

ranging from infancy to twelve years old, was collected from medieval Wharram Percy. Three-dimensional models were created using structured-light-scanning. Morphometric analysis revealed differences in the long bone growth patterns between children suffering from rickets and those without apparent skeletal markers of disease. This trend was most pronounced in the tibia and may reflect changes in functional loading to this bone.

**Collective burial or Neolithic crime scene?** Sofija STEFANOVIĆ, Natasa SARKIĆ & Sasa ZIVANOVIĆ

During the archaeological research in Vinča (Serbia) in 1931, a grave that belonged to the Neolithic Starčevo culture was discovered. The grave of ten adults and one sub-adult, mostly males, was characterised as "a tomb with dromos". Researchers who have subsequently worked with the material, although possessing different views on architectural features of the tomb, have not questioned that this is a grave with collective burial. However, a recent analysis of the original photo documentation, carried out by the BioSense Institute, provided a completely different interpretation of the findings. The three individuals are determined to be buried on their chest, face to the ground, which does not fit with usual burial practice in this culture. In another three cases the head was completely separated from the body and in the case of one individual both femurs were bent in position, which could be only possible if his back was broken.

Very little skeletal material was preserved from this necropolis. However, by combining the analysis of the existing material and photographs, it was determined that at least eight of the individuals had ante-mortem traumas on the cranial and postcranial skeleton and there were at least three cases of decapitation. Radiocarbon dating confirmed that the burials of these individuals were not simultaneous (5700-5500 BC).

The goal of the current work is to illustrate how a forensic approach, even through photographic documentation, can provide a wealth of new information and even enable the discovery of a prehistoric crime scene.

**Crossing the Threshold of Modern Life. Comparing Disease Patterns Between two Documented Cemetery Series from the City of Mérida, Yucatan, Mexico.** Vera TIESLER, Julio CHI KEB & Allan ORTEGA

This study compares two cemetery series together with their civil records from the city of Yucatan, which spotlight changes in lifestyle, life expectancy and health during the 20th century. To this end, we scored health indications in a skeletal series from the Central Cemetery of Mérida, Yucatán (N=104; collected during the beginning of last century), and a recent cemetery population from the Xoclán Cemetery of Mérida, collected between 2003 and 2016 (N=194). The latter materializes living conditions towards and during the turn of the 21st century. The records under study include basic life and socioeconomic information, obtained from the civil records, along with skeletal data of age-at death, sex, benign tumors, non-specific stress markers, arthritis and osteopenia. Our results, once age-corrected, indicate a rise in almost all analyzed indications towards the turn of the present century, which we will discuss in terms of pharmaceutical advances, public sanitation and longevity, changes in lifestyle and nutrition. We conclude that the documented shifts went along with health costs specifically for the local fringe populations of urban Yucatecans.

**Developmental Variations and the Andean Past: the Cultural and Demographic Implications of C2-C3 Block Vertebrae.** Anne R. TITELBAUM

Since the publication of Verano's "Advances in the Paleopathology of Andean South America," Andean paleopathology has continued to flourish as a dynamic and multidisciplinary field. One area of inquiry that has lagged behind however, concerns developmental variations of the skeleton. While variations are frequently observed among prehistoric Andean remains, relatively few studies have focused on them. And when variants are described, they tend to

either be presented as an anomalous case study or briefly mentioned as an incidental finding. This dichotomy in presentation is understandable since it is challenging to understand the relevance of the anomaly itself. For example, what caused the variation? Does it represent the normal range of anatomical variation, is it an isolated anomaly, or is it part of a syndrome or systemic disorder? Did it affect the quality of life of the individual, or was it silent in its manifestation? In spite of the challenges, developmental anomalies are interesting in their own right, and they hold potential for understanding cultural and demographic factors. Not only do they offer insight into prehistoric behavior, data on variations may provide another avenue for understanding population trends, such as migration and gene flow. This presentation will explore the potential of investigating developmental anomalies in the Andes, by focusing on congenital block vertebrae. Most commonly occurring in the cervical spine, block vertebrae frequently involve the C2-C3 vertebrae. A comparison between regions and time periods will be drawn.

**Non-Masticatory Tooth Wear in an Early Bronze Age Population from Southern Poland.** Mark TOUSSAINT & Piotr WŁODARCZAK

Żerniki Górze is a multi-period site in southeastern Poland, which includes both Neolithic and Bronze Age burials from different cultural paradigms. Among these burials are 39 individuals from the Early Bronze Age "Mierzanowice Culture." Out of 17 individuals thus far investigated, four show clear signs of non-masticatory tooth wear. This includes wear in the form of grooves on canines, premolars, and one molar. The individuals are representative of both males (n = 3) and a female, but all are estimated to be young adults. Non-masticatory tooth wear, as an indicator of an embodied set of labor practices, can be informative about the activities and gender roles of a society. For this reason, it is important to establish whether there are demographic patterns as to the presence and location of such wear. This study represents a preliminary assessment of non-masticatory wear at Żerniki Górze. For comparison, two individuals with unusual occlusal wear from another Mierzanowice Culture site (Szarbia, Gmina Koniusza), roughly contemporaneous, will be included.

**Summer Has Lead Us Here: A Bibliographic Analysis of Recent Research Trends in South American Paleopathology.** J. Marla TOYNE, Melissa S. MURPHY & Haagen D. KLAUS

Over just the past two decades, research involving an increasing number of well-preserved human skeletal collections from South American archaeological sites has greatly advanced paleopathological knowledge and practice. This poster examines recent research trends in South American paleopathology since 1997 through a quantitative evaluation of content in a wide array of sources including journals, books, and chapters. Data show primary sources are bioanthropological (top venues including *The American Journal of Physical Anthropology*, *The International Journal of Paleopathology*, and *The International Journal of Osteoarchaeology*), but there are increasingly publications in more archaeological sources (*Journal of Archaeological Sciences* and *Latin American Antiquity*) demonstrating the broader impact of the bioarchaeological approach to reconstructions of health and disease in past populations. The few reports in biomedical venues focus especially on mummified remains. There is a continued trend for case studies of individuals and documentation of unique pathological conditions as well as an increase in population-based, multi-method, and multi-site analyses, but more synthetic treatments remain limited. Topics such as bone chemistry (nutrition and mobility) and molecular anthropology (identifying infectious diseases) have significantly increased, while more traditional paleopathological topics (oral pathology, non-specific skeletal indicators of stress) remain consistent. While paleopathology remains strongly descriptive, the influence of bioarchaeology has encouraged a more theoretically rich interpretation of conditions. It is timely that we evaluate current trends using these survey data to highlight significant advances as well as identify areas for continued exploration.