A Landscape Analysis of Pronghorn Trap Features in Eastern Nevada

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Eastern Nevada contains the remains of many large wooden enclosures that were thought to have been used by prehistoric hunting groups to capture pronghorn. These enclosures, or corrals, display highly similar characteristics which reflect their builders' sophisticated understanding of pronghorn behavior. Researchers from Far Western Anthropological Research Group, Inc., conducted a detailed analysis of the construction techniques used to build four such enclosures along the Ruby Pipeline corridor near Montello.

Key Exploitable Traits of Pronghorn

- Social - Aggregate into herds
- Predatory- daily and seasonal movements
- Cannot maintain fast speeds
- Averse to vertical jumping - Pronghorn will prefer to seek an opening rather than jump over a barrier; they will, however, jump if panicked. Larger enclosures are therefore more successful. A barrier height as low as four feet can be sufficient to contain pronghorn that are not crowded.

<table>
<thead>
<tr>
<th>Trap</th>
<th>Extent (m2)</th>
<th>Circumference</th>
<th>Average Diameter</th>
<th>Acres</th>
<th>Elevations (m)</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
<th>Incorporated into Fence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>South-Fivemile (Locus 7)</td>
<td>1339</td>
<td>300</td>
<td>25</td>
<td>1744</td>
<td>1797</td>
<td>13</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North-Fivemile (Locus 2)</td>
<td>1556</td>
<td>379</td>
<td>28</td>
<td>1756</td>
<td>1767</td>
<td>11</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East-Fivemile (Locus 4)</td>
<td>1245</td>
<td>458</td>
<td>33</td>
<td>1744</td>
<td>1792</td>
<td>8</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historic (Locus 6)</td>
<td>95</td>
<td>21</td>
<td>5</td>
<td>1771</td>
<td>1778</td>
<td>7</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>1615</td>
<td>349</td>
<td>23</td>
<td>1733</td>
<td>1796</td>
<td>23</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In all, four prehistoric and one historic-era enclosures built of juniper wood were found within a 3 x 2 km area along Fivemile Draw. The four prehistoric enclosures were all AMS-dated to the Terminal Prehistoric Period (600-150 cal BP) while the historic-era enclosure likely postdates 1460 based on its construction materials (barbed wire fence, axe-cut posts).

Placement on the Landscape

The four traps are all placed on gentle alluvial slopes west of the draw. The prehistoric traps enclose between 23 and 33 acres and extend between approximately 340 to 440 meters in diameter. The back sides of three are incorporated into the juniper tree line and are partially hidden by the trees. All four open at their lowest elevation and their rear are at the uppermost elevation. Slight topographic rises obscure a portion of two of the traps/rows. This is consistent with the sizes and placements of other recorded traps in northeastern Nevada (e.g., Arkush 2014; Jensen 2007).

Recording Methods and Results

In order to capture the subtle landscape features that were incorporated into the enclosures, Olympus Aerial Surveys Inc. conducted aerial photography and mapping, documenting three of the enclosures using 4-foot contour intervals and orthophotography. The mapping confirmed that the features integrated slight topographic rises that served to obscure their construction which were not detectable on the topographic maps.

Digital terrain model of North-Fivemile Draw Trap (Locus 2), view to northwest. Vertical exaggeration 3x.

Implications for Future Studies

It is important to stress that these traps are large-scale features that may be easily overlooked during field surveys; after all, their builders designed them to blend into the landscape. The corral alignment may also be difficult to identify as the wood may be greatly eroded or trampled by livestock, and many of the known enclosures are associated with only a few artifacts. They may be more easily identified in aerial photographs (Murphy and Frampton 1986). However, traditional mapping techniques may mask important landscape elements used by these sophisticated hunters.

References Cited

Arkush, Brooke

Jensen, JILL
2007 Sexual Division of Labor and Group Effort Hunting: the Archaeology of Pronghorn Traps and Pile Accumulations in the Great Basin. Master's Thesis, Department of Anthropology, California State University, Sacramento.

Murphy, T. W., and F. P. Frampton