

# *Blood Serum Testing of Ground Stone Artifacts*

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Recently, several accounts of archaeological investigations in Idaho have explained the presence of ground stone tools solely as evidence of plant processing activity. This is an unjustified limitation to the possible use of ground stone tools at any particular location in the absence of additional supporting data. While ground stone tools were undoubtedly used for plant processing activities, they were also used for a variety of different activities, including the preparation of food sources other than plants. In central Idaho, the Payette National Forest has sent several ground stone artifacts for blood serum tests, and has gotten some positive results. Of the six ground stone implements sent for analysis since 1993, four show remains of having been used to process animal products: a pestle from 10IH2423, found on the surface at an elevation of 7880', tested positive for Lagomorph spp. (rabbits, hares and pika), as did a pestle from 10AM110. A pestle from 10IH14 and a mano from 10IH1583 both tested positive for Cervidae spp. (deer). This evidence clearly indicates that these tools were not limited to the processing of plants.

Information from other sites in Idaho is not readily available, since ground stone artifacts have not been regularly submitted for blood serum testing; and a clearer understanding of the range of use for these tools will not be obtained until more of these artifacts are tested for blood serum residue and also for amino acid sequences and lipid and fatty acids, which would indicate use of both plants and animals. I would like to suggest that this type of testing be conducted on a more regular basis where possible, as it would add valuable information on Native American subsistence strategies in Idaho.

**Obsidian sourced from Big Southern Butte found in  
Adams County, Idaho  
USDA Payette National Forest**

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**In September of 2003, nine obsidian artifacts from site 10-AM-266, in west-central Idaho were geo-chemically typed by x-ray fluorescence by Richard E. Hughes, Ph.D. at the Geochemical Research Laboratory. The results identified eight artifacts from the Timber Butte source near Emmett, Idaho. The distance in a straight line, between the obsidian source and the site is about 80 miles. What we found for the first time was that the ninth obsidian artifact was sourced from Big Southern Butte on the Snake River Plains in eastern Idaho. The distance from Big Southern Butte to the site is approximately 270 miles. It is not known whether the occasional inhabitants of site 10-AM-266 procured the obsidian directly from these locations or indirectly through trade.**

**Analysis of obsidian is an indispensable archaeological technique for determining prehistoric transhumance on the landscape. To date, 252 samples from 72 archaeological loci have been sourced through x-ray fluorescence on the Payette National Forest (PNF). The artifact originating from Big Southern Butte is by far the furthest distance a piece of obsidian has been carried to the PNF. The threat of civil penalties under the Archaeological Resources Protection Act provided the funding for this obsidian analysis from 10-AM-266.**