

Current issues in human origins research in South Africa

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MANY OF THE ARTICLES IN THE FOLLOWING pages were originally presented at the American Association of Physical Anthropologists annual meeting in April of 2002, in Buffalo, New York, as part of a symposium entitled 'Australopithecines to AMHS: Current Palaeo-anthropological Research in South Africa'. The goal of this symposium was to explore the breadth of research currently being undertaken in this country. Although there have been some new additions to this body of material (and a few deletions), the goal remains unchanged for this publication.

These papers represent current palaeo-anthropological research in South Africa broadly construed — investigations into hominid taxonomy and morphology, ancient diets and environments, early culture, site formation and excavation are all included. South Africa has a unique fossil record that reflects important events, both ancient and recent, and therefore the temporal range of the papers is also broad — from the Pliocene to the late Pleistocene. This remarkable time depth contributes towards a better understanding of ancestors living three million years ago, as well as the earliest members of our species — anatomically modern *Homo sapiens* (AMHS). The articles that follow fit broadly into four different categories: describing and analysing the fossil remains themselves, locating and excavating the sites they emerge from, reconstructing the environments they lived in, and understanding their behaviour.

South Africa is home to one of the most important fossil hominid resources in the world — the Cradle of Humankind World Heritage Site — and the study of the fossils that emerge from this region is ongoing. The reconstruction and description of such material plays an essential role in our understanding of early human evolution, and papers by Toussaint, Macho, Tobias, Partridge and Hughes (page 215), and by Kibii and Clarke (225), add to this body of knowledge. The classification of such material is often complex,

and Thackeray (241) and Moggi-Cecchi (268) both tackle the thorny issue of early hominid taxonomy using quantitative methods. Ackermann (255) adds a cautionary note to this, showing that the standard approach used to evaluate fossil taxonomy may be imprudent.

The hard work of locating and excavating hominid fossil sites also plays a crucial part in all palaeo-anthropological studies, and articles by Berger, de Ruiter, Steining and Hancox (276), Berger and Lacruz (279), and Reynolds, Vogel, Clarke and Kuman (283) describe important contributions to this endeavour. Lacruz, Ungar, Brink and Berger (286) also show how GIS analysis can offer important insight into palaeontological field research.

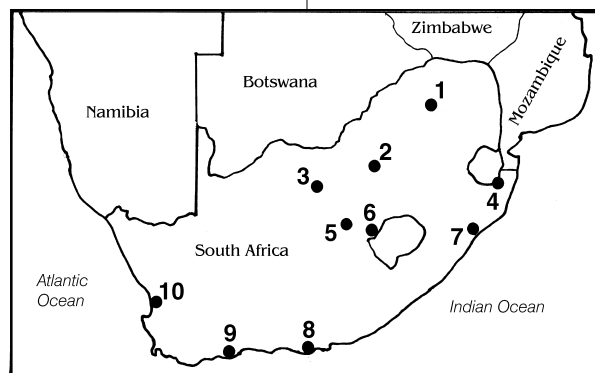
South African researchers pioneered methods for reconstructing past diets and environments through stable light isotope analysis, and these methods are being used to understand the ancient environments of early hominids. Sponheimer and Lee-Thorp (273) use bovid data to show that, three million years ago, fossil hominids from Makapansgat in the Limpopo Province were probably living in a relatively wooded environment. In a companion paper, Luyt and Lee-Thorp (271) use data from Sterkfontein bovinds to show that the major shift to open environments in this region occurred around 1.7 million years ago (Myr), somewhat later than previously thought.

Human ancestors started using stone tools around 2.5 million years ago, and the record of material culture in South Africa

picks up soon thereafter, and continues in abundance to the present. Backwell and d'Errico (259) report on new bone tools from Swartkrans, *c.* 1.8–1 Myr, and suggest that robust australopithecines were the hominids using them. Kuman (251) discusses how the formation of sites can influence the preservation of Stone Age artifacts. Parkington (243) and Wadley (247) tackle the other end of the human lineage, addressing the difficult issue of recognizing the archaeological evidence for the emergence of modernity.

Also included in this special suite are four articles which address important current issues in palaeo-anthropological research. The distinctive and distinguished South African tradition in palaeo-anthropology has spanned most of a century, and continues to be both vibrant and valued, while also facing significant challenges. Brain (235) reports on the expanded role of an important funding agency for South African palaeo-anthropologists. Sealy (238) offers a thoughtful perspective on managing museum collections of human remains. The museum's role in promoting heritage awareness by means of materials for teaching and research is described on page 240. Van der Merwe (237) discusses how legislative issues surrounding research permits are negatively affecting the practice of archaeologists and palaeontologists.

I wish to thank all of those who participated in the original symposium in Buffalo, as well as those who have graciously added their contributions to this special issue. The topics covered here are by no means exhaustive — plenty of excellent, well-established research programmes as well as emerging research areas are not represented — but are indicative of the scope of research being pursued in South Africa. To the Reader: I hope you will enjoy this glimpse into South Africa's remarkable ancient heritage, and will pass it on to others — especially young people. There is so much more to be done.



Map of important palaeontological and archaeological sites in South Africa, to which reference is made in the following pages: 1, Makapansgat; 2, The 'Cradle of Humankind World Heritage Site', which includes Sterkfontein, Swartkrans, Kromdraai, Drimolen, Plovers' Lake, Gondolin, Coopers and Gladysvale; 3, Taung; 4, Border Cave; 5, Florisbad; 6, Rose Cottage; 7, Sibudu; 8, Klasies River Mouth; 9, Blombos; 10, Elands Bay Cave.

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