

## Abstract

The purpose of this thesis was to study human adaptation in a desert environment during the Later Stone Age. Nine open-air sites from the coastal desert of Namaqualand, South Africa were excavated and analysed with the focus on identifying settlement patterns and subsistence strategies within the context of a desert environment. Using radiocarbon dates and palaeoenvironmental indices, it was noted that most occupation of the region is linked to periods that were cooler and wetter than today. There is more evidence for occupation after the mid-Holocene warm phase, although there is a notable dearth of sites dating to the Medieval Warm Epoch, and a significant increase during the Little Ice Age. Using faunal and stable isotope analysis, it was found that people ate mixed diets that included both marine and terrestrial species; there is little evidence of heavy reliance on marine food as documented elsewhere along the South African coastline in the late Holocene. The overwhelming dominance of short-stay sites with limited ranges of artefacts suggest that settlement patterns were very mobile, with the paucity of water as a potential catalyst. While people from other areas dealt with increasing population pressure in recent millennia by becoming more sedentary and perhaps utilising delayed-returns strategies, there is little evidence to suggest that the carrying capacity of Namaqualand was being tested. In addition, this region has been suggested as one of the points of entry for pastoralism and pottery into South Africa. There is, however, no evidence for substantial changes in economy or material culture in the last 2000 years, so these items probably arrived at the Namaqualand coast through diffusion rather than migration. In addition, this research has, for the first time, identified special-purpose sites where people mass harvested springbok (*Antidorcas marsupialis*), African penguins (*Spheniscus demersus*) and angulate tortoises (*Chersina angulata*). There is also evidence for intentional human hunting/collecting of micromammals, so that humans should be included in the classification system developed by Andrews (1990) as a category 5 predator. Finally, the locations of a prehistoric Cape fur seal (*Arctocephalus pusillus*) rookery and an African penguin hatchery were identified, which will be of value to long-term ecological studies.