Stable Isotope Analysis and Ancient Diets: They Are What They Ate

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Stable Isotope Studies of Human Diets

Stable carbon, nitrogen, and oxygen isotope studies have become widely applied to studies of ancient subsistence patterns, providing complementary information to both palaeobotanical and other dietary indicators (Figure 2). Using small samples of bone, teeth, and/or hair for isotope analyses, the study of many old-school has often revealed diet differences based on season, sex, status, and other historical factors; local ecologies, seasonal variation, and climatic change. Presented here is an overview of sampling and analysis methods, examples of studies on maize in the New World, and the Old World, and the importance of outreach and suggestions for future research.

Isotopes Basics

Sample Preparation and Stable Isotope Analysis

Sample selection and preparation in the Laboratory for Archaeological Science at the University of South Florida. (Figure 13). Sample preparation and stable isotope analysis (Figure 14). Other stable isotope analysis (Figure 15).

Applications – Latin America

Applications – Old World

Other stable isotope studies (Figure 16). Other stable isotope studies (Figure 17).

Applications – North America

Other stable isotope studies (Figure 18). Other stable isotope studies (Figure 19).

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