

## **Childhood Series**

### **Episode 2b – Conversation with Dr. Giuseppe Vercellotti and Jesse Goliath**

#### **The Osteological Paradox**

Dr. Vercellotti introduced a concept called the “Osteological Paradox” at its most basic level for our listeners. For those who are interested in learning more about this concept, please see Wood et al. (1992) for more information. In this article, the authors argue there are three areas of primary concern for bioarchaeologists moving forward: selective mortality, hidden heterogeneity of risk, and demographic nonstationarity. Selective mortality refers to the argument that skeletal death assemblages represent individuals who were more at risk of death at any given age than the individuals who survived to live past that age. Similarly, hidden heterogeneity of risk refers to the argument that populations consist of unknown mixtures of individuals who vary in their susceptibility to disease or mortality risk due to genetic, social, economic, or other differences between individuals or groups. Lastly, demographic nonstationarity refers to the argument that one cannot assume a given population has a consistent growth rate per time (e.g. fertility and mortality rates are equal at all points in time) or that it is closed to migration. Given these three main points, bioarchaeologists must critically evaluate whether their skeletal samples are representative of the living populations from which they are derived.

#### **References**

Wood, J. W., Milner, G. R., Harpending, H. C., Weiss, K. M., Cohen, M. N., Eisenberg, L. E., ... & Katzenberg, M. A. (1992). The osteological paradox: problems of inferring prehistoric health from skeletal samples [and comments and reply]. *Current anthropology*, 33(4), 343-370.