

Looking to the North: Results from the XRF Analysis of Pre-Archaic Projectile Points from Hanging Rock Shelter, Northwest Nevada

Geoffrey M. Smith, Stephen LaValley, and Craig Skinner

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Hanging Rock Shelter (HRS), located in northwest Nevada, was excavated by Thomas Layton in 1967–1968 (Layton 1970). Although undated, the recovery of over 40 stemmed and concave-base projectile points from the site's basal stratum led Layton to conclude that HRS was initially occupied between 10,000 and 12,000 CALYBP. This approximation is wholly consistent with both current estimates of the antiquity of stemmed and concave-base points in the Great Basin (Beck and Jones 1997) and the basal stratum from nearby Last Supper Cave, which was occupied as early as ~12,060 CALYBP and contained a similar number of pre-Archaic points (Smith 2008).

The stemmed and concave-base points from HRS represent one of the few sizeable assemblages of Pre-Archaic points from northwest Nevada not yet submitted for X-ray fluorescence source provenance analysis. As part of an ongoing effort to better understand pre-Archaic toolstone procurement patterns in that region, we submitted 31 obsidian stemmed points from HRS for geochemical characterization. Eleven known and one unknown geochemical types were identified. Sources of these obsidians are located in northwest Nevada, northeastern California, and south-central Oregon, and most of the points (90.3%; $n = 28$) are made on materials that originated within 78 km of HRS. Two geochemical types (Venator and Whitewater Draw) located more than 240 km distant are present but represented by isolated specimens (Table 1).

Our results are consistent with those derived from similar assemblages in the region including Last Supper Cave (Smith 2008), the Parman localities (Smith 2007), and the Black Rock Desert (Amick 1997; Camp 2009). Most of

Geoffrey M. Smith and Stephen LaValley, Department of Anthropology and Great Basin Paleoindian Research Unit, University of Nevada, Reno, 1664 No. Virginia Street/MS0096, Reno, NV 89557; emails: geoffreys@unr.edu sjlavalley@gmail.com

Craig Skinner, Northwest Research Obsidian Studies Laboratory, 1414 NW Polk, Corvallis, OR 97330; email: cskinner@obsidianlab.com

Table 1. Geochemical types represented in the sample of obsidian pre-Archaic projectile points from Hanging Rock Shelter.

Geochemical type	N	Percentage	Distance to nearest source (km)
Badger Creek, NV	1	3.2	27
Bordwell Springs/Pinto Peak/ Fox Mountain, NV	7	22.6	23
Buck Mountain, CA	2	6.5	70
Buffalo Hills, NV	1	3.2	78
Cowhead Lake, CA	2	6.5	64
Coyote Spring, NV	2	6.5	7
Hawks Valley, NV/OR	1	3.2	51
Massacre Lake/Guano Valley, NV/OR	11	35.5	17
Surveyor Spring, NV/OR	1	3.2	68
Venator, OR	1	3.2	244
Whitewater Ridge, OR	1	3.2	267
Unknown	1	3.2	Unknown
Total	31	100.0	

the material was procured locally—a finding that is not surprising given the abundance of high-quality obsidian in northwest Nevada. No sources of obsidian from south of the Black Rock Desert are represented in the HRS sample, which is consistent with the results of a recent synthesis of source provenance work in the area that suggests there was little long-distance north-south movement of toolstone in the western Great Basin (Smith 2010). As such, we do not think that Pre-Archaic groups in northwest Nevada had strong socio-economic ties to the western Great Basin and instead likely possessed a greater affinity with pre-Archaic populations to the north. This possibility is supported by marked similarities in toolstone procurement and mobility strategies (Smith 2011), perishable textile technologies (Connolly and Barker 2004), and rock-art styles (Woody 1996) in northwest Nevada and south-central Oregon.

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