Arch/Phys Lunch Talk

Wednesday, May 20, 12:30pm
Soc Sci 1, 261

Anneke Janzen

PhD Candidate, UCSC Department of Anthropology

Exploring Early Pastoral Mobility in Kenya Through Stable Isotope Analysis

Specialized pastoralism emerged in Kenya around 3000 years ago and has adapted with changes in the social and ecological landscape to this day. Ethnographic research has documented significant changes in herding strategies among pastoral groups throughout colonial and post-colonial periods. Stable isotope analysis sheds light on how crucial mobility was in maintaining herds before the appearance of iron-using and –producing peoples in the region. Intra-tooth sequential sampling of livestock tooth enamel presents an isotopic record of diet during tooth formation, and can thus track movements across the landscape. These analyses were conducted on enamel of livestock teeth from several Savanna Pastoral Neolithic sites in the Central Rift Valley and neighboring plains of Kenya. Some sites are clearly the result of specialized pastoralist pursuits, and other sites indicate a mixed economy of pastoralism and foraging. While carbon stable isotope ratios do not indicate seasonal altitudinal mobility up to higher elevations, this does not preclude herding of livestock long distances at low elevations. $^{87}Sr/^{86}Sr$ ratios can reflect movement across geologically distinct soil complexes. Recent analysis of the strontium isotope composition of livestock tooth enamel provides another line of evidence for pastoral mobility.