Little John (KdVo-6) is a multi-component archaeological site with evidence of human occupation from the recent past to the late Pleistocene, c. 14 Kya. Located 12 km north of Beaver Creek and 2 km east of the international border, the Little John site sits atop a knoll above Chegli Nîh (Grayling Creek), the easternmost extension of the Tanana River drainage. This site contains a number of late Pleistocene sites assigned to the East Beringian Tradition and the Chindadn. Excavations since 2003 have occurred in conjunction with field schools of Yukon College (Easton) and University of Alaska Anchorage (Follett). The site lies on the western extremity of the thin piedmont Mirror Creek glacial advance, variably dated to MIS 6, c. 140 Kya or MIS 4, c. 70 Kya years, corresponding to the interior Yukon’s Reid glacial event. The late Wisconsin McCaulley glacial advance ended at McCaulley ridge, some 50 kilometers to the southeast, rapidly receding c. 16 Kya; by 13 Kya the region was ice-free to at least the White River, some 150 km SE. The varying depth of the loess deposits results from two distinct depositional environments, an eroding cliff side plateau to the southwest and a deep swale to the northeast separated by a higher knoll feature. The East lobe deposits are intersected by numerous paleosol strata containing faunal remains and cultural artifacts and features. Discontinuous permafrost and evidence of past cryoturbation present unique challenges to excavation and stratigraphic interpretation.

Calibrated AMS dates on bone, charcoal, and wood samples suggest five major times of early occupation of the site from 9.5 Kya to as early as 13.9 Kya (Fig. 9). Formed tools include Foliate Bipoints, Tear-Drop Chindadn Points, and medial sections of Collaterally Flaked Lanceolate Points. The lower West lobe loess stratum, which holds Chindadn technology remains undated due to a lack of organic preservation.

AMS Radiocarbon Dates

The deep loess deposits of the East Lobe have preserved bone and other organics in direct association with lithics. The varying depth of the loess deposits results from two distinct depositional environments, an eroding cliff side plateau to the southwest and a deep swale to the northeast separated by a higher knoll feature. The East lobe deposits are intersected by numerous paleosol strata containing faunal remains and cultural artifacts and features. Discontinuous permafrost and evidence of past cryoturbation present unique challenges to excavation and stratigraphic interpretation.

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Early Cultural Faunal Remains

Over 2,000 Pleistocene fauna fragments have been recovered from the early East Lobe strata, representing a broad spectrum subsistence strategy, but with a sustained focus on Bison until the early Holocene. The identifiable bison remains are exclusively of axial and appendicular elements, while caribou and moose remains include cranial elements as well.

Six bones bear a combination of fresh fractures, polished edges and sharp points that suggest they have been modified for use as tools, including a possible Beamer, Awl, and two chisel-like forms, perhaps for working hide or wood.

Faunal Taphonomy

Bourgeon has sorted most fauna through 2013 by Size (0-20 mm, then by 10 mm classes) and Quantity Extent of element; 96% is fragmented to less than 1/2 of the entire element and 87% of the material is smaller than 30 mm. The level of fragmentation could be explained by cultural processes.

Lithic Analysis

A variety of lithic materials are present and fashioned into a wide range of formed tools, utilized flakes, and debitage representing the entire prehistoric and historic cultural sequence of interior Yukon / Alaska. Over forty bifaces recovered in stratigraphic context will allow for a more precise characterization of the cultural sequence on the Yukon / Alaska borderlands.

Figure 22. Basaltic Lithic Groups Identified by pXRF Analysis

Eight distinct lithic groups are suggested by this analysis. The most visually consistent and geochemically distinct group was Andesite Group A (AG-A), a black fine-grained andesite exhibiting visible quartz phenocrysts. A number of formal tools associated with the early Chindadn complex are composed of this material. An increase in AG-A artifacts between the Late Pleistocene and late Holocene B2 horizon (n=17), suggests AG-A had acquired significance early on and the fluorescence of this material may be indicative of its local accessibility.

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Concluding Remarks

While clearly effected by complex periglacial processes the Little John site holds promise to refine our understanding of early human history of southeastern Beringia by applying a variety of standard and new analytical approaches to the data driven by the ArcomNorth motto – "Permafrost is No Excuse!"

We are happy to hear from colleagues and students wanting to participate in our work.

Contact

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