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Sean Field

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*Field*

## **Dietary Change Following Social Transition at Karystos, Greece**

Presenter: Sean Field

*Faculty Mentor: Britney Kyle*

**Abstract:** We test the null hypothesis of no change in diet, evidenced by oral health, at Karystos, Greece from the Classical to the Early Roman Period. To test this hypothesis, dental caries, abscesses, and premortem tooth loss were recorded in 106 skeletons. Sixty-four individuals had teeth for observation of dental caries, while only 60 had mandibles or maxillae to assess abscessing and premortem loss. Statistically significant differences (Kolmogorov-Smirnov) in age distributions between all samples made direct comparisons of prevalence unwise. Thus, odds ratios were calculated for variation in oral health through time, while controlling for age. Odds ratios indicate that oral health improved from the Classical to Hellenistic periods (7.46 higher risk of caries and 1.14 higher odds of abscessing in the Classical than the Hellenistic period), but declined into the Early Roman period (6.8 higher odds of dental caries, 5.5 higher odds of abscessing, and 4.77 times higher risk of premortem tooth loss in the Early Roman than the Hellenistic period). These results do not support the null hypothesis, but correlate well with the agricultural progression of Karystos. Karystos was primarily an agricultural village consisting of several dozen small farmsteads during the Classical period, at which time Karystos established colonies throughout the Mediterranean, possibly receiving tribute from these colonies. During the Roman period, Karystos transitioned to larger plantation farming, and became a major food supplier to Athens. This may have resulted in lower quality diet for the local populous. The impacts of social change on food quality will be discussed.