

The Certain Bison Kill Site, Beckham County

Lee Bement

The Certain Site is a Late Archaic bison kill site located along the margins of the high plains in western Oklahoma. Late Archaic hunters drove bison up a box canyon tributary high in the Washita River drainage. Steep sandstone bedrock exposures at the nickpoints of the side gullies trapped the animals until hunters could dispatch them. Coring of the sediments along the canyon indicates the kill or series of kills took place in numerous tributary gullies for a distance of 500 meters from the canyon terminus. Primary skinning and butchering tasks occurred within the gully and were primarily directed at removing forelimbs, hump, tongue and brain. Secondary butchering occurred on the flat above the gullies and consisted of further dismemberment of articulated limb segments.

The Certain Site, 34BK46, was brought to the attention of the archeological community in 1970. Bison bone was noted eroding from the steep walls of a deep canyon on the Certain Farm northwest of Elk City. Upon close

examination, a broad-bladed dart point was discovered intermingled with bone and charcoal flecks in the wall of a side gully. Since its first discovery, the site has been monitored by archeologists and numerous bones have been collected as they eroded from the steep bank. In 1990, a bone sample was submitted for radiocarbon dating and yielded an age of 1400 ± 70 years BP (before present) or A.D. 500. This date places the bison kill at the juncture between the Late Archaic and Woodland periods. The dart point suggests that Late Archaic hunter-gatherers are responsible for the kill.

In the summer of 1992 archeologists from the Oklahoma Archeological Survey conducted a limited subsurface investigation at the site. Under the direction of Dr. Lee Bement, a field crew of Survey staff members, OU students and Oklahoma Anthropological Society volunteers proceeded to uncover a large bison bone bed and a processing area in two backhoe trenches.

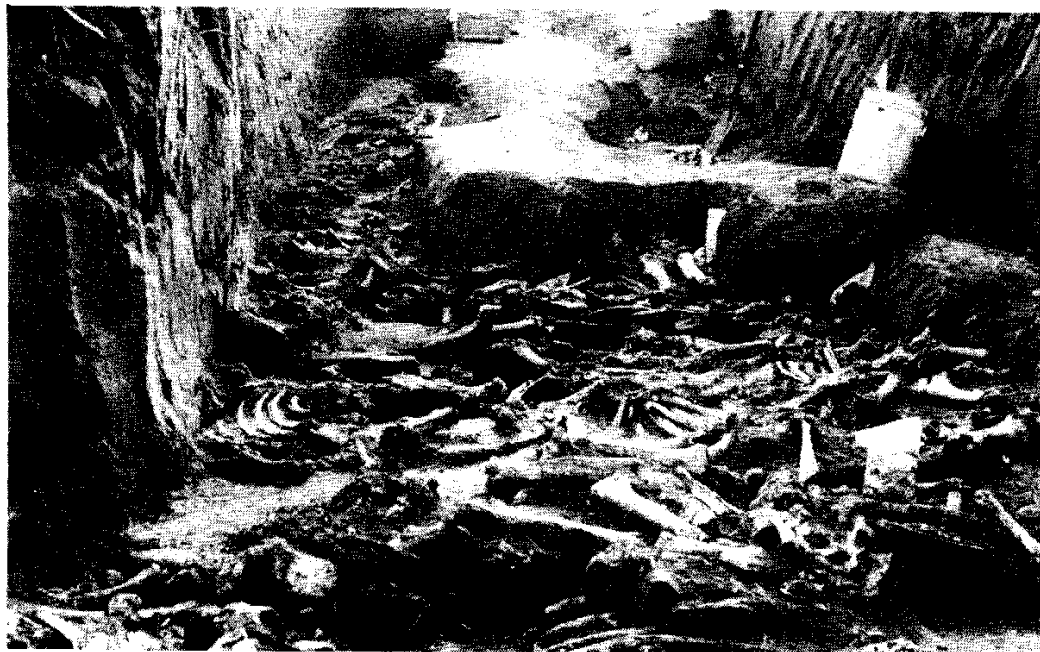


Figure 1. Bone bed uncovered in Trench A. At least 12 bison are represented in this concentration of bone. This bone bed is a result of the actual kill and initial butchering of the animals.

Trench A was approximately 3 meters wide by 7 meters long and 3 meters deep. Just over half of the trench bottom was cleaned to the bone bed by hand. The remaining area was not excavated to allow easy access into and out of the trench. We had anticipated finding isolated accumulations of bison bone representing individual butchering piles. Instead, what we found was a continuous river of bone that totally filled the excavated portion of the trench (Figure 1). Although we did not uncover any projectile points, several sharpening flakes from knives were found. The bone bed in Trench A is the actual kill site and is also the result of the initial skinning and butchering of the animals. An estimated 12 bison are represented in the bones uncovered in this trench.

Soil probing on either side of the trench revealed that the kill is located in a now-filled gully that is minimally 12 meters wide and at least 15 meters long. If our trench uncovered approximately 30% of the gully bottom, then there are at least 30 animals to be found in this gully alone. Additional probing downstream from Trench A identified at least four more gullies with bone deposits. While we do not know that these other gullies contain similar bone densities, we feel fairly confident that the Certain Site contains upwards of 100 animals representing either one very large kill or several smaller kills.



Figure 2. Bone accumulation in pit feature uncovered in Trench B. This is a secondary butchering locality near the kill.

Trench B was located 150 meters upstream from Trench A. Bone was observed eroding from the gully side and a small trench 3 meters by 2 meters by 2.5 meters was excavated. Hand excavation uncovered a single accumulation of bone in what appears to be a shallow pit 80 cm wide by 130 cm long (Figure 2). Burned sandstone and calcined bone fragments indicate the feature may have originally served as a cooking/roasting pit. The main material in the pit, however, consisted of the long bones from the front legs of at least 2 bison. Isolated hind leg elements, teeth, and vertebrae indicate that other butchered segments are also represented. No stone tools or projectile points were found in or adjacent to this feature. The bone accumulation is thought to result from the secondary butchering and processing of select cuts removed from the

kill/primary butchering localities in the gullies. We do not have a definite campsite, however, the secondary processing area may in fact be part of the camp.

Over 150 bones were removed and transported to Norman for analysis. Although the bone is in a fairly stable condition, root etching and the weight of 3 meters of dirt has taken their toll. The analysis of this material has only just begun and the preliminary results will be presented at the Fall Oklahoma Anthropological Society meeting in October. Additional work at the Certain Site is already in the planning stages for next summer. We hope to use the site as the University of Oklahoma Anthropology Department's field school.

In summary, the limited excavations at the Certain Site uncovered a major bison bone bed and processing area dating to at least 1400 years ago. The animals were herded into a box-canyon and trapped in the steep-sided gullies at the head of the canyon. Hunters ambushed the animals in the gully heads and performed primary skinning and butchering tasks there. Select segments were transported to a location adjacent to the gullies for further processing.

Acknowledgements

The work at the Certain Site was made possible by the donation of time, money, food, living quarters, and hospitality from the citizens of Elk City, the Oklahoma Anthropological Society, and the Bob Fleshman family. A special thanks is offered to:

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- Pucketts, Elk City
- Convenience Products, Touch 'n Foam® Fenton, MO

OAS members Karen Nowlin, Sherl Holesko, Ken Bloom, Pete Thurmond, Roy Patterson, and John Flick discovered the value of contortionistic abilities for bone bed excavation. Mr. Jones and his magical backhoe saved us many backbreaking hours of sand hurling just to reach the bone bed. Bob Fleshman and his family provided us

with a place to live, a place to fish, and a site to work on. In addition, the work at this site drew the attention of the news stations from Oklahoma City and Amarillo, CNN, Associated Press, the Elk City Daily News, and KTOK. Such widespread publicity enables us to reach out to a multitude of interested individuals worldwide and promotes the actions of OU and the citizens of Oklahoma. Heightened public awareness, interest and support increases our effectiveness to study and preserve Oklahoma's cultural heritage for Oklahomans.

STATE FAIR 1992

The Archeological Survey, in conjunction with the Oklahoma Historical Society, and the Oklahoma Anthropological Society sponsored a booth at the 1992 State Fair of Oklahoma in Oklahoma City. Funding for this event was provided by the National Park Service with matching funds from the Archeological Survey and Historical Society. The purpose of the booth was to promote an awareness of Oklahoma's archeological and historical resources.

Our booth was located in the Made in Oklahoma Building and was staffed by members of the three organizations from September 18 to October 4th. Managing a booth open for 10 to 12 hours a day for 17 days required considerable endurance. We greatly appreciate the efforts of Henry Benedict, Preston and Margaret George, Bob Harrison, Dave Morgan, Don, Jane, and Bill Menzie, Evelyn Novotny, L. M. Sullivan, Bob and Lyda Sweet, and Al and Del Zajic of the Oklahoma Anthropological Society; Susan Allen, Marshall Gettys, Melvena Heisch, and Marsha Weisieger of the Oklahoma Historical Society; and the staff of the Survey and students from the Department of Anthropology. Lisa Whitman, Survey Secretary, deserves special recognition for the

coordinating and the scheduling of 31 people over the 17 day period.

The theme for our efforts at the 1992 State Fair was "Archeology - Saving Oklahoma's Past: Our Children's Heritage". It also coincided with 1968-1993 being the 25th year that the Historical Society and the Archeological Survey have been working to preserve Oklahoma's past. A variety of active and passive means of promoting Oklahoma's cultural heritage were presented. The slide/tape program, "People Before Yesterday", was run throughout the fair. The Historic Preservation Office also had a panel display on their program. More active participation was promoted through use of a mano and metate to demonstrate prehistoric methods of grinding corn. This was a big hit with children passing through the building. A variety of free handouts were available including a poster (a water color done by Bill Thompson of the Anthropological Society), bumper stickers, bookmarks, and brochures on the Historical Society, the Anthropological Society, and the Archeological Survey.

It was somewhat difficult to determine how many people came by the booth. However, we handed out over 2500 Survey brochures and a like number of bumper stickers, and bookmarks. Thus, attendance was estimated to be around 2500-3000 people. Our booth as well as the poster received many positive comments. We also had the opportunity to talk with people from all regions of the state and from different ethnic origins about Oklahoma's cultural history.

The state fair booth marked the first time in some 12 years that the Archeological Survey has attempted a large scale effort to increase the public's awareness of archeological resources. Based on the successfulness of this year's program, we plan to expand our activities for another state fair in a couple of years.

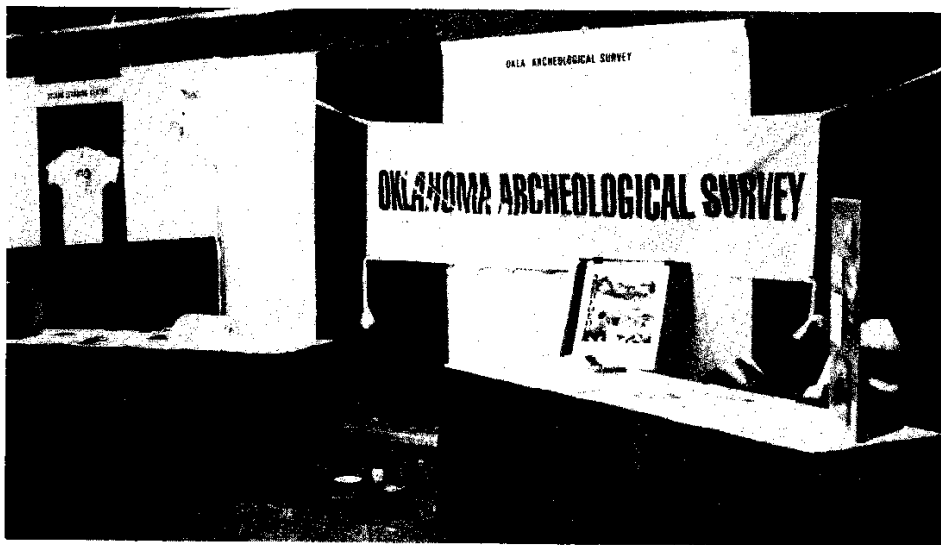


Figure 3. Booth at the 1992 State Fair of Oklahoma.