Title: Mobility, Mortality, and the Middle Ages: Identification of Migrant Individuals in a 14th Century Black Death Cemetery Population

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Mobility and migration patterns of groups and individuals have long been a topic of interest to archaeologists, used for broad explanatory models of cultural change as well as illustrations of historical particularism. The 14th century was a tumultuous period of history in Britain, with severely erratic weather patterns, the Great Famine of 1315-1322, the Scottish Wars of Independence, and the Hundred Years’ War providing additional migration pressures to the ordinary economic issues drawing individuals to their capital under more stable conditions. East Smithfield Black Death Cemetery (Royal Mint) had a documented use period of only two years (AD 1348-1350), providing a precise historical context (~50 years) for data.

Adults (n=30) from the East Smithfield site were sampled for strontium and oxygen stable isotope analysis of tooth enamel. Five individuals were demonstrated to be statistical outliers through the combined strontium and oxygen isotope data. Potential origins for migrants ranged from London’s surrounding hinterlands to distant portions of northern and western Britain. Historic food sourcing practices for London were found to be an important factor for consideration in a broader than expected 87Sr/86Sr range reflected in a comparison of enamel samples from three London datasets. The pooled dataset demonstrated a high level of consistency between site data, divergent from the geologically-predicted range. We argue
that this supports the premise that isotope data in human populations must be approached as a complex interaction between behaviour and environment, and thus should be interpreted cautiously with the aid of alternate lines of evidence.