

3. Understanding Hominid Landscapes at Makapansgat, South Africa

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Abstract

The Makapansgat Middle Pleistocene Research Project has been investigating hominid land use patterns in the immediate vicinity of the Cave of Hearths, Makapansgat, South Africa. Field survey of a 15 km² area around the cave reveals a range of large and mini sites, as well as a spread of individual find spots. Some of this pattern relates to post-depositional processes at work in the landscape, but other aspects may include hominids' perceptions of the ease of movement around the landscape and their preference for particular landscape features. Two experimental research projects to help us understand hominid perceptions of landscapes are reported. One project draws on research in environmental psychology suggesting humans (and hominids) may have particular preferences for understanding and exploring landscapes. The other focuses on the energetics of movement in traversing and foraging in this landscape, as measured by heart-rate. Initial results indicate that it is difficult to predict energy expenditure on the basis of distance travelled, but possible on the basis of time spent engaged in particular activities.

Introduction

Several years ago Glynn Isaac (1984, 44) noted that artefacts and assemblages are not simply discrete sets of pieces; they were the continuous products (and field residues) of a dynamic system of hominid activities around a landscape. Somewhat evocatively, he called them "stone age visiting cards" (Isaac 1981). Perhaps more than for any other geographical area, the extensive survival of Palaeolithic artefacts and sites in Africa has challenged archaeologists to develop ways of making links between the dynamics of hominid activities and their material residues. Attention, Isaac argued, needs to be given not just to the typological and technological characteristics of individual pieces or assemblages but also on the character and degree of variability from the individual artefact through to the large site. This requires models for the nature of hominid activities in a landscape setting, and methods for investigating the full spread of artefacts and other archaeological remains in space (Isaac 1981).

Pioneering work was undertaken by Behrensmeier and Hill (1980) and Foley (1981) and Isaac (1981). Since then archaeologists, and others, have produced an extensive literature on the development and application of a whole series of approaches to determining the deposition and post-depositional processes related to archaeological assemblages (for example Schick 1987; Oliver *et al.* 1994).

Archaeologists have also been investigating the relationships between human subsistence economies, landscapes and the spatial distribution of resources. This has developed from the original site catchment analysis of Higgs and Vita-Finzi (1972), through the consideration of resource abundance (Foley 1977) to studies of site exploitation territories (Bailey and Davidson 1983), and on to approaches stimulated by developments in ecology such as foraging theory (Mithen 1990; Blumenschine and Peters 1998). The present paper focuses on models for landscape analysis in the context of an African setting. In particular, we report on a landscape field survey at Makapansgat in South Africa, and on the initial results from two experimental approaches to understanding hominid behaviour in landscapes. One approach looks at environmental perception, the other focuses on the energetics of landscape use, focussing on the work of graduate students associated with the Project (McCraith and Nelson).

Makapansgat, The Cave of Hearths and the Archaeological Landscape

The Makapansgat Middle Pleistocene Research Project has been investigating the archaeological record of