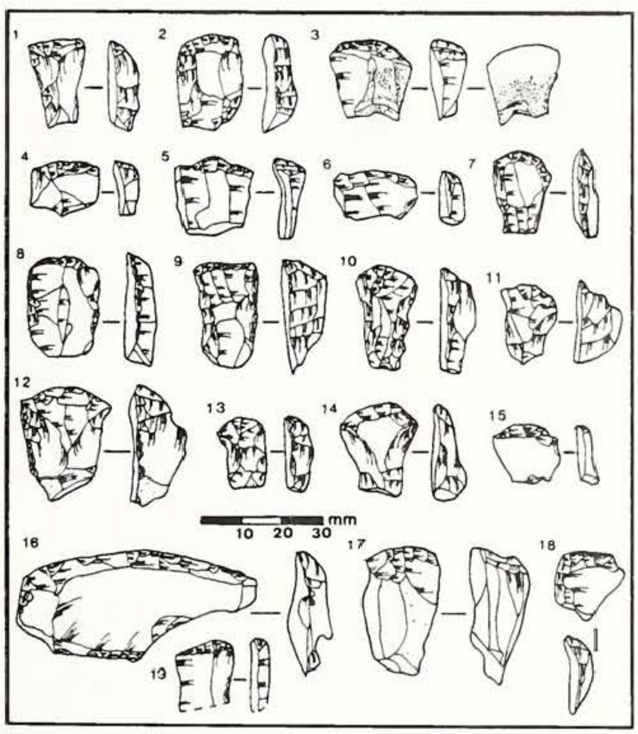

Fig. 4. Sehonghong: scrapers from the early and middle Holocene layers. All in opalines. 1-7 GWA; 8-15 ALP; 16-19 SA. Dense stippling denotes mastic. Numbers 1, 2, 7-10 and 12-14 have adze-like lateral retouch.

in all three layers, by far the majority of cores are irregular, with single platform types most common. Bipolar flaking is rare, though rather more common in SA, partly because all of the very few quartz cores present in the assemblages discussed here (N = 3) occur in that layer. The other examples of such cores are all in opalines, but a bipolar technique was obviously not generally needed for the reduction of this material.

Most of the utilised artefacts found are flakes (Table 4), the majority falling within Deacon's (1984a) edge-damaged category. Utilised blades and bladelets are uncommon compared to the underlying Robberg-like assemblages. Several whole and broken upper and lower grindstones were found and one fragment is ochre-stained. Rarer items include an unfinished bored stone from GWA and four ground stone palettes, two from GWA and two from ALP. Three are in shale, with the other in the sandstone usually employed for such items at Lesotho sites. The function of these objects remains unknown (Clark 1959); despite the name, none is ochre-stained. A possibly backed flake in ALP and two scrapers and an unmodifed flake from GWA are the only artefacts bearing traces of mastic that were found in the early/middle Holocene layers.

Though present in the SA assemblage, formal tools are more frequent after 7200 BP and still more so c. 6000 BP (Table 4). Scrapers (Fig. 4) are by far the most common class present and several artefacts classified under miscellaneous retouch probably belong with them. The SA scrapers resemble their late Pleistocene predecessors in showing little standardization of design, though they are rather larger, particularly in mean width. Greater formality is evident in those from ALP and GWA, some 80 % of which have scraper retouch present only at the distal end of endstruck flakes. Slightly more than half also have steep adze-like retouch down one, or more commonly both, lateral margins. In rare cases this retouch has been applied to the ventral, rather than the dorsal, surface of the artefact and, particularly in ALP, the bulb of percussion may be removed. Opperman (1987) inteprets this kind of retouch as a way of facilitating hafting in an end-mounting technique, rather than the side-mounting technique suggested for later Holocene scrapers (Deacon & Deacon 1980). If scrapers were now regularly hafted in a consistent manner then this should have imposed constraints on scraper size: metric data show that scrapers from ALP and GWA display much less variability in width than those from SA (Table 5).

Backed microliths occur only rarely in the Robberg-like assemblages at Sehonghong and not at all in SA. Segments appear for the first time around 7200 BP, but are only common in GWA (Fig. 5). Rare examples of other backed microlith types are also present in both ALP and GWA. Adzes are the other principal formal tool class present (Fig. 6) and the use of side-struck flakes as blanks for adze manufacture seems distinctive of the 7200 - 6000 BP part of the Sehonghong sequence. Adze notch width was measured, giving a mean value for GWA of 19,00 ± 6,91 mm (N = 16). This is closely comparable to values reported from Hololo Crossing in north-western

Table 5. Sehonghong: descriptive statistics (mm) for opaline scrapers from the early and middle Holocene layers.

	GWA	ALP	SA
Length	23,20 ± 7,08	24,32 ± 6,31	25,89 ± 5,53
Width	19,13 ± 4,55	18,42 ± 4,39	27,00 ± 13,18
Thickness	7,97 ± 2,85	8,56 ± 3,20	8,78 ± 3,52
Height of retouch	6,50 ± 2,46	6,86 ± 2,82	7,78 ± 3,71
N	234	237	9

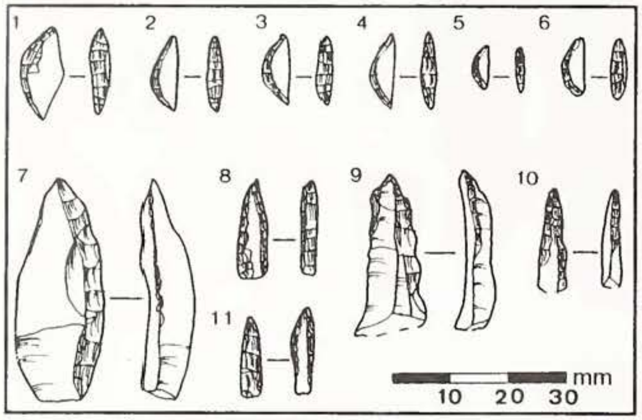

Fig. 5. Sehonghong: backed microliths from the early and middle Holocene layers. All in opalines. 1-5 segments (GWA); 6 segment (ALP); 7 backed flake (GWA); 8-9 backed bladelets (GWA); 9 borer (ALP); 10 backed point (ALP).

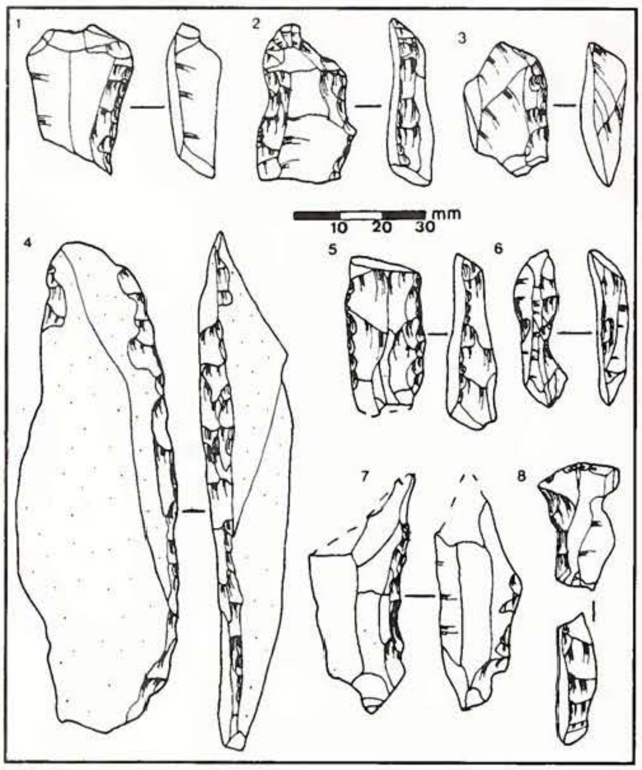

Fig. 6. Sehonghong: adzes and naturally backed knives from the early and middle Holocene layers. All in opalines unless otherwise stated. 1-3 adzes (GWA); 4 naturally backed knife (ALP, hornfels); 5-7 adzes (ALP; 7 siltstone/mudstone); 8 adze (SA).

Lesotho (Mitchell & Parkington 1990) and some sites in the Thukela Basin of KwaZulu-Natal (Mazel 1984, 1988a), suggesting a degree of consistency through time and space in the minimum sizes of artefacts worked with

Table 6. Sehonghong: pigments found in the early and middle Holocene layers.

	GWA	ALP	SA	Total
Ochre (g)	165,8	285,4	146,2	597,4
Ochreous shale (g)	-	-	7,6	7,6
Ilmenite (g)	-	0,8	3,9	4,7
Ground ochre (Number of pieces)	-	12	3	15
Ground ilmenite (Number of pieces)	-	1	-	1

adzes. One adze from GWA might be better classed as a naturally backed knife (*sensu* Parkington 1984), given the style of its retouch and cortical backing; three unequivocal examples of this type come from ALP.

A few Middle Stone Age artefacts were found in both GWA and ALP, mostly large blades with faceted platforms made from dolerite dyke material. None has evidence of re-use, but neither do they cluster with other 'strange' items, as in the 'shaman's toolkit' from Jubilee Shelter (Wadley 1987); perhaps they were picked up as curiosities from the talus or from some of the many surface scatters in the general area of the site (Mitchell 1994c). Among other manuports introduced to the site, a piece of rippled sandstone in SA may derive from the floor of a rock-shelter a few kilometres further upstream along the Sehonghong River.

PIGMENTS

Several different kinds of pigment were found, including red and yellow ochres, a small quantity of powdered red ochre in some of the ALP units and a few pieces of ground ochre in both ALP and SA (Table 6). However, very few artefacts are ochre-stained: an unmodified opaline flake from GWA, a sandstone flake from ALP and a grindstone fragment from SA.

Of particular interest is the presence of small fragments of ilmenite (one of them ground). This yields a black pigment, much used in the nineteenth century as a hair cosmetic, and occurs at several locations in northern and western Lesotho (Arbousset 1991:171), as well as near a village on the other side of the Orange River from Sehonghong. In Lesotho it is otherwise reported archaeologically only from sites in the Phuthiatsana ea Thaba Bosiu Basin, again principally in early Holocene contexts (Mitchell 1993a, 1993b). Also time-related in the Sehonghong sequence is the presence of ochreous shale, a small quantity of which occurs in SA; this is otherwise known only in the terminal Pleistocene (Mitchell 1995).

Twenty-one ochre-stained sandstone spalls bearing possible traces of paint (a possibility raised by the exfoliated nature of the spalls and the paucity of ochre-stained sandstone artefacts in the excavation from which they might otherwise derive) were recovered from GWA. Of those most strongly marked, six are red and one orange, with white and pinkish-white predominating among the rest. Given the closeness of GWA to the contemporary surface of the deposit and the evidence of insect activity in this part of the sequence, it is impossible to be certain that these spalls (all ≤39 mm in maximum dimension) have not worked their way into GWA from above. They should not therefore be used as

Table 7. Sehonghong: worked bone from the early and middle Holocene layers.

	GWA	ALP	SA	Total
Point - complete	1	-	-	1
Point - tip only	2	-	3	5
Midsection (point or linkshaft ?)	27	9	2	38
Butt (point or linkshaft ?)	-	-	1	1
Polished shaft fragment	2	-	2	4
Polished, flat longbone shaft fragment	2	1	-	3
Polished fragment	2	-	1	3
Bead	2	5	-	7
Total	38	15	9	62

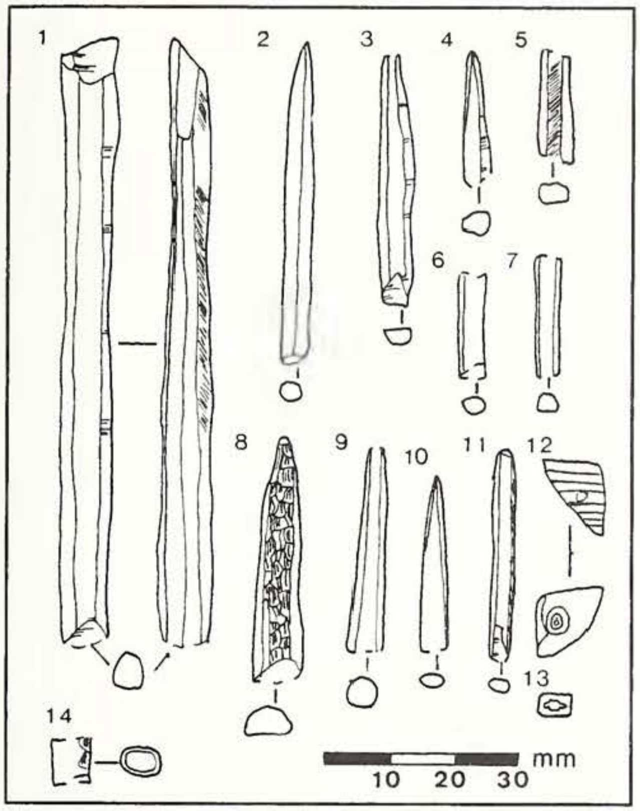

Fig. 7. Sehonghong: worked bone, shell and ostrich eggshell artefacts from the early and middle Holocene layers. 1 polished longbone shaft fragment (GWA); 2 bone point (GWA); 3 polished fragment (GWA); 4 tip (GWA); 5-7 midsections (GWA); 8 facetted and polished longbone shaft fragment (ALP); 9 midsection (ALP); 10-11 points (SA); 12 Drilled piece of *Trachycardium* sp. shell (GWA); 13 rectangular ostrich eggshell bead (GWA); 14 bone bead (GWA).

evidence of a mid-Holocene antiquity for the practice of painting rock-shelter walls.

WORKED BONE, OSTRICH EGGSHELL AND SHELL

Worked bone artefacts were found in all three layers (Table 7, Fig. 7). Most are polished mid-sections of what were probably points and/or linkshafts, similar in size and shape to probable point/linkshaft fragments from the late Holocene assemblages at Sehonghong. The butt of one point and tips from several more were also found, along with a complete point with sawn-off base in GWA. In addition to a few polished fragments of bone, some of which carry cutmarks, several bone beads (one unfinished and made from bird bone) were recovered. Another distinctive artefact, found only in GWA and ALP at Sehonghong, is represented by fragments of the shafts of bovid longbones, one surface of which is highly polished, flat and very smooth. Two of these objects also have rather crudely shaped blunt points at one end, suggesting that they could have been used as awls, but the intense polishing may indicate some other activity (related to scraping ?) as their primary function.

Ostrich eggshell (OES) beads are abundant in the Holocene part of the Sehonghong sequence, though less common in SA (Table 8). Their increased frequency, as well as that of the marine shell ornaments discussed below, parallels a general southern African trend after 12 000 BP that may signal the development of social relations, including *hxaro* exchange, comparable to those of modern San (Wadley 1993). One of the SA beads is encrusted with red ochre and another from GWA is ochre-stained. Two others from GWA are peculiar in being virtually rectangular in shape (Fig. 7). Almost all the beads (>96 %) are finished and there is no indication in any part of the Sehonghong sequence for OES beadmaking having taken place on-site. This is consistent with the unavailability of ostriches in the Lesotho highlands (Maclean 1984) and points to beads having been introduced, perhaps through long distance exchange networks, in a ready-to-wear fashion. Unworked pieces of OES are, as might be expected, also rare at Sehonghong. The quantity recovered even from GWA, where they are comparatively common, comes nowhere near that of even a single egg.

Whole OES beads were measured and comparisons drawn with similar data from Elands Bay Cave. Bearing in mind the larger (3,0 mm) mesh employed at Elands Bay, the Sehonghong data nevertheless appear to confirm the tendency seen there (R. Yates, pers. comm.) for late Pleistocene beads to be significantly larger (in both overall diameter and size of aperture) than those from the early and mid-Holocene. They also show a trend toward decreasing mean bead diameter through the period 9800 - 6000 BP (Table 8).

Except for a single *Nerita* sp. pendant dating to 12 200 BP, marine shell only occurs in the Holocene part of the Sehonghong sequence. Further temporal patterning is indicated by the fact that 95 % of the seashells found in the 1992 season come from the three layers discussed here. Though almost all are beads made from the estuarine species *Nassarius kraussianus*, two shell fragments of *Trachycardium* sp. were found in SA and two further drilled pieces of this marine genus in GWA (Table 9; Fig. 7). All these shells must have been derived from the Indian Ocean coast and may point to exchange/alliance networks between people living in the Lesotho highlands and those living in coastal parts of south-eastern southern Africa.

DISCUSSION

A more thorough-going discussion of how early and middle Holocene foragers used Sehonghong and its

Table 8. Sehonghong: ostrich eggshell beads and pieces from the early and middle Holocene layers.

	GWA	ALP	SA	Total
OES beads (finished)	105	171	40	316
OES beads (unfinished)	2	6	3	11
OES beads (total)	107	177	43	327
Number of beads measured	104	174	40	318
Mean bead diameter (mm)	3,73 ± 0,58	3,93 ± 0,58	4,19 ± 0,67	
Mean aperture diameter (mm)	1,57 ± 0,33	1,59 ± 0,33	1,52 ± 0,31	
OES pieces (number)	14	1	-	15
OES pieces (g)	2,7	0,4	-	3,1

Table 9. Sehonghong: worked marine shell from the early and middle Holocene layers.

	GWA	ALP	SA	Total
Nassarius kraussianus beads	12	36	11	59
Trachycardium sp. pieces	-	-	2	2
Trachycardium sp. (drilled piece)	2	-	-	2

environs will be possible when results of on-going palaeoenvironmental and archaeozoological analyses can be integrated with the patterning already evident in the artefact assemblages. At this preliminary stage, three main areas of discussion present themselves: regional settlement history, comparison with early and middle Holocene lithic industries in neighbouring parts of southern Africa, and implications for the study of inter-regional exchange networks.

The earlier view (Mitchell & Vogel 1992) that the Lesotho highlands were effectively unoccupied during the early and middle Holocene is clearly in error. Though a mid-Holocene date was previously known from Sehonghong, analysis of the artefact assemblages found during the 1971 excavation was constrained by the fact that the site had been excavated in 100 mm thick spits. Concentration in that study on those spits thought to be of high stratigraphic integrity resulted in evidence for early/middle Holocene activity at the site passing unremarked between late Pleistocene and late Holocene occupations (Carter *et al.* 1988). It is now clear that people were present in Sehonghong (and thus the Lesotho highlands) during the period 10 - 6000 BP. However, the Sehonghong sequence also suggests that this occupation was far from continuous. Instead, it took the form of three distinct pulses, one bracketed by dates of 9740 and 9280 BP, the second around 7200/7000 BP and the third around 6000 years ago. Such pulsing is increasingly seen as characteristic of rock shelter occupations in southern Africa (Parkington 1990, 1992). It poses a major explanatory challenge to archaeologists, particularly when pulses of similar age are evident at sites in different parts of the sub-continent. In broad terms the Sehonghong pulses are similar to those evident in western Lesotho (Mitchell 1994a) and at Rose Cottage Cave on the opposite side of the Caledon River (Wadley & Vogel 1991).

Palaeoenvironmental observations provide one point of departure for explaining these occupation pulses since we expect climatic changes to impact on the availability of plant, animal and other resources. In the Caledon Valley, for example, the cessation of occupation evidence c. 8400 BP corresponds closely to the onset of much drier conditions (Esterhuysen & Mitchell, in press), which may have persisted until at least 7000 BP. More humid climatic phases, as between 10 000 and 8400 BP or from 6900 to 6000 BP, witnessed occupation at several rock shelters up and down the valley (Esterhuysen & Mitchell, in press). It is tempting to relate pulsing in the Sehonghong sequence to these same climatic phases, but several caveats are in order. Firstly, the Caledon Valley is in a more ecotonal situation than the upper Orange River (Wadley *et al.* 1992), so conditions may not have been precisely the same. Second, the few palaeoenvironmental data available from the Lesotho highlands suggest only that relatively moist conditions were present from around 7200 BP, judging from the onset then of peat formation in the catchment of the upper Mashai River (Carter 1978). In developing palaeoclimatic inferences we need to expand our use of such off-site data and thus avoid an exclusive reliance on the botanical and faunal assemblages associated with human activities at archaeological sites. Third, our understanding of the impact of climatic change on the availability of key subsistence resources is inadequate and requires refinement. Lastly, we must avoid the temptation of assuming that pulsing in rock shelter sequences necessarily implies pulsing in regional occupation, as opposed to pulsing in shelter use. This point, made in a recent study of western Lesotho (Mitchell *et al.* 1994), receives added emphasis from the discovery near Sehonghong of an open-air archaeological site of with possible early/middle Holocene occupation (Mitchell 1994c).

In general terms the early/middle Holocene assemblages from Sehonghong fit the broad southern African pattern: the SA assemblage with its extreme rarity of formal tools of any kind or of bladelet production can be assigned to the Oakhurst Complex, while GWA with its many segments and smaller scrapers belongs to the Classic phase of the Interior Wilton Industry (Sampson 1974; Deacon 1984b). ALP is best thought of as an earlier expression of the Wilton tradition, comparable to the contemporary CSL-LR occurrence at Tloutle in western Lesotho (Mitchell 1993b). The informality of the SA assemblage is paralleled in assemblages from Te Vrede (Layers 3 and 4) and Ravenscraig (Layer 4) in the Barkly East/Maclear area of the Eastern Cape Province, which date to about 10 000 BP (Opperman 1987). Similarly, scrapers with adze-like lateral retouch are characteristic of the period after 8000 BP at both these sites and at Colwinton and Bonawe (Opperman 1987). They are also distinctive of sites in central western Lesotho from c. 9300 to 6900 BP (Mitchell 1994a) and can be found towards the base of sequences at Liphofung (Kaplan 1992) and Masitise (Mitchell *et al.* 1994) at the northern and southern ends of the Caledon Valley. Recently termed 'Woodlot scrapers', after an open air site in southern Lesotho (Mitchell *et al.* 1994), they form a distinctive aspect of the more widespread 'duckbill scraper' phenomenon noted by Goodwin & Van Riet Lowe (1929) and Deacon (1984b). Interestingly, the ALP and GWA assemblages from Sehonghong feature large numbers of these scrapers, while they are quite rare in contemporary assemblages from Tloutle in western Lesotho (Mitchell 1993b). If one opts for a 'traditional' model of culture that equates assemblage similarity and shared cultural traditions (but *cf.* Binford 1962; Hodder 1982), then this divergence in stone-working traditions could imply that contact between communities in eastern and western Lesotho lessened in the middle Holocene. The continued presence of ostrich eggshell beads and pieces in ALP and GWA at Sehonghong, which probably have a westerly origin (see below) suggests, however, that such a normative explanation may not be appropriate in this case.

As yet no observations comparable to those from Sehonghong are available elsewhere in the Lesotho highlands, though Belleview, just across the border into the Eastern Cape Province of South Africa, has a radiocarbon date of 8650 ± 80 BP (Pta-359) (Carter & Vogel 1974). This site's assemblages remain unanalysed in detail, but 'Oakhurst' artefacts may be present (Carter 1969). The assemblage from Layer 3 at Good Hope Shelter dates to 7670 BP and includes several Woodlot scrapers (Cable *et al.* 1980:14), along with larger, convex scrapers that suggest an affiliation to the Oakhurst Complex. Elsewhere in KwaZulu-Natal, the 9700/10 000 BP assemblage from Sikhanyisweni more closely parallels that from SA in its extreme scarcity of formal tools (Mazel 1988a), while segment-rich assemblages comparable to GWA are known at sites such as Nkupe (Mazel 1988b). The Layer 4 assemblage from Umhlatuzana has been described as 'Robberg-like' (Kaplan 1990) and, like the Swaziland site of Siphiso Shelter (Barham 1989), has a much stronger bladelet emphasis than the contemporary SA assemblage at Sehonghong. These observations support the view that bladelet-rich technologies persisted rather longer in southeastern southern Africa than elsewhere in the sub-continent (Mitchell 1995:36), but may additionally indicate an interesting, and potentially informative, degree of variability between sites within this region. At Umhlatuzana, just as at Sehonghong, the presence of naturally backed knives in both late Pleistocene and early Holocene contexts also raises the question of continuity in stone-working traditions across the Pleistocene/ Holocene boundary (Kaplan 1990:86).

Observations from Sehonghong contribute further to this suggestion that patterns of technological change from the late Pleistocene into the middle Holocene were more complex than previously thought. In particular, they cast doubt on the effectiveness of explanations relating changes in raw material usage to those in the organisation of stone tool technology since the two can be shown to have proceeded here independently of each other. Specifically, not only were opalines always the most common rock type used by Later Stone Age (LSA) hunter-gatherers at Sehonghong, but the use of coarser materials peaked in occupation pulses dating 12 200 and 11 000 BP when stone tool technology was still geared to production of large numbers of unmodified bladelets (Mitchell 1995). Contrary to what has been argued for the Eastern and Western Cape (*e.g.* Deacon 1984a; Ambrose & Lorenz 1990), changes in raw material usage and blank production did not go hand-in-hand at Sehonghong. Further evidence for continuity as much as change between the early Holocene and the late Pleistocene lies in the use of naturally backed knives as late as 7000 BP and the extreme rarity of formal tools in both the Robberg and all those Lesotho assemblages dating between 12 000 and 9500 BP (Mitchell 1993a). Indeed, looked at from the point of view of the activities that people may have undertaken at the Sehonghong site, its greater variety of pigments, higher density of grindstones and overall expediency of stone artefact manufacture group SA with the late Pleistocene horizons, even though the very much lower numbers of bladelets and bladelet cores make it impossible to see SA as 'Robberg-like.' In this respect similarities become evident between Sehonghong and a site such as Elands Bay Cave and perhaps a 'historical narrative' approach (Parkington 1993), rather than one structured in terms of successive industries, will also prove the most useful way of looking at the Lesotho sequences.

A final point raised by the early/middle Holocene assemblages at Sehonghong concerns the suitability of southeastern southern Africa for the investigation of prehistoric interaction networks (Mitchell 1996). Distributions of ostrich eggshell and seashell beads in the early and middle Holocene suggest that people using the Barkly East/Maclear area (Opperman 1987) and Rose Cottage (L. Wadley, pers. comm.) did not participate in the same inland-coast exchange network as those making use of Sehonghong, with its many seashell ornaments. Three *N. kraussianus* shells from early Holocene levels at Ha Makotoko (Mitchell 1993a) do, however, point to a connection between eastern and western Lesotho at this time. This is substantiated by the contemporary presence of ilmenite at sites in both areas and of ostrich eggshell beads at Sehonghong. Given the natural distribution of the ostrich (Maclean 1984), these beads must have come broadly from the west and the extreme rarity of beads at sites in the Barkly East/Maclear area (Opperman 1987) suggests that their source may have been the Caledon Valley (where bead-making is well-attested and ostriches were present (Mitchell 1994a; Plug 1993)), rather than the eastern edge of the Karoo; the Harrismith/Bethlehem area (an alternative potential source for ostrich eggshell) remains archaeological *terra incognita* for this period. These regional contrasts are supported by different patterns of raw material usage, despite a similar availability of rock types. Early Holocene assemblages from western Lesotho are opaline dominated (Mitchell 1994a), whereas people at Rose Cottage made extensive use of larger, coarse-grained rocks (Wadley & Vogel 1991). Similarly, the Sehonghong assemblages, as well as those from Sikhanyisweni (Mazel 1989), are opaline dominated, while those from Opperman's (1987) sites have at least as much hornfels as opalines. The congruence between these different lines of evidence points to these areas having formed fairly self-contained areas of exchange and interaction. Though technological innovations such as scrapers with adze-like lateral retouch and, later on, segments, came to be used across these zones, different choices in stone raw material use and personal ornamentation (seashell or OES beads) may have signalled differences in social identity, perhaps at the level of dialectically or linguistically different groups (*cf.* Deacon 1976; Weissner 1983; Deacon 1986). Increased concern for the recognition of such groups can, as Mazel (1989) indicates, provide a basis on which to develop more of a 'people-to-people' view of prehistory, alongside the 'people-to-nature' questions that dominated earlier generations of LSA research.

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