

Paleoindian Occupations at Pluvial Lake Tonopah & Mud Lake, Southcentral Nevada.

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Abstract:

The origins and ages of stone-tool technologies used by early humans in the Great Basin are poorly known. Supposedly earliest are "fluted" points, but their relationship to other fluted projectile points from the rest of the continent is uncertain. They may be the same age or perhaps younger. The best way to determine their affinities is by morphometric analysis-the study of size and shape similarities. In addition to morphometric studies, determining the source areas of stone used to produce the points will better ascertain early human mobility and range size in the Great Basin's Late Pleistocene.

Introduction:

Paleoindian hunter-gatherers first entered the Great Basin ca. 11,500 years before present (BP) (Beck and Jones 1997; Grayson 1993). However, the lithic technologies associated with them remain poorly studied, specifically in regards to the temporal age of fluted points (Beck et al. 2004). Fluted points have been recovered all across the Great Basin; however, it may not be valid to classify fluted points into the same categories used in other geographical regions if they are only superficially similar. Another uncertainty is about whether regional/environmental factors impact the toolkits and technology of the earliest hunter-gatherers in the Great Basin. My research project will analyze Gary Noyes' private collection of fluted points recovered mostly from the Tonopah region of Nevada, in search of measurable factors that may be correlated with spatial provenance.

Research Objectives:

The proposed research project will be carried out in both field and laboratory settings and will achieve the following research objectives:

- To accurately record, with aid of GPS, the locations of Great Basin fluted points in the Tonopah region, Nevada;
- To further aid in the classification of Great Basin fluted points as classifiable into the same types as in other regions, or a potential variant of both;
- To determine how much morphometric/regional variation there is among fluted points within the Great Basin;
- To better define patterns of mobility among Paleoindian hunter-gatherers in the Tonopah region of Nevada;
- To add to the temporal knowledge of fluted points in the Great Basin;
- To generate a cultural model for future archaeological research in the area.

Research Methods/Plans:

The proposed research will focus on collecting morphometric data related to the fluted points within Gary Noyes' collection. Under the direction of Gary Haynes, Ph.D.,

University of Nevada, Reno (UNR), I will conduct a morphometric analysis on Gary Noyes' fluted point collection. Attributes and corresponding measurements will be obtained by hand, with the aid of digital calipers, hand lenses, and/or other instruments as needed; data to be collected include size and shape metrics, plus specialized measurements of flaking patterns, flaking dimensions, and other variables. The results of this part of the study will be compared to similar analyses of fluted points from other parts of North America, to ascertain possible similarities in shape, size, and technological trajectories. The data will also be compared to measurements from other Great Basin fluted points.

Lastly, the project will spatially plot each fluted point in its original geographical context with the aid of geographical information system (GIS), Maptech Terrain Navigator Pro software, and the owner's personal notes. These spatial data will further aid in the construction and further development of a potential archaeological model of the region that will provide future archaeologists the opportunity to locate Paleoindian archaeological sites in and around the region.

Research Timetable:

May 2007 - September 2007:

- Record morphometric data on fluted points in the collection and perform statistical analysis;
- Fieldwork in Tonopah collecting waypoints and geographical information for spatial distribution model;

October 2007 - November 2007:

- Input data into GIS software and create spatial distribution model of the area;
- Compare morphometric data to other fluted point data;
- Present initial findings to BLM, UNR Anthropology Department, and Gary Noyes;

December 2007:

- Finish data analysis;
- Prepare final report, and disseminate results to academic and public communities.

Dissemination of Results:

These results will be presented to the Nevada Archaeological Association's annual conference, in addition to being presented to the Bureau of Land Management (BLM), and the Nevada State Museum. Additionally, results will be incorporated into a peer reviewed manuscript which may be published.

Qualifications:

I am currently a third year anthropology major with a 3.42 cumulative GPA (3.46 in anthropology). I began working in the prehistoric archaeology lab as a sophomore, after the completion of my field school in 2005. My time spent working in the lab has greatly contributed to my understanding of lithic artifact analysis and the archaeology of the Great Basin. This position, with the assistance of Dr. Gary Haynes and the support of two graduate students, have greatly encouraged me and prompted me to perform this research, which will undoubtedly contribute significantly to our understanding of the prehistory of the Great Basin.

References:

Beck, C., and G.T. Jones (1997). The Terminal Pleistocene/Early Holocene Archaeology of the Great Basin. *Journal of World Prehistory* 11(2):161-236.

Beck, C., George T. Jones, Dennis L. Jenkins, Craig E. Skinner, and Jennifer J. Thatcher (2004). Fluted or Basally-Thinned? Re-Examination of a Lanceolate Point from the Connely Caves in the Fort Rock Basin. In Dennis L. Jenkins, Thomas J. Connolly and C. Melvin Aikens (Eds.), *In Early and Middle Holocene Archaeology of the Northern Great Basin* (pp. 281-294). Eugene, OR: University of Oregon Press.

Grayson, D.K. (1993). *The Desert's Past: A Natural Prehistory of the Great Basin*. Smithsonian Institution Press, Washington D.C.

Budget:

	UNR General Award
	\$1,400.00
BUDGET CATEGORY	
1) Equipment	
Mitutoyo (0-6" (150mm) Digital Calipers	\$89.95
Garmin 76CSx GPS	\$449.95
Maptech Terrain Navigator Pro (NV Topo. Map Series)	\$269.99
MiniTab 14 Student Edition	\$69.95
2) Travel	
Tonopah Fieldwork	\$300.00
Nevada Archaeological Association (NAA) conference (Ely)	\$200.00
3) Promotion	
NAA conference registration	\$20.00
TOTAL	\$1,400.00