**The Use of Trace Element Analysis to Understand Burial Environments from Nineteenth Century Newchapel, Staffordshire**

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In recent years, increasing numbers of studies have focused on the health and wellbeing of populations living during the English Industrial Revolution (1760-1860 C.E.). During this period pollution increased, and standards of living decreased for many as a result of social and income inequalities. Trace element analysis of human remains from contexts dating to this period could potentially shed further light on the effect of roles within industry on the body. Initially, this research aimed to establish how occupation affected long-term health of individuals (n=7) buried in the Newchapel (Staffordshire) cemetery, but the research questions were extended to consider trace element adsorption from soil and coffin furniture during diagenesis of the human remains. Chemical analysis did not reveal any information that could be used to explore occupational health in the nineteenth century as the trace element composition of human remains was incredibly variable throughout the site, and even within the same set of remains which, in some cases, could potentially be related to the presence of corroding metals from the coffin furniture. This research has ultimately furthered our understanding of the complex interactions that occur between the skeletal material, the soil, and the burial environment – this allows us to better establish which trace metals were incorporated into the skeletal material during life, contributing to our understanding of the local area in the late nineteenth century.

Please note, this presentation will contain images of human remains.

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