

UNEARTHING MORTALITY CRISES, UNDERSTANDING PAST SOCIETIES: THE BIOARCHAEOLOGY OF HISTORICAL MASS GRAVES

Olivier Dutour^{1,2}

¹Universite Paris Sciences Lettres, Ecole Pratique des Hautes Etudes, Paris, France;

²Universite Bordeaux-Montaigne, Archeosciences Bordeaux, UMR 6034, Bordeaux, France

Background: I began researching the archaeology and anthropology of mass graves in 1994 with the first excavation and interdisciplinary study of a plague burial site from the outbreak in Marseille in 1722. Since then, I have had the opportunity to study other sites associated with historical plague epidemics (both medieval and modern), as well as two mass graves resulting from the Napoleonic retreat from Russia in December 1812 (in Vilnius and Königsberg). The Battle of Mohacs (1526) resulted in mass graves, offering insights into large-scale mortality during this historical event.

Objective: This paper aims to evaluate the scientific contributions of excavating historical mass graves to the field of anthropology, focusing particularly on the reconstruction of biological, environmental and cultural responses to crisis situations.

Subjects and methods: This study takes a comparative and interdisciplinary approach, combining bioarchaeology, palaeogenetics and archival research. Selected case studies include historical mass graves related to plague epidemics and conflict, enabling cross-contextual analysis of mortality patterns and funerary practices.

Results: These investigations reveal distinct yet overlapping signatures of crisis. The plague mass graves provide insights into plague paleoepidemiology and the organisation of emergency burials in response to an infectious mortality crisis. The Napoleonic mass graves highlight the physiological impacts of starvation, cold exposure and infectious diseases during a period of military collapse. The Mohacs site offers evidence of perimortem trauma and battlefield burial management. Burial practices across all contexts reflect urgency, resource constraints and social attitudes towards the deceased.

Conclusions: The excavation of historical mass graves can significantly enhance our understanding of past mortality crises, as it allows us to integrate biological data with cultural and historical frameworks. The study of these contexts also raises ethical considerations and informs modern debates on mass fatality management. Mass graves created during historical epidemics and conflicts crises constitute exceptional biological archives for biological anthropology and bioarchaeology, which are crucial for better understanding past human societies.

Keywords: Mass graves; Bioarchaeology; Plague epidemics; Napoleonic wars; Paleomicrobiology.