

## ARCHAEOBOTANICAL EVIDENCE OF THE EMERGENCE OF PASTORALISM AND FARMING IN SOUTHERN AFRICA

Olatoyan, J.<sup>1</sup>, Neumann, F.H.<sup>2</sup>, Orijemie, E.<sup>3</sup>, Sievers, C.<sup>1</sup>, Evans, M.<sup>1</sup>,  
Mvelase, S.<sup>2</sup> & Schoeman, A.<sup>1</sup>

<sup>1</sup>University of the Witwatersrand, School of Geography, Archaeology and Environmental Studies,  
Johannesburg, South Africa, Jerry.Olatoyan1@students.wits.ac.za

<sup>2</sup>University of the Witwatersrand, Evolutionary Studies Institute, Johannesburg, South Africa

<sup>3</sup>University of Ibadan, Department of Archaeology and Anthropology, Ibadan, Nigeria

There are contrasting models citing migration and/or diffusion for the emergence and spread of pastoralism and farming in southern Africa during the first millennium AD. These models, which are often based on archaeological signatures such as pottery, pits and bins, grindstones, iron slags, and iron objects, remain equivocal and controversial. This calls for a synthesis of reliable, independent proxies (e.g., palynology, phytoliths, anthracology) to ascertain a narrative of pastoralism and farming that is consistent with existing archaeobotanical and archaeological data and provide new insights for identifying anthropogenic impacts and cultivars in the palaeorecords. Harnessing archaeobotanical evidence is potentially viable for tracing the spread of pastoralism and farming in the first millennium AD because of the associated anthropogenic practices, the impact of which likely resulted in distinct patterns of vegetation changes. We assess this impact through the synthesis of published archaeobotanical evidence of pastoralism and farming, as well as vegetation changes from southern Africa in the first millennium AD. In addition, we present the palynological results of three Iron Age cow dung samples from northern South Africa emphasizing the role of *Tribulus* (puncture vine) as an indicator for cattle farming. We also highlight gaps in the current knowledge of pastoralism and farming and potential areas for further research. It is commonly argued that the decline of forests during the first millennium AD relates to climatic changes alone. This argument often precludes anthropogenic effects on vegetation. A reassessment of the relationship between vegetation, climate, and human activities in southern Africa revealed clear evidence of human occupation during the same period. We hypothesize that the pattern exhibited by forest tree pollen decline, coupled with the increase of open-land indicators, pioneer trees as well as the spores of coprophilous fungi are reflective of, and consistent with anthropogenic activities of pastoralists and farmers.