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The Bio-cultural Impacts of State Expansionism: Provincial Roman Political Economy and Human Remains at Viminacium, Serbia

Topic of Research

This study was a preliminary investigation of the human skeletal assemblage recovered from archaeological excavations at the Imperial Roman site complex of Viminacium, Serbia. It seeks insight to social processes at work among the living population of this ancient provincial capital through osteological study of the remains from a massive necropolis dating primarily from the 1st through the 5th century AD. Using a combination of mortuary, forensic, biomedical and paleodemographic analyses, questions regarding the bio-cultural effects of changes in sociopolitical and economic organization and the physiological impacts of Roman militarism and imperial policy are being addressed. Analysis of the mortuary contexts will allow connection of physiological patterns in morphology, pathology, and trauma to particular socioeconomic and demographic aspects of the community of Viminacium. Diachronic trends in the ancient population will be investigated through recourse to temporally sensitive artifactual data found as grave inclusions.

Using standard methods of bioarchaeology, this project seeks evidence for an evolutionary impact of changes in social stratification on human biology. It will also contribute to the anthropological literature on imperialism, having important implications for the understanding of state expansionism in general, Roman political economy, urbanism in the ancient Mediterranean world, and the cultural impact of Imperial policy on ritual life. It is fairly unique in that few comprehensive bioarchaeological studies of provincial urban populations have been conducted outside of England, and the significance of those that have been performed is hampered by this lack of comparative data from elsewhere in the Empire. As a further consideration, the project is socially relevant in its aim to foster exchange in principles of cultural resource conservation with Serbian officials, administrators, and practicing archaeologists, thereby contributing to the economic saliency of this marginalized nation through development of its tourism and research industries.

Relevance and Contribution to Field

The initiation of the bioarchaeological aspect of the Viminacium Archaeological Project is important to anthropology as a field on several grounds. First is the political situation surrounding human remains in the United States. At the very time when several significant methodological breakthroughs in osteological analysis (namely molecular DNA studies and isotopic delineation of geographic origins) have enhanced the ability of archaeologists to make statements about the past, they find themselves legally obstructed from access to research material. The simple fact is that NAGPRA regulations have made a career in the study of the biology of the human past unrealistic

in this country. The only way that American scholars can remain competitive in the realm of scientific research on human bone, which may prove of immense practical forensic use in the near future, is to find situations abroad where the political environment does not hamper the study of human remains.

Secondly, this research is relevant in the insight it will provide to human microevolutionary processes. Patterns of disease, mortality, fertility and interpersonal violence are all known to be highly variable between cultures. The present research seeks the origins of and commonalities in such phenomena resulting from forms of sociopolitical structure and the effects of organizational change upon them. It will speak to the possible outcomes of globalizing trends in the modern world with regards to sociological and health patterns among local populations.

Methods

The priorities during the first season were establishment of a working relationship with Serbian administrators, creation of an analysis facility and collection repository for the remains, and collection of preliminary data from the necropolis site of Pirivoj, which lies just outside of the settlement of Viminacium. The season was extremely successful on all three counts. The Serbian director of the project, Dr. Miomir Korac, was extremely supportive of the research and provided access to all requested materials. These ranged from the human remains themselves to photos, sketches, and documentation of their excavation. He also kindly provided space within the on-site artifact processing facility for use as an osteological lab. In this area, stations were set up for analysis and photography that were adequate for the study at hand.

Data collection was structured by a set of analysis forms constructed specifically for the present study. A basic skeletal inventory form was created with individual sections covering dental, cranial, and postcranial material. Another devised form details the estimation of sex and age at death, referencing specific attributes that led to each conclusion. A third form lists the pathologies observed on each individual and provides room for a description. Data regarding the mortuary context of each individual was compiled on another form that should allow the association of certain biological patterns with particular socioeconomic aspects of the ancient population, as well as provide a chronological reference for many of the burials. Finally, a checklist was created to document the completion of each form and to provide space for listing photographs taken of each individual. All of these forms were completed for each set of remains analyzed.

Summary of Research Findings

An initial inventory of the human skeletal material collected from Pirivoj prior to the 2004 season was taken in order to ascertain the quantity of remains available for analysis and the quality of their preservation. A total of 161 graves were represented. Many of these were removed from the immediate vicinity of a large, solidly constructed mortuary building focused on a central interment that is the focus of excavations at Pirivoj, and the burials that surround it. Others come from salvage operations brought on by the construction of a nearby water pipeline, and this provides a useful spatial contrast in the data. Sixty-five of the burials were found to be more or less complete individuals in a good state of preservation, and these were selected as the target sample for the 2004

analysis. Sixty-three others were in good enough condition to warrant inclusion in the study at some future date. Thirty-three graves were composed of remains so fragmentary or damaged that they were not considered adequate for the present research.

Fifty-eight of the selected graves were analyzed during the 2004 season. They were found to compose the remains of 85 individuals. Males (n=33) thus far outnumber females (n=26), with 26 individuals being of unattributed sex as a result of their immaturity. The age demographics pan out as 50 adults compared with 35 subadults. The substantial representation of infants (n=9) is a good sign, revealing that the very young were being interred in the same location as the rest of the population—a phenomenon that is rare in many parts of the Roman world. The peak mortality occurs in the Middle Adult bracket, comprised of those 35-50 years of age (n=27). This is in accord with findings elsewhere that suggest the Imperial era life span for males was rather short. Only 5 individuals appear to have survived into their 50's.

The most common pathologies afflict the spine, with 25 individuals manifesting evidence of osteoarthritis. A number of others reflect further back trauma such as schmorl's nodes, enthesophytes, and kyphosis resulting from compressed vertebrae. These findings suggest that life at Viminacium was hard work for a significant part of the population. Substantial levels of interpersonal violence are indicated by perimortem compression fractures on the crania of two individuals, and multiple near-perimortem projectile impacts to the pelvic region of a third. Other interesting findings include a localized, symmetrical form of dental wear that may be the result of glass blowing as an occupation, and a healed lesion on the top of the skull of one individual that is the apparent result of cranial trepanation used as a medical treatment.

Future Research Agendas

Future research at Viminacium will firstly consist of expanding the sample size of human remains. Though much was accomplished this season, the number of individuals processed is not yet sufficient for paleodemographic analysis. The search will also continue for burials dating to an earlier period in order to adequately investigate questions of the evolutionary effect of changes in social stratification upon the population. Also on the agenda is the collection of skeletal samples for chemical analysis. Such studies will ideally provide insight to the proportion of the population born locally and that of more distant geographical origins, thereby addressing issues of human migration in the ancient world. This will be accompanied by morphological measurements of the remains that will complement the chemical study and supply data allowing the investigation of phenotypic variation within the Roman Empire.

Recommendations for the US Policy Community

Serbian sentiments towards America are surprisingly positive, more so than in many of the neighboring states. But many do not understand why it is so difficult to obtain permission to visit the U.S. There are many bright students that are very interested in studying at American universities. Unfortunately, funding opportunities appear to be very limited for graduate students coming from this part of the world, and the new Serbian government is really in no position to provide these at the present time. Creating some decent exchange programs would serve to stimulate academic research

and humanitarian philosophies in this country that has been cut off from the mainstream of Western theoretical developments in many disciplines of the social sciences. Heightened intellectual interaction would serve both countries extremely well.