The Wishbone Site: An Early Paleoindian Waterfowl Cooking Feature in Western Utah

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Introduction

A 2015 survey on the Old River Bed delta, within the U.S. Air Force’s Utah Test and Training Range, yielded a fire feature eroding from the playa surface. Radiocarbon dating places its use at ca. 12,300 cal BP, making it the earliest open-air hearth feature found in the Great Basin. Within and immediately surrounding the feature, waterfowl bone fragments and flaked stone artifacts were observed.

Radiocarbon Dating

Three willow wood charcoal fragments from the feature were radiocarbon dated. These yielded statistically similar ages, with a pooled mean of $10,386 \pm 40$ $^{14}$C BP. The calibrated age range is 12,394-12,106 cal BP.

Site Structure and Preliminary Interpretation

In July 2016, a block excavation exposed the feature and surrounding area. Bone and flaked stone was found to cluster vertically and horizontally with the feature. The bones are almost exclusively waterfowl, including small (e.g., teal), medium (e.g., duck), and large (e.g., goose) genera. Bones from the feature fill are burned while those from outside it are not, consistent with the differential discard of food refuse. Gastrooliths (i.e., gizzard stones) and foot bones suggest whole-bird processing and/or cooking. Thin, simple flake tools are the most common tool type and may represent supporting technology for these activities.

Haskett Association

Three Haskett artifacts were found at the Wishbone site—one within the feature fill—demonstrating an early Western Stemmed affiliation. The site is situated on a portion of the Old River Bed delta already known for a rare Haskett record; one specimen from a site 500 m away is reported to possess elephant family protein residue (Duke 2015). The implication of Haskett tool use for megafaunal hunting provides a compelling contrast with the evidence for waterfowl consumption.

Tobacco

Of special importance are four burned tobacco (Nicotiana sp.) seeds recovered from the feature fill. These represent the oldest direct evidence for tobacco use, which is currently reported to be about 2300 years ago (Winter 2000). This finding suggests that people were aware of tobacco’s psychoactive value 10,000 years earlier.

Further Studies

Laboratory work is underway to refine our understanding of the Wishbone site. Geochemical sourcing of lithic artifacts, residue studies on tools, and species-level faunal analysis will clarify settlement and subsistence. Further work on the tobacco seeds includes identifying their species, excluding any natural explanations for their presence, and considering their sociocultural importance.


MadSEN, David K., Olene K. Schmitt, and David Pogn. 2015. The Haskett/Archaic Occupation of the Old River Bed Delta. Utah State University, Salt Lake City.