

Theoretical-Methodological Model to Study Vulnerability of Death in the Past from a Bioarchaeological Approach

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Abstract : Every human being is exposed to the risk of dying; wherein some of them are more susceptible than others depending on the cause. Therefore, the cause could be the hazard to die that a group or individual has, making this irreversible damage the condition of vulnerability. Risk is a dynamic concept; which means that it depends on the environmental, social, economic and political conditions. Thus vulnerability may only be evaluated in terms of relative parameters. This research is focusing specifically on building a model that evaluate the risk or propensity of death in past urban societies in connection with the everyday life of individuals, considering that death can be a consequence of two coexisting issues: hazard and the deterioration of the resistance to destruction. One of the most important discussions in bioarchaeology refers to health and life conditions in ancient groups; the researchers are looking for more flexible models that evaluate these topics. In that way, this research proposes a theoretical-methodological model that assess the vulnerability of death in past urban groups. This model pretends to be useful to evaluate the risk of death, considering their sociohistorical context, and their intrinsic biological features. This theoretical and methodological model, propose four areas to assess vulnerability. The first three areas use statistical methods or quantitative analysis. While the last and fourth area, which corresponds to the embodiment, is based on qualitative analysis. The four areas and their techniques proposed are a) Demographic dynamics. From the distribution of age at the time of death, the analysis of mortality will be performed using life tables. From here, four aspects may be inferred: population structure, fertility, mortality-survival, and productivity-migration, b) Frailty. Selective mortality and heterogeneity in frailty can be assessed through the relationship between characteristics and the age at death. There are two indicators used in contemporary populations to evaluate stress: height and linear enamel hypoplasias. Height estimates may account for the individual's nutrition and health history in specific groups; while enamel hypoplasias are an account of the individual's first years of life, c) Inequality. Space reflects various sectors of society, also in ancient cities. In general terms, the spatial analysis uses measures of association to show the relationship between frail variables and space, d) Embodiment. The story of everyone leaves some evidence on the body, even in the bones. That led us to think about the dynamic individual's relations in terms of time and space; consequently, the micro analysis of persons will assess vulnerability from the everyday life, where the symbolic meaning also plays a major role. In sum, using some Mesoamerica examples, as study cases, this research demonstrates that not only the intrinsic characteristics related to the age and sex of individuals are conducive to vulnerability, but also the social and historical context that determines their state of frailty before death. An attenuating factor for past groups is that some basic aspects -such as the role they played in everyday life- escape our comprehension, and are still under discussion.

Keywords : bioarchaeology, frailty, Mesoamerica, vulnerability

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