

The 2011 Excavation of the University of Tübingen in late MSA deposits at Sibudu Rockshelter, KwaZulu-Natal

Acting on an invitation from Lyn Wadley of the University of the Witwatersrand, a team of eight archaeologists from the University of Tübingen under the author's direction began work at Sibudu on February 16, 2011. Fieldwork continued in parallel to lab work at our dig house in Ballito until March 21. Typically, two people excavated, while one person measured finds using a total station. The remaining crew members stayed at the dig house and processed artifacts and samples. Preliminary analysis of the materials recovered from Sibudu ended on March 24 when we deposited all of the finds at the Natal Museum in Pietermaritzburg. During this period the team from Wits under Wadley's direction excavated pre-Still Bay deposits in the deep sounding in the northern part of the overall excavation.

The research of the team from Tübingen focused on six square meters in the western part of the excavation area where sediments representing younger phases of the MSA are preserved. These squares are designated C2, C3, D2, D3, E2 and E3. Team members excavated the stratigraphic units BSp (Brown Speckled) and SPCA (Spotty Camel). We worked on the middle and lower parts of BSp, designated BSp 2 and BSp3, and a fairly long sequence from the top of SPCA to SPCA 5. The crew dug about 35 cm of sediment, of which ca. 15 cm belong to BSp and ca. 20 cm belong to SPCA.

Excavation proceeded in *Abträge*, which ran parallel to the general slope of the strata and approximate overall orientation of beds. We never dug in horizontal spits since they would cut across the strata, which fall with a gentle but clear slope from northwest to southeast. We used Dibble and McPherron's EDM program to plot single finds and to measure all surfaces and features that we recorded with a Leica total station. Given the high find density at Sibudu, we did not piece-plot all finds. Instead we plotted only larger and identifiable bones, pieces of ochre, large pieces of charcoal, and larger lithic artifacts as well as all cores and tools. Crew members used 2 and 1 mm to screen buckets of sediment. We sorted the finds from the coarse screen, but did not have time to sort the materials from the fine screen.

The team also defined and excavated 9 anthropogenic features in BSp and 17 features in SPCA. These features were all easily recognizable and usually began at the top with a white ashy sediment. This white sediment was usually underlain by black and reddish brown sediments. Given that the entire deposits of BSp and SPCA are characterized by one combustion feature on top of the other, the number of features defined and the spatial extent of the features is somewhat arbitrary. Here one cannot emphasize enough that these deposits are comprised nearly completely of anthropogenic combustion features in various states of preservation. Many of them are intact, but, of course, the features have also been affected by cultural activities and a range of biological and geological processes. We collected dozens of samples for micromorphological study to help us better to characterize these deposits in the future.

The excavation produced 3089 single finds (Table 1). In all the team excavated 357 buckets from quarter meters of excavation units. These buckets form the basis of analysis for finds that were not measured in three dimensions. Depending on the nature of the *Abtrag*, the buckets ranged in size from 1 to 10 liters.

The fauna from BSp and SPCA is dominated by large mammalian species. The specimens are often heavily burnt and fragmented. A detailed analysis of the faunal remains will be undertaken in the future. The same applies for the rich botanical remains from the excavation.

Among the inorganic finds the team recovered 86 pieces of ochre. This number includes mainly pieces of red-brown color. In all 14 pieces preserve facets formed by rubbing the finds on a hard surface to produce powder. Debate continues on the uses of ochre powder, but Wadley has demonstrated using observations from Sibudu that ochre powder was often used to produce adhesives.

By far the largest class of material recovered is chipped stone. This category includes 2137 single finds and 33 700 pieces of chipped stone from the coarse screen. The most common raw materials are dolerite and hornfels, with far lower amounts of quartzite, jasper, quartz and sandstone. If one looks at the entire assemblage of chipped lithics, 828 originate from BSp and 1255 from SPCA. A small number of other finds come from other strata exposed in profiles.

An initial examination of the assemblage including 25 cores and 353 tools provides a preliminary assessment of the lithics from BSp and SPCA. Here I will not distinguish between the relatively subtle differences between the stratigraphic units and will describe the combined assemblage as a whole. The stone napping shows two main reduction sequences. One is based on a concept of removals parallel to the plain formed by the intersection of the two surfaces within a two face system. These include examples of unidirectional, centripetal and bidirectional reduction. Most of the cores document the production of relatively thin products, but one unidirectional core documents the production of thick triangular products like those often seen among the debitage.

The other main class of cores is single platform cores. Among these we see two main groups. One preserves removals on the narrow face and one on the broad face of the core. Products tend to be laminar, especially in the cases of the cores with reduction along their narrow face.

In addition to the “parallel” and platform cores, we recovered two irregular multi-platform cores that included partially battered surfaces. Two cores also show signs of bipolar knapping. These small cores of hornfels indicate that in some cases the core reduction sequence ended in bipolar chipping before the knappers discarded the waste cores.

Two pieces of rounded sandstone show pitting that probably results from stone knapping. The larger one weighs 648 grams, the smaller one 61. The morphology of the blanks, cores and tools is consistent with the use of sandstone hammers for some of the core reduction and tool production. The blanks show a mix of plain, finely and coarsely faceted striking platforms. Many blanks preserve lips that could result from tangential knapping using a soft hammerstone. Other blanks and cores document direct hard hammer percussion. The collection includes isolated thinning flakes from invasive retouch and numerous pieces of small debitage resulting from retouching the edges of tools. The great abundance of retouching debitage is consistent with the high proportion of tools in the assemblage. Preliminary results suggest that well over 10% of the blanks from this year’s excavation have been retouched.

The retouched pieces from BSp and SPCA include a wealth of forms. BSp produced 105 tools and SPCA 239 (Tables 2 & 3). The assemblage includes a great abundance of retouched tools and

tool fragments. As with all categories of finds, many tools are damaged by thermal shock from fires at the site.

The assemblage of tools includes many unifacial points, convergent scrapers, steeply retouched blades and flake fragments, pieces with retouched projections similar to perçoirs, and many other forms including isolated burins. A small portion of the points shows damage to the tip that appears to result from impact fractures, perhaps in connection with use as a projectile. The wealth of retouched finds can be used to characterize the assemblages from BSp and SPCA. The abundance of unifacial points in both BSp and SPCA is particularly remarkable.

Although the team from Tübingen has just started research at Sibudu, already the work has produced useful results that will help us to characterize adaptations during the later stages of the Middle Stone Age. One goal of this research is to characterize the artifact assemblages and other materials recovered from the site to document the cultural variability in this period. Following the work of Z. Jacobs, BSp and SPCA both date to about 58,000 years ago and may document parts of the same cultural systems or result from the activities of closely related groups of people. In the future we hope to give these people a stronger identity by studying the sequence from Sibudu. Since the site represents the best record for this period preserved in southern Africa, one could consider using the site as a type locality for characterizing the social-cultural record of the later parts of the MSA. Future work will address this issue more systematically. Certainly, it strikes the author as unusual and ultimately inappropriate to refer to these remarkable assemblages as the “Post Howiesons Poort” rather than to name and characterize the Sibudan assemblages based on their own archaeological signatures.

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Category	n	%
Chipped Lithics	2137	69.2
Fauna	674	21.8
Charcoal	173	5.6
Ochre	86	2.8
Non-Chipped Stones	19	0.6
<i>Total</i>	<i>3089</i>	<i>100</i>

Table 1. Sibudu 2011. Single finds.

Layer	Unifacial point	Side Scraper	End Scraper	Transverse Scraper	Convergent Scraper	Lateral Retouch	Other tools & fragments	Total
BSp	44	8	3	4	2	11	33	105
SPCA	111	35	12	7	15	15	44	239
Total	155	43	15	11	17	26	77	344

Table 2. Sibudu 2011. Tools from BSp and SPCA.

Layer	Tools	Cores	Blanks	Angular Debris	Total
BSp	3	2	41	1	47
BSp2	53	6	342	12	413
BSp3	49	5	308	6	368
SPCA	36	3	219	5	263
SPCA2	48	4	241	4	297
SPCA3	19	2	92	2	115
SPCA4	43	1	126	7	177
SPCA5	93	2	304	4	403
<i>Total</i>	<i>344</i>	<i>25</i>	<i>1673</i>	<i>41</i>	<i>2083</i>

Table 3. Sibudu 2011. Chipped lithics single finds from BSp and SPCA.