



## Eastern Africa Workshop

*Multidisciplinary approaches to investigating the spread of peoples, plants and animals in Holocene Eastern Africa*

Thursday 26<sup>th</sup> October 2017

Max Planck Institute for the Science of Human History

Organised by Steve Goldstein and Maddy Bleasdale

Trajectories of food production in eastern Africa differ from models for the transition to farming and herding in other parts of the world. Mobile pastoralism developed in Africa before crop cultivation, and spread from the Sahara southward against the backdrop of dynamic climatic change during the Early to Mid Holocene. As herding and later farming economies spread into eastern Africa, they became enmeshed in a complex process of population dispersal, environmental modification, and technological transition. Although this process has fundamentally shaped the environmental, ethno-linguistic, and economic diversity of modern eastern and southern Africa, its dynamics remain poorly understood. This workshop aims to explore the ways in which new and innovative multidisciplinary approaches can reveal how specific opportunities and obstacles shaped the spread of peoples, plants, and animals in Holocene eastern Africa. By drawing together an international body of field archaeologists, geneticists and archaeological scientists, we will be able to review existing models, generate new ideas, and explore future avenues for research and collaboration.

**NB:** Talks will be 15 minutes with a 5 minute period for questions. Notably, there is a larger period for discussions in the afternoon. As an informal workshop, we encourage full participation in the question and discussion periods.

9.00-9.15 Nicole Boivin: Welcome and Aims

9.15-9.20 Questions

### **Session 1: The bigger picture**

9.20-9.35 Tom Güldemann: Linguistic survey of Eastern Africa

9.35-9.40 Questions

9.40-9.55 Stephan Schiffels: Opportunities for ancient DNA to explore East African population history

9.55-10.00 Questions



10.00- 10.15 Robert Power: The role of eastern Africa in the diffusion of Asian crops in Africa

10.15-10.20 Questions

10.20-10.35 Patrick Roberts: Isotopic possibilities in eastern Africa

10.35-10.40 Questions

**10.40-11.00 Coffee Break**

## **Session 2: Kenya**

11.00-11.15 Maddy Bleasdale: Investigating the origins of dairying in eastern Africa

11.15-11.20 Questions

11:20-11.35 Anneke Janzen: Using stable isotope analysis to explore ancient herder-wildlife interactions

11.35-11.40 Questions

**11.40- 13.00 Discussion**

- What are the key debates relating to population dispersals during the Holocene in eastern Africa? (directions/pathways)
- What can we say about regional environments in eastern Africa and how might these have shaped population movements? (Coastal vs inland; forested areas vs savannah)
- What are the strengths/weaknesses of the palaeoecological information in specific regions? How might we improve this? Where could we target?
- What significance did “disease barriers” play in the delay of pastoralism in different areas of eastern Africa and Southern Africa?
- How can linguistic data strengthen our interpretations of past population migrations and interactions? How can we combine this with archaeological and genetic results?
- How might isotope studies aid our understanding of animal management strategies over time? Can we build up more comprehensive dietary baselines?
- What challenges are there for strontium mapping? How can we use isoscapes?
- What are the key challenges for aDNA analysis? How can we address these issues?
- How can we test linguistic and genetic models?
- How could the proteomic analysis of calculus help provide more insights into herding economies and dairying?

**13.00-14.30 Catered lunch at the Institute**



## Session 3: Coastal regions

14.30- 14.45 Alison Crowther: Archaeobotany in East Africa: progress, problems and potential.

14.45-14.50 Questions

## Session 4: South-eastern Africa and Southern Africa

14.50-15.05 Steve Goldstein: New perspectives on the spread of food-production into south-eastern Africa

15.05-15.10 Questions

15.10-15.25 Maggie Katongo: Iron Age Archaeology in Zambia

15.25-15.30 Questions

15.30-15.45 Shadreck *Chirikure*: People, animals and plants in Holocene Southern Africa: thinking ahead

*15.45- 15.50 Questions*

## 15.50-16.20 Coffee Break

## 16.20-18.00 Discussion

- What challenges are there for investigating the diffusion of Asian crops?
- How might we identify specialised pastoralism vs. broad spectrum farming?
- What methods and approaches can we use to trace the anthropogenic impact of food producers?
- How can we integrate scientific methods into current and future archaeological excavation strategies?
- What factors need to be taken into consideration to maximise preservation and how feasible are these in the field? (limiting UV exposure, keeping samples in cold storage)
- What is the best approach for sampling human remains for aDNA analyses in light of challenging preservation conditions? (pilot projects vs larger sample sets)
- What potential might existing museum collections have for scientific analyses? (aDNA, proteomics, isotopes, microremains)
- What new methods/approaches can be targeted to fill in major gaps?
- What key regions/sites may need further investigation?
- How can we generate opportunities for local collaborations and capacity building?

19.00 Dinner