1. African Farming: an interdisciplinary pan-African perspective

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Rural African farming has often been viewed as ephemeral shifting cultivation with low output and high unreliability. At the same time it is often understood as static and relatively unchanged for centuries. More recent historical and archaeological studies of African ‘intensive’ farming systems have challenged this narrative, yet detailed analyses of such systems and the potential to draw ‘lessons’ from them for the future remain under-developed and restricted to relatively few locations. This paper presents an overview of a new research network designed to share and generate novel in insights into African farming systems across the continent. The network links projects in Kenya (Marakwet), Nigeria (Tiv) and South Africa (Bokoni) in an attempt to develop comparative and pan-African approaches, as well as building unique research capacity, experience, approaches and knowledge in Africa and for Africa. In the paper we introduce each of the partner projects and the specific interdisciplinary and locally engaged approaches under development. We highlight some of the main theoretical and methodological issues addressed by the network, including diachronic approaches to physical geography (soils, water, vegetation), demography (population densities, settlement patterns), farming practice (crops and crop regimes, falling, fertility), regional exchange (reciprocity, market exchange, related pastoral systems), broad cultural changes (the nation/region, governance, religion), land tenure (kinship and inheritance, land law), landscape (mapping, perception, temporality), challenges of integrating science and humanities disciplines (social anthropology, landscape archaeology, geo-archaeology, archaeobotany, palaeoecology) and local community engagement (public anthropology/archaeology, indigenous knowledge).

2. Relating domestic space and settlement patterns to farming in Marakwet (Kenya) and beyond.

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In 1986 Henrietta Moore published a seminal volume on space and gender relations in Marakwet, Kenya. The volume was primarily anthropological in nature but has had an important impact in archaeology because it demonstrated the active role of material culture and domestic space in the daily production of identities/subjectivities and outlined the complexities of structured material deposition. An interesting but less often cited conclusion of the Marakwet study was the demonstration that domestic compounds undergo temporal lifecycles of their own developing from
single houses through to multiple structures (houses, granaries, goat kraals) and refuse deposits (ash, chaff) and then declining back toward the single house. This domestic temporal cycle mirrors the social life of the family which grows (with the addition of a wife(s) and children) and then declines through time. Importantly, the domestic ‘life-cycle’ which attends the single compound can be extended both spatially and temporally to wider lineages and clans and, through kin-based land tenure, to the cultivated fields and other landscape features (field boundaries, irrigation furrows, meeting places, initiation sites). Extending the basic principles of household growth, decline and abandonment across the landscape and through time allows for detailed examinations of changing demographic patterns, changing patterns of land-use and intensity, and household and gendered agricultural decision making. This paper will present the opportunities for archaeological study of the Marakwet compound and by extension opportunities for broader understandings of the Marakwet agricultural landscape. Comparison will also be made with the archaeology and ethnography of domestic compounds in both Bokoni and Tiv.

3. The temporality of African farming landscapes: irrigated farming in Marakwet (Kenya) and elsewhere.

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A growing body of interdisciplinary literature focuses on the history and development of Eastern and Southern African Farming systems during the later Iron Age and up to the present. Much of this literature either focuses on the technical operation of systems at a single generalised point in time, noting only minor temporal changes i.e. archaeological studies of sites such as Engaruka (Tanzania) or Nyanga (Zimbabwe); or encompasses largely synchronic ethnographic studies such as those of Konso (Ethiopia), Marakwet (Kenya) or Sonjo and Usambara (Tanzania). In most of these studies the agricultural systems are portrayed as relatively static through time and only marked by distinct punctuated changes, often resulting in systemic genesis or decline/collapse (for example at Engaruka or Nyanga). However, focusing on the lived temporal experiences of farming systems offers a much more nuanced approach wherein the farming landscape and its built features (field boundaries, irrigation channels, terracing, soils, vegetation) are temporally and spatially fluid; shifting, moving, ebbing and flowing, across the landscape in relation to multiple temporal cycles. Ingold (1993) points us towards the human determinants of these temporal cycles as deriving from the lived ‘taskscape’ and encompassing the daily actions of farming, the seasonal cycles of planting and harvesting, the life cycles of birth, initiation, marriage, and death, the household and inter-generational cycles of family growth and decline, and longer-term cycles of inheritance and kinship. These temporalities inherent within the landscape help us to explain temporal and spatial variations in the archaeological record and ongoing spatial and temporal ‘trends’ which extend into the present. Shifting from a discontinuous view of the past characterised by punctuated change (also often thought to originate outside of the ‘human realm’ i.e. climate), towards one of continuous actions with differing pace, signals a crucial step in the development of a truly diachronic and humanistic approach within archaeology. The temporality of African farming landscapes is explored in relation to the irrigation and field systems of the Marakwet in Northwest Kenya and the other partner projects (Tiv, Bokoni) within the African Farming research network.
4. The archaeobotany of crops and crop processing in Marakwet

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Recent preliminary archaeobotanical studies in Marakwet, Kenya have identified the presence of more than forty food crops/plants. These include twenty-two regularly recurring plants of which four have African origins, nine Asian and nine American. The African cereal crops include seven varieties of sorghum (*Sorghum bicolour*) and fifteen varieties of finger millet (*Eleusine coracana*), of which at least five represent land-races with significant historical and archaeobotanical potential. These land-races can contribute both to understandings of the particular history of farming in Marakwet, as well as to broader understandings of the history, development and spread of sorghum and finger millet across Africa and beyond. Important is the potential to understand the social mechanisms through which land-races are maintained and exchanged across regions and we here report on preliminary observations along these lines. At the same time, the various imported crops speak to a multi-layered history of food production from deep antiquity through to colonial and post-colonial practice, and including recent 20th and 21st century ideas of environmental change/sustainability, food insecurity and ideas of taste and modernity. Variability in the processing of indigenous cereals has also been identified through ethnoarchaeological analysis of grinding and pounding implements which can be linked to more secure archaeological contexts. In this paper we outline the various potentials of detailed archaeobotanic study in Marakwet and the multiple scales at which such studies can contribute to local, regional, continental and global food histories.

5. New Perspectives on the Farming Traditions of the Tiv in Central Nigeria

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The Tiv are known to be one of the ancient farming societies in the Benue valley of central Nigeria. They are traditionally known to cultivate tubers (yams and water yams) with the recent inclusion of cereals such as maize, sorghum, millet, cow pea and groundnuts. Human occupation of the valley dates to the third century BC. Archaeological investigations of the Tiv country have focused on settlement archaeology and geoarchaeology with little attention on their farming traditions and how they have changed through time.

This presentation will attempt to outline future research strategies for the understanding of the history of farming in the Tiv country. The main objectives of the project would be to establish (a) the earliest crops associated with the Tiv, (b) the timing and introduction of ‘new’ crops and dynamics associated with the event, (c) the effects of the latter on their indigenous farming traditions, and ascertain, if any, (d) the uses of plants in symbolisms and linguistic expressions of the people. We shall review our observations and experience on the field at Marakwet, Northwest Kenya to project into the nature of the data we shall be
exploring. Parallels would be explored between our understanding of the Marakwet project and the work of Paul Bohannan on the Tiv farm and settlement and then propose future lines of investigation of Tiv farming that would focus on the socio-cultural and environmental factors that influence farming, land-use and crops. We shall also explore the methods the study would rely on, viz anthropology, ethnography and environmental archaeology (geoarchaeology and palynology) that would provide the needed information.

6. THE ARCHAEOLOGY OF KOMATI GORGE VILLAGE HOUSEHOLDS
Alex Schoeman and Team, University of Witwatersrand

Complex networks of stonewalled villages and homesteads mark the extent of Bokoni, eastern South Africa. These sites were occupied from the mid-second millennium AD to the nineteenth century and extend over thousands of square kilometres. The sheer scale of this complex is daunting, and it is not surprising that most researchers have focussed on regional distribution patterns and processes in Bokoni. The local complexities, variability and negotiations that shaped Bokoni, however, are barely visible at a regional scale. Exploring small scale and temporally bound spaces, such as households, could help elucidate some the dynamics that shaped Bokoni.

In this paper, I report on the archaeology of households in one of the Bokoni villages - Komati Gorge. This village was occupied for several generations during the earliest phase of settlement in Bokoni. In contrast to the pre-planning that shaped the layout of later eighteenth century villages, such as Khutwaneng, the growth of the Komati Gorge appears organic. Homestead dwellings, associated remains of daily activities, and food garden terraces configured the households. The terraced gardens appear to have formed part of the households irrespective of the regional origins of members of the household, or the life cycle of the household. I use the entrenchment of the terraced gardens in Komati Gorge households to reflect on the negotiations between a range of factors that shaped Bokoni, including ideologies, soil conditions and routine activities.

7. A PHYTOLITH ANALYSIS OF BOKONI SOILS
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In spite of the extensive agricultural terracing relatively little is known about the agricultural practices in Bokoni. A few researchers suggested that the agricultural terracing was the result of the introduction of new non-indigenous crops, for example maize. This research used phytolith analysis to test this hypothesis. An analysis of the phytoliths extracted from soil samples collected at two Bokoni sites, namely Komati Gorge (KG), and Buffleskloof Private Nature Reserve (BFK), provided evidence for crops cultivated at these homesteads. Evidence of phytoliths resembling those produced by finger millet were found at both sites. Phytoliths similar to those created by pearl millet was also found at BFK. No maize phytoliths were encountered, which suggested that maize was not cultivated in the sampled area and would thus not have been responsible for the introduction of the terracing.
In addition to the information on the crops that were cultivated at the site, the analysis of the phytoliths evidence also offered insight into the environmental conditions at the sites during the periods which they were used. The Ic and Iph values calculated for KG suggested that environmental conditions were shifting from mesic to xeric, while BFK Ic and Iph values indicated a warm, moist environment during site occupation.