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Paleopathology of Violence in North America

The identification of violence and trauma in an archaeological context requires a nuanced and detailed analysis of both material culture and human remains. Bioarchaeology offers an extremely useful approach to the classification and interpretation of traumatic injuries that is often indicative of conflict and violence. Bioarchaeology accomplishes this by bridging the chasm between biology and the social and environmental dimensions of the populations being engaged.

Violence is a key feature in human interactions. It is maintained through linguistic, cultural, psychological, political, economic, and social forces. Throughout human history, periods of relative peace have been marred by eruptions of interpersonal or institutional violence. In the pre-Columbian past of the Americas, the challenge lies in trying to decipher the complexity, variability, and ambiguities in the total picture of the mortuary behavior and its relationship to abandonment, migration, conflict, resource scarcity, ethnic identity, settlement patterns, and other factors that could lead to violence and warfare.

This presentation draws largely from the author's research regarding the taphonomy of violence using case studies from the United States and México. Advances in understanding taphonomic processes have helped to illuminate subtle alterations on human skeletal remains and their meanings. The complexities surrounding the reconstruction of past lifeways and the social personas of archaeological skeletal material is often exasperated by the confusion that can arise in determining the cause of skeletal changes. This is particularly acute when researchers attempt to classify skeletal changes to specific categories such as trauma, "cannibalism" ritual mortuary preparation, carnivore damage, burning, and water, soil, and root damage. Recent advances in bioarchaeology, taphonomic, and forensic sciences have added a significant level of required precision to the evaluation of data used in drawing inferences regarding human behavior from skeletal material.

The study of violence has often been conducted with little or no consideration for the specific and often unique cultural meanings associated with it. Warfare and violence are not merely reactions to a set of external variables but rather are encoded with intricate cultural meaning. Some of the human skeletal assemblages discussed in this presentation are disarticulated, broken, chopped, burned, and often dismembered. Some scholars interpret these collections as representing cannibalism, witchcraft retribution, warfare, or ritualized dismemberment. Other assemblages demonstrate evidence of healed trauma, sharp force trauma, and gunshot wounds. This presentation will present my findings on interdisciplinary techniques and new methodologies in the analysis of human remains from archaeological contexts that allow for a more nuanced interpretation of the paleopathology of violence.

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Health and Disease in North America Before Columbus

Indigenous populations have lived in North America for at least 10,000 years and what we know of their diverse culture histories comes primarily from archaeological reconstructions and oral traditions. These avenues of study provide a rich data base on things such as where, when and how groups lived. But how well did people do in terms of longevity and health? What do we know about patterns of disease and premature death? Aspects of ancient biology and health can only be reconstructed from a close examination of human remains.

Data utilized in this presentation comes largely from the author's own studies of ancient health, as well as from the published literature, in the area of paleopathology (the study of ancient disease patterns). Information on health derived from ancient human remains are synthesized and presented with an eye towards revealing patterns and trends in how indigenous people within the continental U.S. were doing prior to contact with outsiders. In particular, a life history approach will be utilized that focuses on pregnancy and birth, childhood, the teen years, adulthood, and senescence.

Methods in paleopathology will be reviewed including current forensic techniques for providing sex, age, stature, health status, occupation, growth, sexual dimorphism, dental health, and cause of death. Pathologies that will be reviewed include nutritional anemias (porotic hyperostosis and cribra orbitalia), non-specific periosteal reactions (infectious disease), growth disruptions such as enamel hypoplasias and Harris Lines, osteoarthritis and trauma. Diseases such as tuberculosis, leprosy, trepanematosi, coccidiomycosis and others will also be reviewed.

Currently there is no accessible synthesis of disease in North American prior to contact, and this presentation brings together the best of the empirical studies on diet, disease, health and trauma for a number of precolonial populations within the boundaries of the United States. Case studies will be drawn upon when appropriate from the larger pool of published data on health.

An example follows: For the part of the presentation on "what was it like to be a child in ancient America?" I draw on examples of child growth and development from the Southwest (which illustrates the effects of agricultural dependence and marginality on child growth). In addition, I contrast the Southwest case for child health from the larger, denser communities of Cahokia and Dickson Mounds (near modern-day St. Louis). Finally, I draw on the long chronologies of child health published from analysis of the ancestral Chumash groups along the coast of California, where food was mostly plentiful, but where seasonal shortages were pronounced.

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