Indications of Ephemeral Paleoindian Occupation in the Upper Greybull Watershed

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Colorado State University’s (CSU) Greybull River Sustainable Landscape Ecology (GRSLE) project has conducted four seasons of archaeological research in the Absaroka Mountains of northwest Wyoming. Despite the regional presence of well-known Paleoindian sites (Mummy Cave, Medicine Lodge Creek, Helen Lookingbill, Horner), surprisingly few artifacts associated with terminal Pleistocene-early Holocene occupations have been located in the upper Greybull project area. Three summers of field work near Dillon Mountain, Meadow Creek, and Venus Creek yielded just two Paleoindian projectile points, compared to five discovered in a single field season on Jack Creek and Francs Fork. The internal variation and seeming incongruity with established regional patterns demonstrate a need for further investigation of Paleoindian land use in the upper Greybull watershed. To distinguish local contexts in artifact distribution, topographic characteristics influencing human landscape, such as elevation, aspect, slope, viewshed, and resource availability are evaluated using GIS software. The results, when put in a regional context, will contribute to the broader understanding of Paleoindian exploitation of montane environments, particularly in the upper Greybull drainage basin.

Evidence for caching of frozen meat during winter

Utilization of caves and rock shelters possibly for seeds, bulbs, and possibly dry meat

Sophisticated methods of communal bison hunting, utilize natural land formations and construct retaining structures

An ‘Archaic-like’ hunting and gathering lifestyle, focus on mountain sheep, pronghorn, and mule deer; less on bison

Exotic raw material, often from distant sources

Tool stone is dominated by locally available raw material

Greater continuity in projectile point styles within the same time periods

Fewer diagnostic artifacts, non-Plains point styles, and less overall variability in site assemblages

A Mountain-Foothill / Plains Dichotomy?

Between approximately 10,000 and 8,000 years ago Frison (1992) proposes groups in the open plains and foothill-mountain ecosystems are engaging in two unique subsistence strategies. Determining Paleoindian mobility patterns and resource use in the GRSLE project area is complicated by the palimpsest of artifacts that have accumulated over the past 10,000 years. While artifacts representative of both the Mountain-Foothills tradition and the Plains lifeway are present, the scarcity seems to indicate an ephemeral Paleoindian presence on the landscape. More archaeological research in the upper Greybull watershed is needed before a definitive evaluation of Paleoindian occupation can be stated.

A significant number of Paleoindian sites are located in the vicinity of the GRSLE project area. Sites relevant to the Upper Greybull chronology (Burnett 2005) include:
1. Colby
2. Hanson
3. Horner
4. Mummy Cave
5. Medicine Lodge Creek
6. Osprey Beach
7. Lookingbill
8. Big Horn Canyon Caves, including Belfore Rock Cave, Mangus, and Sorenson
9. Laddie Creek
10. Southsider Cave
11. Wedding of the Waters Cave
12. Dead Indian Creek
13. Daugherty Cave
14. Pinto Spring Cave
15. Pagoda Creek
16. Horse Creek
17. Moss Creek
18. Boulder Ridge

Elevation in the GRSLE project area ranges from 2300 to over 4000 meters. The majority of projectile points were found between elevations of 2900 and 2900 meters. While partially a function of survey area, additional data may clarify temporal variations in resource acquisition and help to identify patterns in land use.

A chart of projectile points plotted by material type displays a uniform distribution within the Paleoindian period. However the scarcity of data renders any behavioral inference speculative.