

Slaughtering of buffalo not wasteful

After my column on conservation of bison herds by the native people, I was asked about the "buffalo jumps" that have been found on the prairies. To the uninformed, this would seem very wasteful. Sometimes as many as 250 bison were stampeded over a cliff or bluff. They were then slaughtered for their meat and hides.

In a recent issue of Equinox magazine, Heather Pringle told about the latest findings of archaeologists in Alberta. There at a "buffalo jump" called Head-Smashed-In, by the Piegan people, the scientists made some amazing discoveries.

In order to find out what happened after the animals were killed, archaeologist Jack Brink had his crew excavate a short distance from the slaughtering grounds. There on the grassy flats, where the butchering and processing would have taken place, the scientists began to dig. It was extremely hard work because for thousands of years Indian hunters had trampled and compacted bones and fire-broken rock into a dense pavement. Nearly 1,000 arrowheads and dart points were turned up.

The most revealing thing discovered was that, starting two or three thousand years ago, the animals long bones were crushed into splinters. This was done to render bone grease, by boiling the bones. The bone grease was stirred into a mixture of smashed dried meat and Saskatoon berries to make pemmican. This is how the meat was preserved.

Our Town

George
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The grease made the pemmican extremely stable. It was packed into ninety-pound bags. If left unopened, it could last for up to 20 years without refrigeration. Pemmican was a comparatively lightweight food which contained three to five times the nutritional value of fresh meat. It was made in this way by the Peigans and other members of the Blackfoot nation well into historic times.

Archaeologist Brian Reeves believes that there was probably a very large trade in pemmican between the plains people and the Eastern Woodland cultures. In exchange for pemmican, they could get a wide range of coveted ornaments made of conch shells, copper and mica from other native people.

Far from being wasteful as it first appears, the use of a "buffalo jump" was actually a very efficient way to harvest the herd of bison which had been so carefully conserved for that use. Another thing to consider is that 250 bison is only a small portion of the millions that were roaming the plains at that time.

A different excavation, at the foot of the

bluff at Head-Smashed-In, went down 30 feet into a bed of bison bones. Such a depth indicated that the "buffalo jump" was being used around 4000 B.C. To put it another way, this was 2,500 years before Moses led the Israelites out of Egypt and 3,000 years before Homer composed the Odyssey. The bottom has not yet been reached so no one knows how deep or ancient the bone beds of Head-Smashed-In really are.

The scientists also discovered that there was not one, but several "buffalo jumps" near Head-Smashed-In. Small piles of rocks laid out in long lines several miles long, led to different bluffs and cliffs. These alternate "kill sites" were probably used when the wind was blowing in the wrong direction. The "buffalo runners" could only fool the short-sighted animals if they could not detect the scent of men.

The small piles of rocks each held a brush tied with strips of leather, which would move in the wind. These were cleverly placed just within the bison's range of vision to help the buffalo runners direct the herd to the correct kill site. It was an ingenious system which allowed the Peigans and their ancestors to live in a fairly small area of the prairies without having to move long distances to get food.