ON A SEARCH FOR ANCESTRAL ROCK ART IN THE SOUTH-EASTERN KALAHARI (SOUTH AFRICA)

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The finding in Excavation 6 material from Wonderwerk Cave of a few mobiliary slabs in a Late Fauresmith context dated to 270 000 years ago raised the question of for how long back subcontinental petroglyphs could have survived at open sites, where less restrictive rock surfaces may have permitted a fuller manifestation of the rock art repertoire being produced at any given time.

To investigate that matter, a study centred on the south-eastern kalahari was launched in 2000 for three reasons, of which the first relates to findings which indicate that its present c. 300 mm annual rainfall fell by up to 60% during the last Ice Age, which suggests that human occupation of that region was probably confined to warm and wet interglacial intervals. The second reason was the presence there of a range of quartzite hills, the Korannaberge, in small areas of which are smoothed rock surfaces and rock pools, formed by moving ice in Permo-Carboniferous times, of which the latter form the sole regional sources of semi-permanent water, and must thus have been the focus of past occupations, next to smoothed surfaces ideal for petroglyph production. And the third reason is that the metamorphosed Precambrian quartzites are highly resistant, which means that petroglyphs on them survived for very long, with pertinent age estimates possible by way of the optical dating of close-by artefact-bearing strata, as also the microerosion method, when calibrated via values for the climatically comparable Spear Hill site in the Pilbara of Western Australia.

Many petroglyph sites in the study area were inspected, but more detailed work has, as yet, been confined to only three localities, concerning which details are as follows:

Nchwaneng

At this site, the northern slopes of an inselberg run down to a 45 × 70 m smoothed rock surface with flanking pools, where recording in 2001 documented some 1 500 images, 80% of which show abrasion, that are dominated by cupules, but with many non-iconic images, a few human figures, and a 4% balance of semi-naturalistic zoomorphs. A small 1986-1987 excavation on its western margin revealed two Later Stone Age industries, dating from 8-0.3 ka and underlying Middle Stone Age in the 130-70 ka range, while just to the north is a surface spread of Middle Fauresmith with an age of at least 400 ka, based on a dated similar assemblage at nearby kathu Pan 1, all of which points to Holocene, Last Interglacial and Holsteinian occupations. A microerosion study in 2009 revealed three intervals of petroglyph production, of which the youngest produced estimates of E6060 BP for an eland figure, E5144 BP for a rhinoceros image, and E1900 BP for shallow geometrically-arranged cupules, while older were cupules and circle outlines predating 50 ka, and still earlier a phase confined to very worn cupules (figure).
Cupules of presumed Fauresmith and MSA antiquity at the main waterhole of Nchwaneng.
Potholes Hoek

This locality, on the lower western side of a saddle on one of the northernmost Korannaberge hills, comprises a 12 × 26 m smoothed surface pocked by a few dozen potholes, on the western edge of which erosion of flanking kalahari sands has exposed an underlying rubblerich stratum with some likely Acheulian artefacts, while further upslope are sparse scatters of fresh Middle Stone Age and lightly smoothed Acheulian. Microerosion study showed two discrete episodes of petroglyph production there, the youngest comprising small cupules and outline circles, whereas the older petroglyphs are confined to larger cupules that are significantly more worn, with both groups worn far beyond the dating limit of the microerosion technique.

Klipbak 1

Near the crest of another Korannaberg hill is a rock pool and an adjacent 9 × 20 m smoothed surface that is weathered, with reconnaissance revealing sparse Ceramic Later Stone Age near the petroglyphs, some earlier Later Stone Age further upslope, a Middle Stone Age scatter on the eastern side of the hill, and some likely Acheulian material in an eroded area downslope of the rock sheet. Mapping in 2001 showed the support to be covered by some 570 cupules, 40 outline circles, 30 rubbing areas and 5 meandering lines, all weathered bar one or two reworked forms, while on nearby slabs are fresh hammered outlines of a “giraffe”, three “eland”, two human male figures, one holding a “staff”, and an indeterminate “antelope” minus head with a microerosion age of £1600 BP.

Conclusions

A consideration of data bearing on intervals when rainfall sufficed to sustain humans in the study area, the timespan of lithics found in close proximity to the Nchwaneng petroglyphs, and temporal inputs provided by the microerosion measurements, are here taken to support the following petroglyph groupings on the resistant quartzites of the Korannaberge:

– first phase: Relatively well-made large deeply hammered cupules that occur in unstructured clusters which are, given their considerably greater age than the following group, conservatively linked to a 400 ka-old phase of the Fauresmith. Observed at Nchwaneng and Potholes Hoek;

– second phase: Usually smaller and shallower cupules that occur in small groups with well-shaped and typically 8 cm wide circle motifs, that also fall beyond 50 ka and that are best referred to the Middle Stone Age. Observed at all three sites;

– third phase: Much more recent petroglyphs with variable complements of non-figurative and iconographic motifs that contiguous lithics and microerosion readings show to span much of the Holocene. Observed at Nchwaneng and Klipbak 1.