

# The Roots of Violence: The Lesson from the Southern Levant



Issa Sarie

The research, which was a joint project with Prof. Israel Hershkovitz of Tel Aviv University, aimed to analyze the range and nature of violence experienced by prehistoric and historic (urban) populations based on their skeletal remains recovered from various excavations conducted in the ruins of abandoned settlements littered throughout the Levantine landscape.

More than 1,200 cranial remains were recorded, representing data from the Natufian to the Islamic period. The nature of visible trauma on the cranial remains included: *wounds*: which usually appeared on the afflicted skulls as blunt trauma (mostly caused by a stone, wooden stick, hammer, etc.) and penetrating trauma (caused by sharp pointed instruments such as arrows and spears); *scalping*: caused by sharp instruments such as blades and scrapers leaving lines and grooves on the affected skulls; and *trephination* that appeared on the affected skulls as a hole with rough margins. *Ante-mortem trauma* (where there is clear evidence of a healing process) was differentiated from *peri-mortem trauma* (that caused death close to the time of the event, with little or no healing process).

The Levantine human remains stored at the Sackler School of Medicine at Tel Aviv University are of particular interest for this research since they comprise a unique, extended sequential biological record of Levantine populations extending from the Paleolithic to the end of the Islamic period. They provide a basis for understanding the emergence of village agriculture, the rise of urban cities and empires with sophisticated cultural narratives and mythologies.

The research results reveal that 25% of the cranial remains display traumatic lesions, a rate that did not fluctuate significantly over 6,000 years. Traumatic lesions in males appear more than in females' crania and more in mature individuals than in adolescents and children. Most injuries were located on the parietal or frontal bones throughout all periods, which sheds light on conflict situations of interpersonal violence related to different lifestyles. The Natufians (10,500-8,300 BC) were the first people to be transformed from foragers and hunters to a population reliant on a food-producing economy, and this led to the emergence of the first farming communities during the Pre-Pottery Neolithic period (ca. 8,300-ca. 5,500 BC). Although the primary results show similar rates of trauma (6% among the Natufians and 4.8% for Neolithic populations), their patterns of injury are different. Multiple traumas to the skull (blunt and small circle injuries) have been noticed mostly within Natufian populations; lethal knife wounds were recorded in skull injuries of Neolithic people, indicating the activities of a violent population.

The increase in population density due to the transformation from the agrarian society of the Chalcolithic period (4500- 3500 B.C) to the urban centers of the Bronze Age (3500-1200 BC), was accompanied by an escalation of social, economic and political complexity that may have caused social tension and violent conflicts. However, the fact that no significant differences in trauma rates were found over time implies that socio-economic shifts (from agrarian to urban populations) had little impact on the local populations' behavior.

Changes in the type of injuries, from blunt to sharp and projectile force trauma reflect weaponry development over time. The Levantine populations' considerable extent of trauma indicates that their bio-cultural-economic activities also involved the development of violent behavior. This adds to a further understanding of the motives and rationale of human aggression.

I would like to thank the Sloan Foundation whose support came through the Israeli-Palestinian Science Organization (IPSO), and the Kathleen S. Brooks Family Foundation whose support came through the Albright Institute, for their valuable financial assistance. Without their support, this research would not have been accomplished.

*Issa Sarie, Al-Quds University*

*2012-13 Kathleen S. Brooks Fellow*