DIETARY ANALYSIS OF ARCHAEOLOGICAL HAIR SAMPLES FROM PERU

Rebecca Ann Bergfield

Dr. Robert Benfer, Thesis Supervisor

Abstract

This research determined whether diet is distinguishable from diagenesis through trace element analysis of hair samples from ancient inhabitants of Peru. Factor scores were associated with meat, vegetables and grains, salt, or diagenesis. Factor score means varied significantly by site, site by sex for the meat sources, and by vegetable and grain sources. Because the concentrations of trace elements with sex and age varied across pooled samples variation in elemental concentration in these samples cannot primarily result from diagenesis. Log (Ba/Sr) means varied significantly for location and for sex by location where marine resources were available either through trade or directly where there was strong marine component in their diets. Further confirmation of a nondiagenic source for the elements were their different patterns across the longitudinal length of the hair.