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Jeremy Wharry

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Wharry

Changing Skeletal Stress Following Social and Political Disruption at Karystos, Greece

Presenter: Jeremy Wharry
Faculty Mentor: Britney Kyle

Abstract: This study tests the hypothesis that disease prevalence increased at the Greek mother city of Karystos after colonies were established and cultural contact increased through time. To test this hypothesis, bony changes that result from disease, including cribra orbitalia, porotic hyperostosis, linear enamel hypoplasia (LEH), and periostitis were scored and recorded in 106 skeletons from Karystos, Greece. These bony changes are considered “non-specific” indicators of disease because they are caused by general physiological disruption, and not diagnostic of any specific diseases. The data revealed a nonspecific increase in skeletal stress through time. Specifically, prevalence of cribra orbitalia (19% to 41%; n=38; X2 p=0.15), porotic hyperostosis (16% to 33%; n=37; X2 p=0.21), LEH (67% to 82%; n=32; X2 p=0.31), and periostitis (33% to 41%; n=49; X2 p=0.58) increased from Classical/Hellenistic periods to the Roman period (with no change between the Classical and Hellenistic periods). Despite non-significant changes in skeletal stress through time, the consistent pattern of increased skeletal stress into the Early Roman period suggests there may have been a biologically significant difference in disease burden between these time periods. During the Early Roman period Euboean cities were revolting against the Athenian empire and Romans forced local people to pay tribute. This social and political changed may have caused the cities on Euboea (including Karystos) to lose some of their resources. With diminished resources, the people on the island of Euboea may have become more susceptible to disease. The impacts of small sample sizes and migration will also be discussed.