Migration Corridors, Ice Patches, and High Elevation Landscapes

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ABSTRACT

During the 2016 field season, the Park County Historic Preservation Commission (PCHPC) and GRSLE Archaeology conducted two inventories at elevations from 2700-3500m in NW Wyoming's Washakie Wilderness (Shoshone National Forest). In both cases the project examined relationships between surface archaeology and other aspects of the bio-physical environment. First, a segment of a primary elk migration route from the western Big Horn Basin into Yellowstone Park was inventoried for associated archaeological sites. Second, continuing work begun in 2015, we recorded over 19,000 pieces of chipped stone, many of which were associated with an ice-patch rich alpine setting. Results of both point to the need for greater consideration of transient environmental attributes (e.g., animal movement patterns and persistent snow locations) when considering site locational properties.

ICE PATCHES AND LANDSCAPE ARCHAEOLOGY

The discovery of rich and diverse organic artifacts and associated paleobotanical material from dusting ice patches has provided an unexpected rich addition to global (Reckin et al. 2011) and regional (Lee 2010; Lee 2012) archaeological records. Like the migration corridors, attributes of these features of alpine landscapes are not incorporated in our current site probability models (although variables such as solar insolation, which are part of our recent models, are likely relevant). Beginning in 2015 our team has been examining a series of 11 ice patches that Craig Lee had identified as being persistent and having locational characteristics amenable for the recovery of ancient perishable materials. Of particular note is in terms of organic artifacts are two wooden beams recovered in 2015 (Reckin, Kelly et al. 2016). In addition to the perishable materials, these ice patches are of note because of the very rich associated chipped stone record. Our surface inventory has documented nearly 20,000 pieces of chipped stone in only 174 ha of block survey (artifact density of 112 artifacts/ha). Radiocarbon dates range from a complete Alberta Point, to Late Paleoindian. Extensive use made of locally available pettified wood. Sites include some of the highest elevation stone circle habitation sites recorded in Wyoming (68R5757, 5375m and 68R6465, 5495m) as well as large open gaps with diverse stone tool assemblages. As with the migration corridors, ice patch associated archaeology matches the expectations of our general site probability model well. The co-occurrence of high organic preservation potential with high overall site probability seems to point to exceptionally high elevation archaeological record potential.

DOCUMENTATION AT HIGH ELEVATIONS

Numerous high elevation archaeological sites have been located at elevations as high as 3200m+ in the Greater Yellowstone Ecosystem (Shoshone National Forest). In both cases the project examined relationships between surface archaeology and other aspects of the bio-physical environment. First, a segment of a primary elk migration route from the western Big Horn Basin into Yellowstone Park was inventoried for associated archaeological sites. Second, continuing work begun in 2015, we recorded over 19,000 pieces of chipped stone, many of which were associated with an ice-patch rich alpine setting. Results of both point to the need for greater consideration of transient environmental attributes (e.g., animal movement patterns and persistent snow locations) when considering site locational properties.

REFERENCES


