Supplemental Materials, Text 4. Stable Isotopic Values

While the use of stable C and N isotopes to determine the presence of maize in the eastern central Plains is not a focus of this study, the δ13C values (Table 1) for the Schultz burials need mention. Rather than a high intake of maize, the values likely represent the consumption of bison or other grazers who consumed C4 vegetation. The reconstruction of past diets based on C and N isotope values is hindered by the fact that isotopic values provide only a broad picture of food consumption (Boyd et al 2008). Different resources have similar isotopic values, especially animals consuming C4 pathway vegetation that often mask the isotopic values of maize. For the Schultz samples, the dietary contribution from C4 resources, calculated from the δ13C and using the formula provided by Morton and Schwarcz (2004), range from 13.5% to 81.5%, and support an interpretation of a mixed diet of herbivores and plants (Kauffman 2013).

References

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