EARLY EVIDENCE FOR HERDERS IN THE NAMIB*

B. H. SANDELOWSKY
P.O. Box 11174, Klein Windhoek, SWA

J. H. VAN ROOYEN
Forensic Laboratory, SAP, Pretoria

J. C. VOGEL
Natural Isotopes Division, NPRL, Pretoria

In 1972 an archaeological project was initiated, the aims of which were to reconstruct the past environment in the Namib Desert and to trace the history of pre-European populations and their adaptation to this environment (Sandelowsky 1974, 1977). In the course of the project an excavation was carried out in a rock shelter near an Inselberg called Mirabib (23°27, 8'S, 15°19, 5'E) on the plains 22 km N of the Kuiseb River and 88 km inland from the coast.

Near the surface of the deposit in this shelter and eroding out along the dripline, several superimposed discrete layers, each about 2 cm thick, were found. On the basis of their light brown appearance and the high organic content of the material these have been interpreted as dung accumulations. Modern artefacts such as enamel ware, porcelain and glass, which would have indicated a recent date for the deposit, were conspicuously absent in the excavated material. Apart from seven potsherds and five metal fragments all artefacts in the deposit were made of stone, bone, vegetable fibre, leather and ostrich eggshell (Sandelowsky 1977). Charcoal from just below a patch of 'dung floor' towards the back of the shelter (Square E 35) gave a radiocarbon date of 5190± 75 years B.P. (Pta-1011), while a sample from the bottommost layer in Square C/D 34 yielded an age of 8410±80 years B.P. (Pta–1368), indicating that the site was occupied mainly during the first half of the Holocene period.

During a visit by two of us (B. H. S. and J. C. V.) a sample was collected from the lowest of the three superimposed dung layers in the open section of Square F/G 34. After pre-treatment of the material with dilute acid the sample contained about 15% organic matter which was used for radiocarbon dating. At the same time several hairs were separated from the sample for microscopic identification. Another sample was cultured for bacteria but proved to be practically sterile (G. Louw, pers. comm.). The radiocarbon analysis gave the following result:

Pta–1535	Mirabib dung floor	1550±50 B.P. AD 400

The figure is corrected for variations in isotope fractionation. The relative ^{13}C content, δ^{13}, was −21,5 ‰.

The hair was examined by one of us (J.H.v.R.) under a light microscope as well as with a scanning electron microscope and proved to belong to sheep, although the breed could not be determined with certainty. The specimens consisted of hair, not wool, and their microscopic patterning resembled that of either the fat-tailed or the Persian breeds of today (see for instance Krölling & Grau 1960). Since vegetation is very sparse on the gravel plains, the occupation of the Mirabib Shelter must have been only sporadic. Possibly the site was visited by herders living more permanently in the Kuiseb River valley some 22 km to the south. That this seems to have been the case is further indicated by the relatively low δ^{13} value of the dung, −21,5 ‰: this suggests a browsing diet for the sheep, since all the grass in the region is of the C_4 photosynthetic type with a much higher ^{13}C content (Vogel & Seely 1977), and there is very little vegetation near the shelter other than grass.

The findings reported here are thus far the oldest direct evidence for domesticated animals and, by implication, for herders in South West Africa. All other dates for groups practising animal husbandry in the region are later than A.D. 1450 (Wendt 1975).

In so far as the introduction of ceramics was concurrent with the appearance of herders, some other ^{14}C results are relevant: A date of 1745±35 B.P. (GrN–5297) for the base of the deposit containing potsherds in the Eros Shelter, Windhoek (Vogel 1970) points to the somewhat earlier occurrence of ceramics in the region. At the Apollo 11 Cave 50 km N of the Orange River a thin lens at the base of the pottery-bearing level has yielded three rather widely differing dates in the same time-range, viz. 1460±55 B.P. (KN–I 546), 1670±55 B.P. (KN–I 870) and 1960± 45 B.P. (Pta–1918) (Wendt 1974, 1975; Vogel & Visser 1979). This lens deposit is, however, too thin to establish accurately the first occurrence of pottery in the cave. Two much earlier dates of 2530±80 B.P. (UCLA–724 A) and 2600±50 B.P. (Pta–1556) for the ceramic horizons in the Big Elephant Shelter, Erongo Mountains, have also been reported (Wadley 1976). Since the stratigraphy is 'extremely complex' and the shallow deposit also gave dates of 1400± 80 B.P. (UCLA–724 B) and 1080±50 B.P. (Pta–1558), it would be prudent to await substantiation from other sites before accepting such an early date for pottery in the territory.

Further south, in the Cape Province, ceramics first seem to appear at the beginning of the Christian era: In Nelson Bay Cave, Robberg, at a date just younger than 1930±60 B.P. (GrN–5703) (Vogel 1970) and at Die Kelders Cave in strata dating to 1960±85 B.P. (GX–1688) and 1960±95 B.P. (GX–1687) (Schweitzer, unpublished). Although Schweitzer originally stated that no evidence of sheep was to be found in these levels (layers 7–12) (Schweitzer 1974: 81), Klein has

* Received January 1977, revised January 1979

1979. *S. Afr. archaeol. Bull.* 34: 50–51.

subsequently identified some teeth discovered here as positively belonging to sheep (Schweitzer, pers. comm.). In the overlying layer 2 abundant remains of sheep were found. Three measurements for this level (GX–1685, GaK–3955, GaK–3877) each with a rather large margin of error, give a combined result of 1570±60 (A.D. 380), while at the Boomplaas Cave near Oudtshoorn three ^{14}C-samples from the top of and just below a dung accumulation with sheep bones furnished a combined date of 1630±35 (A.D. 320: UW–337, UW–307, UW–338) (Deacon *et al.* 1976, 1978). These two sites provide the best established evidence for early herding in the Cape Province. Pottery and sheep have also been reported from a shell midden at Hawston dating to 1860±60 B.P. and 1900±40 B.P. (Pta–834 and Pta–835: Avery 1975) and from Byeneskranskop dating to 1880±50 B.P. (Pta–1865: Schweitzer, pers. comm.).

Since these dates clearly predate the presence of herders at Mirabib by some centuries, older sites may yet be discovered in South West Africa. On the other hand the dispersion of domestic stock need not necessarily have taken place via this region. We therefore consider the search for similar early occupation sites in different regions north of the Orange River to be of high priority in our overall objective of reconstructing the prehistory of the subcontinent.

References

DEACON, H. J., DEACON, J. & BROOKER, M. 1976. Four painted stones from Boomplaas cave, Oudtshoorn district. *S. Afr. archaeol. Bull.* **31**: 141–5.

DEACON, H. J., DEACON, J., BROOKER, M. & WILSON, M. L. 1978. The evidence for herding at Boomplaas Cave in the southern Cape, South Africa. *S. Afr. archaeol. Bull.* **33**: 39–59.

KRÖLLING, O. & GRAU, H. 1960. *Lehrbuch der Histologie und vergleichenden microskopischen Anatomie der Haustiere*. Berlin: Paul Parey.

SANDELOWSKY, B. H. 1974. Archaeological investigations at Mirabib hill rock shelter. *S. Afr. archaeol. Soc. Goodwin Series* **2**: 65–72.

SANDELOWSKY, B. H. 1977. Mirabib, an archaeological study in the Namib. *Madoqua* (Windhoek) **10**: 221–83.

SCHWEITZER, F. R. 1974. Archaeological evidence for sheep at the Cape. *S. Afr. archaeol. Bull.* **29**: 75–82.

VOGEL, J. C. 1970. Groningen radiocarbon dates IX. *Radiocarbon* **12**: 444–71.

VOGEL, J. C. & SEELY, M. K. 1977. Occurrence of C–4 plants in the Central Namib Desert. *Madoqua* (Windhoek) **10**: 75–8.

VOGEL, J. C. & VISSER, E. 1979. Pretoria radiocarbon dates II. *Radiocarbon* **21**: in press.

WADLEY, L. 1976. Radiocarbon dates from Big Elephant shelter, Erongo mountains, South West Africa. *S. Afr. archaeol. Bull.* **31**: 146.

WENDT, W. E. 1974. 'Art mobilier' aus der Apollo 11-Grotte in Sudwest-Afrika. *Acta Praehist. et Archaeol.* **5**: 1–42.

WENDT, W. E. 1975. Ein Rekonstruktionsversuch der Besiedlungsgeschichte des westlichen Gross-Namalandes seit dem 15.Jahrhundert. *Jl. SWA Wissenschaft. Gesellschaft* **29**: 23–56.