Archaeology, Genetics and One Health: Tracking genetic diversity and zoonoses in ancient livestock and their implication for bio-cultural evolution and health

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Objectives:

1. Compare ancient and modern phylogeography and genetic diversity of indigenous cattle populations in Ethiopia
2. Evaluate the potential of recovering genetic material from ancient pathogens from archaeological material
3. Identify genes (and their variants) associated with resistance to pathogen infection in cattle, while also considering environmental adaptation and productivity [provided good aDNA preservation of samples].
4. Provide insight into the evolutionary history of host-pathogen interactions
5. Investigate the manufacturing processes of Ethiopian manuscripts through time (e.g. species and phenotypes preferred, trade, techniques)
6. Characterise parchment microbiome in relation to health risks for museum staff and visiting researchers