

Frison's Chronology

The Grand Procession of Northwestern Plains Projectile Points

Part 2 – Plains Archaic Era

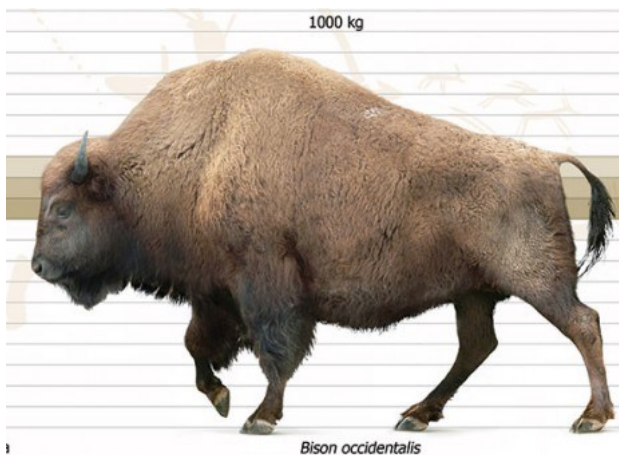
By Gene Gade

It had been at least 150 human generations since any Native American had seen a live mammoth, saber-tooth cat, dire wolf or the giant Pleistocene *Bison latifrons*. Glaciers persisted in a few high mountain peaks and valleys, but the massive continent-wide ice sheets had long-since disappeared. If there was a vestige memory of these things, it was embedded in the legends and myths told by elders and shamen around fires on long winter evenings.

The Early Archaic Period

The northern Great Plains were inexorably getting warmer and drier. True, there were probably wet years, perhaps even a series of them. Possibly the trend was so slow that an individual human didn't even notice it. However, if there had been time-lapse cameras focused on the landscape taking pictures every few years or periodic satellite photos of the kind we have now, it would have been clear that the grasslands were increasingly parched. Forest zones in the higher country were moving up because drought and related fires were killing trees and shrubs on foothills and new seedlings could only germinate and survive at higher elevations. Populations of bison and the humans who hunted them were diminishing. Another species of large buffalo (*Bison antiquus*) had gone extinct and *Bison occidentalis*, its somewhat smaller descendant, was also stressed and teetering on the brink of annihilation.

Archaeologists refer to this abnormally hot dry period by several names, including Mid-Holocene Warm Period or Alithermal. It reached its height between 7,000 and 5,000 years before present.

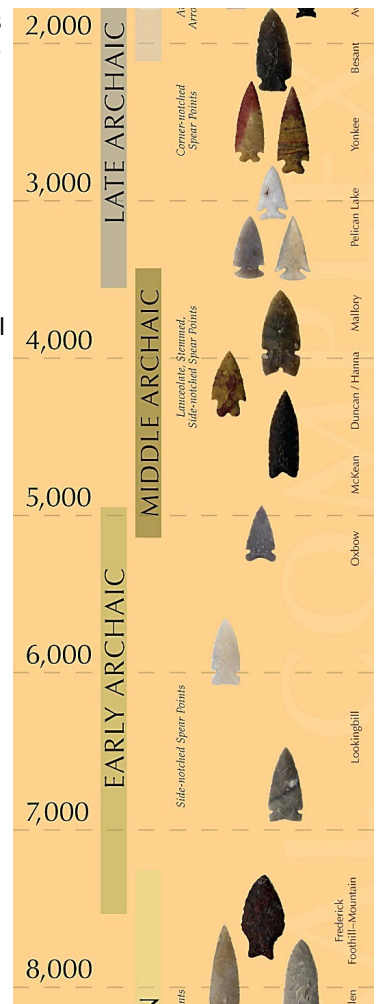


Bison occidentalis was a large species of buffalo that became extinct about 5,000 years ago at the end of the Early Archaic Period on the northern Great Plains. There is DNA-based research questioning whether *B. occidentalis* was actually a separate species, from modern bison. However, the clear trend was from massive ice-age bison toward smaller modern bison, probably as a result of climatic shift toward warmer, drier conditions on the Plains.

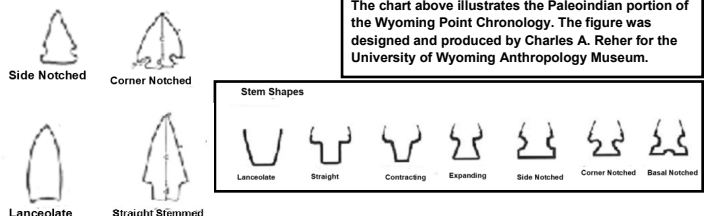
Such were conditions as the bison-hunting people of the high Plains transitioned from what George Frison and other anthropologists call the Paleoindian to the Archaic periods of their cultural history about 8,000 years ago. As the ecological zones moved slowly uphill in places like the Black Hills, Pryor Mountains, Absoraka and Big-horn Ranges, Native Americans moved with them. Many of the Early Archaic archaeological sites are in caves or rock shelters on the slopes or in canyons in these highlands. Frison discovered some of these sites in places like Paintrock and Tensleep canyons as a young man before he began his academic training and professional career.

More recently, archaeologists have found that pit houses were also commonly used by people of the Early Archaic Period. These pit houses were usually circular and featured fire pits, cache or storage pits. Apparently these dwellings were used on more open sites and in cold seasons. Gathered plant materials are more common than animal materials in these sites.

Archaeologists note a surprisingly abrupt change, from the longer, larger lanceolate or stemmed projectile points of the Paleoindian cultures, to side or corner-notched points in the Archaic Period sites.



The chart above illustrates the Paleoindian portion of the Wyoming Point Chronology. The figure was designed and produced by Charles A. Reher for the University of Wyoming Anthropology Museum.



Some of the best examples of Early-Archaic points come from the Hawken Site, about 40 miles WSW of the Vore Buffalo Jump where hunters drove *Bison occidentalis* into an arroyo and dispatched them with atlatls about 6,000 years ago. Use of Alberta's famous Head-Smashed-In Buffalo Jump was also begun in Early-Archaic times.

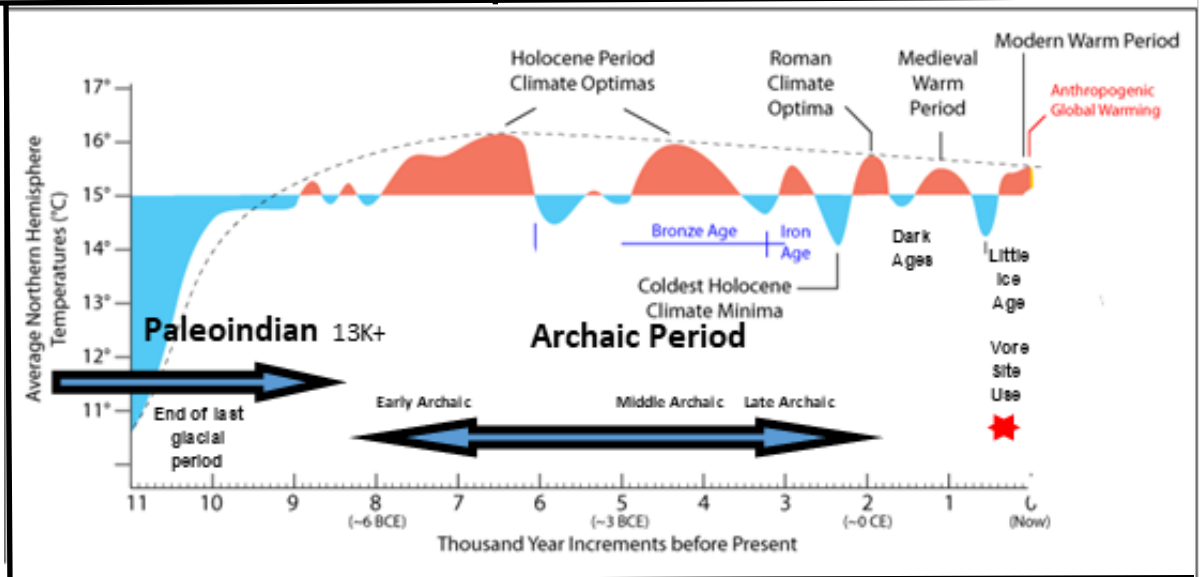


Drawings of Early-Archaic points from the Hawken Site and a *Bison occidentalis* skull from Hawken superimposed on a photo of the arroyo in northeast Wyoming where it was killed.

Middle Archaic Period

The climate cooled somewhat at the end of the Early-Archaic Period and then grew substantially warmer again in the Middle Archaic. Some of the most important sites were again discovered in northeast Wyoming during preparations for the Keyhole Dam on the Belle Fourche River and in sites a few miles west where coal strip mines and oil drill sites were about to happen. These sites referred to as the McKean Complex yielded points of several different styles. There is conjecture as to why points of this age are so varied, but no firm consensus. Stone circles of various diameters commonly called "tipi rings" began to appear during this period. *B. occidentalis* was extinct by this time, so hunters of this period were taking modern bison and other large and small mammals.

Climate has always been a critical factor effecting human cultures. To the first emigrants entering the Western Hemisphere 13,000-plus years ago during the last ice age, climate must have been an especially formidable factor. The continental glaciers had begun a slow retreat about 18,000 years ago, but after Native Americans had arrived on this continent, something triggered a rapid and



extreme reversal when temperatures fell abruptly and the glaciers advanced once more just as humans were arriving in North America. It was called the Younger Dryas event and it ended with rapid warming between ten and eleven thousand years ago as shown on the graph. The Archaic Period discussed in the above article featured periods of much higher average temperatures, the so-called Altithermal or Mid-Holocene Warm Period. As indicated, average temperatures fluctuated several times thereafter, but overall showed a slow lowering of temperatures. Warm periods corresponded with things like the Roman Empire and the Medieval Warm Period. Significantly cooler periods coincided with the Dark Ages and the Little Ice Age (Vore Site time). Temperatures are rising rapidly again due to human activity.

Late Archaic Period

The oldest Late-Archaic points are of the Pelican Lake type that are characterized by triangular corner-notched points. They are found from Manitoba down through the northern Plains and mountains. They apparently had winter camps in sheltered valleys near water and mobile summer camps on the prairie. They often conducted communal bison kills, one in the spring, and a second, larger one in autumn when cow buffalo were prime. Indians of this period used cliff jumps, corrals, and arroyo traps to harvest bison, but they also hunted deer, antelope, bears and a variety of small mammals, birds and fish as opportunities presented themselves. There were still climate fluctuations in the Late-Archaic, but they were less extreme than in previous periods.

There are several communal buffalo kills sites from Late-Archaic Period in the Powder River Basin of Wyoming and Montana. Some of these were later in time and include Yankee and Besant-style points. The Yankee and Besant peoples lived mainly in intermountain basins and foothill-mountain areas. The Spring Creek Cave site from the western slope of the Bighorn Mountains yielded coiled basketry similar to that of the Great Basin as well as bark cordage, sinew, hide, feathers and shell as well as corner-notched points and fragments of atlatls. Antler and wooden tools for digging Sego Lilies and other roots and tubers indicate that these people were gathering as well as hunting and may well have had relationships with Great Basin (or some have speculated, even Central American) affinities. Besant sites sometimes include ceramics indicating strong relationship with woodland people farther east.

A technology revolution occurred at the end of the Late-Archaic Period. Bows and arrows were introduced between 2,000 and 1,500 years ago and quickly replaced atlatls. That was the beginning of what is called the Late-Prehistoric Period. The Vore Buffalo Jump was used during the last 250 years or so of that period and will be discussed in the next *Over The Edge*.