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Living High in the Sky: Modelling Prehistoric High Altitude Camps in the Great Basin

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Abstract

Historically, high altitude camps were not given careful attention by archaeologists due to what was considered an extreme and barren landscape. This poster examines the material culture of Native Americans that were utilizing these high alpine environments through archaeological evidence and ethnographic information along with their change through time from the Middle Archaic (5,000-1,000 B.C.) to the Late Archaic period (1,000 B.C. to A.D. 500.) in the Great Basin. Along with using the Lewis Binford hunter-gatherer database models which can aid in environmental variables such as the potential of plant biomass productivity and makes ethnographically informed estimates of resource strategies for different elevations from known hunter-gathering groups. This can give us insight into what types of subsistence patterns a group might have been utilizing in this region.

Living High in the Sky

Julie Julison, Pei-Lin Yu, and Mark Plew

Research Question

In many of the low elevation areas in the Great Basin between the **Middle Archaic** (5,000-1,000 B.C.) and the **Late Archaic** period (1,000 B.C. to A.D. 500.) there were significant climatic changes that occurred which shifted food procurement strategies from hunting to plant intensification. This report re-examines prior archaeological data to determine if the same subsistence strategies extend to high altitude environments during the same time periods (Figure 1).



Figure 1. Map of Archaeological High Altitude Sites in the Great Basin.

Background

Some high altitude locations have distinct features and diagnostic projectile points that suggest a Middle Archaic time period, along with a Late Archaic component which includes dwellings and a much broader diverse artifact assemblage.

By looking at faunal remains and plant materials in food contexts we can suggest what people were eating.

Methods

Binford database, created by Lewis Binford and A. L. Johnson, designed to assist in calculating predictions about various conditions and subsistence strategies (Binford, 2001; Binford and Johnson, 2014; Johnson, In Press).

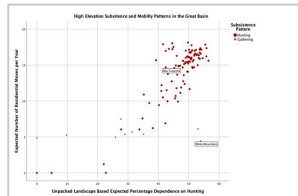


Figure 2. Expected percentage on hunting subsistence strategies with the number of residential moves per year.

In locations over 6,000 feet there is a positive correlation with a hunting strategy and frequency of moves by groups per year.

In low elevations there is a negative correlation between the percentage of hunting subsistence with the number of moves per year.

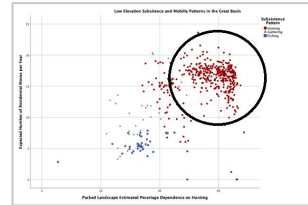


Figure 3. Expected percentage on hunting subsistence strategies with number of residential moves per year.

By looking at the total identified animal bones (n=1,780) for the Middle Archaic and (n=3,476) in the Late Archaic from the White Mountain sites, though the amounts are different, the overall percentages are very similar (Figures 4 and 5). For instance, the yellow bellied marmot is (n = 1351) or 76% in Middle Archaic previllage sites and (n = 2,822) or 81% of the total in the Late Archaic village sites (Figure 6).

Discussion

This poster's purpose was to re-examine faunal evidence from high altitude sites to possibly determine if other subsistence strategies were being utilized. The archaeological evidence seems to suggest that in higher elevations that the focus is predominately on hunting, even though groundstone was located in the village sites in the Late Archaic period.

Also, there was no macro or micro evidence that demonstrated that large amounts of plant materials were being processed.

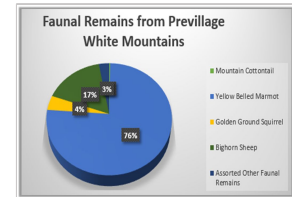


Figure 4. Faunal analysis of Middle Archaic previllage site.

Yellow belly marmot has the highest percentage of identified bones in both Middle and Late Archaic periods.

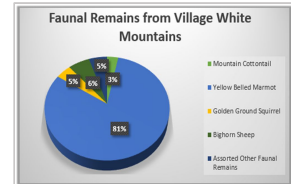


Figure 5. Faunal analysis of Late Archaic village site.



Figure 6. Yellow bellied marmot

References

Please see attachment