Abstracts

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The Late Prehistoric Percussion-Blade Industry of the Central Plains
by Philip J. Wilke, Gayle F. Carlson, and John D. Reynolds

A heretofore undescribed percussion-blade industry supplied blanks for end scrapers in the Central Plains tradition, a late prehistoric cultural expression on the North American Plains. Blanks were struck from single-direction, percussion-blade cores, which were primarily of nodular flint, although other material was used in some regions. Two caches of scrapers made on such blades, all largely unreduced through resharpening, are known from the excavation of house ruins in Nebraska and Kansas. The caches are described and the nature and significance of the blade industry they represent are discussed.

The Role of Fire in the Destruction of Upper Republican Phase Lodges in the Medicine Creek Valley, Nebraska
by Donna C. Roper

From the literature, it appears that many Plains Village period lodges had been burned, but just how prevalent house burning was and why houses burned are not well understood. A case study examines the role of fire in the destruction of Upper Republican phase houses in the Medicine Creek valley. Questions asked include how common fire really was and what correlations can be made between burning and circumstances under which a house burned. The analysis indicates that a large majority of houses were burned, but it could not establish any particular circumstances that caused them to burn. In some instances, burning probably was a deliberate act that served to rid a houselot of a dangerous nuisance.

The Mineralogical Characterization of Catlinite from Its Sole Provenance, Pipestone National Monument, Minnesota
by James Novotny Gundersen

Although there are subtle differences in the lithologic attributes of red (hematite-bearing) Plains pipestones, it is difficult to distinguish-megascopically-among the wide variety of these fine-grained argillites. X-ray powder diffraction analyses of these red pipestones-which include catlinites-indicate that these argillites are mainly composed of differing amounts of five minerals: diaspore, kaolinite, muscovite, pyrophyllite, and quartz. The pipestones from any given Plains provenance essentially contain only four of these five common minerals at that given locality. Plains pipestones can be characterized mineralogically by quantifying the apparent relative abundance of the three dominant minerals they contain. The ternary plots of these abundances, using symbols that qualitatively indicate the relative presence of the subordinate fourth mineral, provide a scheme by which the mineralogical characteristics of a given pipestone

variety can be recognized and generally resolved from other pipestone types found within the Plains as well as those from other provenances.

Application of this scheme is illustrated with the mineralogical analysis of several hundred samples of the many layers of pipestone that occur at Pipestone National Monument, the type-locality for the red Plains pipestone argillite defined as catlinite. Catlinites are found to be composed dominantly of pyrophyllite, diaspore, and muscovite. Such assemblages appear to be diagnostic for catlinites as no other pipestone type or provenance evaluated, to date, mimics their unique range of mineral assemblage abundances. Now catlinite objects found in archeological contexts can be verified as such, or perhaps recognized as another variety of similar-appearing pipestone argillite from a differing provenance.