

Explore Nebraska Archeology

High Plains Archeology



Nebraska State Historical Society



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Nebraska State Historical Society
is to safeguard and interpret
Nebraska's past.

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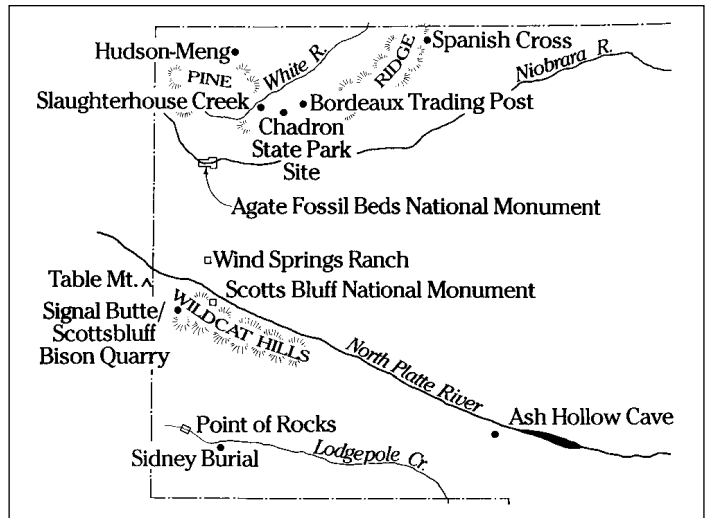
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On the cover: Native American rock art, Morrill County.



The Nebraska Panhandle is an area characterized by varied topography and climatic extremes lying within an upland region known as the High Plains. Western Nebraska is rich in archeological resources and the full range of cultural/temporal periods is represented in its archeological record.

High Plains Environment

The High Plains stretch from the boundary of South Dakota to the Rio Grande. The region is a remnant of a former plain formed by sediment-depositing streams as they flowed from the mountains eastward during the late Tertiary period more than one million years ago. The northwestern portion of the Panhandle is dominated topographically by the Pine Ridge, a rugged and heavily dissected northwest to southeast oriented escarpment, covering more than one thousand square miles. Sharply rolling to gently undulating tablelands are adjacent to the Ridge. Several areas of badlands occur, including Toadstool Park and portions of the Oglala National Grassland. South of the Pine Ridge lies an area dissected and traversed by the broad, deep North Platte River valley, the Niobrara

River and other smaller streams. Other important erosional remnants of the former plain are collectively referred to as the “Wildcat Ridge” and include prominent landforms such as Robidoux Pass, Signal Butte, and Scotts Bluff.

The Panhandle region is characterized by low precipitation (fifteen inches per year), unpredictable distribution of rainfall, and strong winds. Climate is classified as semiarid to sub-humid. Summers are usually warm and dry and winters cold and snowy. Vegetation consists of a mosaic of mixed grass and shortgrass prairie species. Timber is not abundant except along streams, valleys, and select escarpment areas like the Wildcat Hills and Pine Ridge.

Large grazing mammals in the region include the once-plentiful elk and buffalo, as well as deer and pronghorn. Prairie dogs, gophers, badgers, and other burrowing animals are common. Other wildlife inhabitants include grouse, duck, other waterfowl, coyote, fox, rabbit, raccoon, turtle, and fish.

Archeological Explorations

Archeological investigations in western Nebraska during the first half of the twentieth century were sporadic. Systematic excavations were undertaken during the early 1930s by the University of Nebraska Archeological Survey. Work included excavations at several rock shelters in Cheyenne and Morrill Counties. Along with the Smithsonian Bureau of Ethnology, the Archeological Survey also conducted extensive work at Signal Butte and the Scottsbluff Bison Quarry.

In 1933 an archeological survey of western Nebraska was undertaken by French archeologist E. B. Renaud from the University of Denver. Renaud and his team sampled an area that extended from Signal Butte to the west, north, and south of the North Platte River valley in Morrill

and Garden Counties to Barn Butte, southeast of Oshkosh. Renaud identified more than forty sites including stream valley locations, rock shelters, and butte-top sites.



Archeologists on top of Barn Butte, Garden County, 1933.

Work was intermittent during the 1940s and 1950s, but picked up in the 1960s with the passage of historic preservation laws. Cultural resource investigations in western Nebraska during the early 1970s included research at several sites by the Nebraska State Historical Society Highway Archeology Program in response to the proposed Interstate 80 construction. Point of Rocks survey was initiated by the NSHS to document and investigate cave and rock shelter sites near Potter in Cheyenne County. In 1972 an archeological reconnaissance survey was undertaken by the University of Nebraska–Lincoln and the Smithsonian Institution of select areas within the White River drainage and more than thirty archeological sites were discovered. The majority of sites were represented by small, stone-lined or filled hearths. Artifacts recovered from six of the sites indicate the surveyed drainages had been occupied from the Paleoindian period (10,000 years ago) to the protohistoric period (A.D. 1600–1700).

From 1973 to 1974 and again in 1981, Chadron State College conducted reconnaissance surveys within the Whitehead Creek and Hat Creek drainage in northern Sioux County and compiled an inventory of known archeological sites within select Nebraska National Forest properties in the northern Panhandle. More than seventy archeological sites were inventoried, as well as a number of isolated artifact finds. A variety of components including campsites with hearths, buffalo kills, stone circles, and lithic quarries were inventoried. Sites ranged in age from 10,000 years ago to within the past 150 years.

During the 1980s the University of Nebraska and the NSHS completed a cultural resources investigation within 1,400 acres of the Crow Butte Uranium Prospect near Crawford. Twenty-one newly recorded sites were identified, including eight Native American sites, twelve Euroamerican locations, and a site of uncertain cultural association. Components dating to the Paleoindian, Archaic, late prehistoric Native American, and nineteenth-century Euroamerican settlement were discovered.

In the 1990s the National Park Service, Midwest Archeological Center, conducted various cultural resource surveys and excavations at Agate Fossil Beds and Scotts Bluff National Monument. More than one hundred sites of various ages were recorded and examined, including stone quarries, campsites, bison kills, and pioneer settlements. During the 1990s the USDA Forest Service has been systematically inventorying archeological properties on its lands.

In conjunction with the State Historic Preservation Office, NSHS Archeology Division staff surveyed approximately 1,400 acres of the Wind Springs Ranch in extreme southern Sioux County during the summer of 1999. Seventy-eight new archeological sites were documented. The sites are diverse, both functionally



Archeological crew at Wind Springs Ranch, Sioux County, 1999.

and temporally, and span the Paleoindian period through protohistoric Native American occupation as well as including Euroamerican ranch features and historic wagon roads. The locality seems to have been most intensively occupied during the Middle and Late Archaic periods. Testing at several locations on the ranch has revealed intact cultural deposits on butte tops as well as within the stream valley.

Much of the cultural resources work in western Nebraska during the past twenty-five years has been the result of legislation mandating the documentation and protection of archeological sites affected by federally funded undertakings. Agencies including the Nebraska Game and Parks Commission, National Park Service, Federal Highway Administration, Interstate Commerce Commission, United States Air Force, Forest Service, Bureau of Land Management, Bureau of Reclamation, and the Energy Regulatory Council have contracted numerous cultural resources surveys. This work was done largely in response to proposed construction projects.

Big Game Hunters (12,000–9,000 years ago)

About 12,000–9,000 years ago the inhabitants of western Nebraska were groups of Paleoindian hunters. These groups were fairly mobile in their pursuit of game such as mammoth and bison. However, they were not solely large game hunters, but utilized a variety of wild plants and smaller animals for food. Although many private collections from the Panhandle contain spear points dating to this period, only a few Paleoindian components in western Nebraska have been systematically investigated by archeologists.

The Scottsbluff Bison Quarry lies southwest of Scottsbluff and a few hundred yards from the base of Signal Butte. A substantial deposit of bison bone was exposed in the bank of Spring Creek east of its confluence with Kiowa Creek. Excavations into the bone bed during the summer and fall of 1932 by the University of Nebraska produced stone tools, flaking debris, and charcoal fragments scattered among more than thirty skeletons of *Bison antiquus* (an extinct species of buffalo). The site is 10,000–9,000 years old.

Investigations at Hudson-Meng were conducted during the 1970s by Chadron State College. The site was initially interpreted as a large scale bison processing area dating between 10,000 and 5,000 years ago. The bison were presumably driven over a now-buried cliff west of the bone bed, roughly butchered, and then taken to the bone bed area where they were more extensively processed for consumption and storage. Reinvestigation of the site by Colorado State University since 1991 has demonstrated that the earlier interpretation is inadequate. Archeologists now believe the bone bed represents a location where bison died naturally. Some of the evidence previously associated with human activity—broken bones, skeletal elements dispersal, and



This Alberta point is approximately 9,500 years old.

the absence of certain cranial portions—is more likely the result of natural processes.

Clary Ranch is a bison kill site located along Ash Hollow Creek in Garden County. The presence of bison teeth indicates that the event took place in late spring to early summer. During test excavations by the University of Nebraska State Museum in 1979, spear points were recovered, suggesting the site is 8,500 years old. Most of the bison limb bones displayed evidence for intensive butchering. The majority of the skeletons were disarticulated (bones broken apart, moved, or separated after the animal died). Deer, dog or coyote, and turtle remains were also recovered.

Foragers (9,000–2,000 years ago)

The Plains Archaic or Archaic period (9,000–2,000 years ago) is characterized by nomadic, broad-spectrum hunting and gathering and is well represented in western Nebraska. Many private collections from the region include tapered spear points and stemmed or notched projectile points dating to this period. Warmer and drier climatic conditions on the Plains during this period affected plant communities and forage availability for large grazing mammals



Signal Butte, Scotts Bluff County, 1930s.


such as bison. Archaic populations adapted to changing conditions by pursuing a variety of game animals and collecting wild plant foods.

Stone circles (often referred to as tipi rings) are common on the High Plains and are associated with this time period, as well as with the late prehistoric period. The stones were used as weights to secure the edges of skin or vegetation coverings for shelters that may have resembled tipis. Fireplaces are at the center of some. Often there are no hearths and little cultural material to indicate what their function was or how long they were used. Some of the best preserved tipi ring sites are located in Cheyenne, Kimball, Morrill, and Sioux Counties.

Butte tops were frequently used by Archaic hunters and gatherers. The best known is Signal Butte, a 120-foot-high erosional feature south of Kiowa Creek in central Scotts Bluff County. The University of Nebraska and the Smithsonian Institution investigated the site in 1932. Their excavations uncovered three distinct cultural levels. The two deepest levels date between 5,000 and 1,500 years ago. Signal Butte was one of the first sites to be dated using the radiocarbon method.

Archaic sites are also found along lakeshores and streams. Recently the NSHS Archeology Division staff conducted test excavations at an Archaic occupation site along the shore of Walgren Lake in western Sheridan County. The site consists of an extensive scatter of chipped stone debris and tools and animal bone that covers an area nearly a quarter of a mile long. Two projectile points recovered from the site suggest it was occupied at some point between 6,000 and 3,000 years ago.

The earliest well-documented human burial in Nebraska dates to 4,500 years ago and was discovered in 1992 in Cheyenne County. A young adult male was interred with a variety of grave offerings including a large, side-notched stone



Ornaments made of shells and the bones of birds and small animals, 2,000 to 3,000 years ago.

knife, portions of a turtle shell ornament, and five small, tear-drop-shaped pendants or necklace segments made of green feldspar from the Rocky Mountains. Mussel shell fragments, raven wing bones, and a small amount of red paint were also recovered.

Several significant mortuary sites dating between 3,000 and 1,500 years ago have also been studied in western Nebraska. Two such components are the Gering Burials located near Highway 26 east of Gering and the Bisterfeldt Potato Cellar site just east of Scotts Bluff National Monument. Burial patterns and offerings suggest sophisticated funerary customs.

Archaic hunter-gatherers used the spear thrower or atlatl as their primary weapon. It was a hand-held throwing stick, that in effect, acted as an extension of the throwing arm and boosted the range and velocity of a spear. Improvements were made to the system by adding ground stone weights like those recovered with the Gering Burials. The weights were placed at strategic places on the thrower, allowing the hunter to control velocity and distance.

Late Prehistoric and Historic Tribes (2,000–100 years ago)

About 2,000 years ago, people living in Nebraska began to make pottery, a technological innovation that marked the beginning of the Woodland cultural tradition. Other characteristics of the period include use of the bow and arrow, ceremonial elaboration, and domesticated food plant gardening. Woodland cultures in the Panhandle region lived in fairly small groups, utilized open campsites, and used skin tents for shelter. Evidence also indicates they used natural shelters such as Ash Hollow Cave in the North Platte valley. Sites include camp locations with hearths or roasting pits, burials, and cave/rock shelter occupations.



Ash Hollow Cave, Garden County, 1939.

During the late prehistoric period (A.D. 1000–1700) Central Plains tradition people in eastern and central Nebraska were actively engaged in hunting and gathering of wild plants and animals, as well as horticulture. The presence of Central Plains tradition people in the Panhandle region is evident in the form of small, side-notched, or triangular projectile points and ceramic sherds recovered from a variety of locations including butte tops, rock shelters, and stream valley terraces. However, very few sites of this age have been systematically investigated in the Panhandle, and only one semi-permanent habitation site of this age has been documented in the region.

The Chadron State Park site, excavated by the NSHS in 1940, contained a very irregularly-shaped stained area with several charred post molds. Archeologists determined that this was the floor of a house that may have been used as a dumping area before it was abandoned. Bone tools recovered included awls, bison scapula hoes, a fishhook, beads and a bison rib knife handle. Pottery and stone tools collected from

the site indicate that people utilized the area during the Woodland period and Central Plains tradition.

In 1985 NSHS archeologists partially excavated a bison-hunting camp near Fort Robinson on Slaughterhouse Creek, which dates to the 1500s or 1600s. Scattered around stone-lined hearths were fragments of thin pottery, stone tools, chipped stone debris, and butchered bison bone. Also found were chips of obsidian, a volcanic glass, which came from a flow in Idaho, more than four hundred miles west of the site.

Ancestors of the Plains Apache, or people of the “Dismal River” culture, occupied the Panhandle region and other areas of the High Plains from about 1650 to the early 1700s. Dismal River people had a subsistence economy based primarily upon hunting and secondarily on horticulture. Dismal River culture sites have been identified in Banner, Cheyenne, Garden, Morrill, Scotts Bluff, and Sioux Counties and include tipi rings, rock shelters, and open campsites. Dismal River components have been uncovered from deposits at the base of Courthouse Rock, on top of Signal Butte and Barn Butte, and in Ash Hollow Cave.

After European contact Native American activity in the region has a rich history. Nomadic groups who lived or traveled through the region include the Crow, Arapahoe, Cheyenne, Kiowa,



James Cook talking in sign language to Jack Red Cloud, 1916.

and Sioux. Federal treaties beginning in the mid-nineteenth century initiated a turbulent relationship between Native Americans and the United States government. The Treaty of Fort Laramie in 1851 allowed the United States to establish roads and military posts in Indian territory in exchange for annuity goods. A variety of military/government sites related to these interactions have been identified and investigated in western Nebraska including Red Cloud Agency, Fort Robinson, and Spotted Tail Agency. Several Indian camps have also been found.

Special Purpose Native American Sites

Throughout prehistory, Native Americans were dependent upon stone for tools and weapons. Many different types of raw materials were available in the Panhandle. Some raw materials were transported long distances. Several important regional quarries include Spanish Diggings in eastern Wyoming, Knife River flint quarries of western North Dakota, White River badlands of South Dakota, as well as Flattop Butte in northeastern Colorado. Chalcedony in the form of sheet silica is also abundant in the badlands of Nebraska. A variety of chalcedonies, jaspers, and cherts were also available. Much of this material originated from stream cobbles. Moss Agate chalcedony quarries occur along the Niobrara in northwestern Nebraska.

Archeological sites related to a prehistoric stone quarry, Table Mountain, were investigated during a 1992 archeology project for a Nebraska Department of Roads improvement. Table Mountain is a large mesa feature near the Wyoming-Nebraska border west of Scottsbluff.

Reduction of stone raw material was the principal activity at sites near the quarry. Recovered projectile points were mostly of Archaic affiliation. Retouched/utilized flake tools are very common at these sites. This type of tool can be



Tipi ring in Sioux County, 1966.

produced fairly quickly with little effort and is associated with light-duty butchering or plant processing. The majority of tools recovered are in the early stages of manufacture. Many may have been the product of stone core reduction. Raw material in this form is easier to transport than blocky cores and allows the carrier to manufacture tools later at locations distant from the quarry.

Although not associated with a specific time period, rock piles or cairns are another type of site that is common on the High Plains. Twenty rock cairns have been documented in Sioux County. The majority are located within Agate Fossil Beds National Monument and the remainder are located at Wind Springs Ranch in southern Sioux County. Cairns have also been investigated on the northern Plains, where a few were found to have marked burials. Some are described as components to kill sites with stone drive lines or they may have functioned as some kind of directional indicators.



Reconstructed Bordeaux Trading Post, Dawes County, 1973.

Europeans and Americans (100–200 years ago)

The presence of European traders in the region probably began during the first decades of the 1800s. James Bordeaux, a well-known and respected agent involved with the fur trade at Fort Laramie, established a small permanent post during the winter of 1837 along Bordeaux Creek, a few miles above its confluence with the White River. As a result of archeological investigations during the 1950s, the original location for the post and storage house was established and hewn-log replicas reconstructed near the Museum of the Fur Trade east of Chadron.

From the 1840s through the 1860s, large numbers of emigrants were passing through what would later become Nebraska on their way west. The Oregon-California or Overland Trail provided a land route from the eastern settlements to the West Coast.

A possible trading post and mail stop along the Oregon Trail was investigated by the NSHS during a reconnaissance survey of Ash Hollow State Historical Park. The remains of two historic structures were excavated. Recovered items included metal artifacts such as soldered

or crimped cans, square nails, and horseshoes, and items such as smoking pipes, buttons, and a butcher knife. Artifact inventories from both structures were of a similar type and on the basis of those similarities, it was determined that both buildings were built during the mid-nineteenth century. Two metal projectile points were recovered that had been imbedded in the wall and floor of the burned structure. A tentative interpretation of the site is that the buildings were once part of the Magraw/Reeside Station, a trading post that was reportedly destroyed by Brulé Sioux in 1855.

The Pony Express was a short-lived (1860–61) venture undertaken by the firm of Russell, Majors, and Waddell to deliver mail between St. Joseph, Missouri, and Sacramento, California. Thirty-seven stations were established within what is now the state of Nebraska, with nine operating out of the Panhandle. Stations were equipped with keepers, stables, animals, and equipment and in general were located about twelve to fifteen miles apart.

The Sidney-Black Hills Trail was a 267-mile-long thoroughfare for bull wagons, mule trains, mail couriers, and stagecoaches during the Black Hills “gold rush” of the late 1870s through the early 1880s. The volume of traffic over the trail



Trading post excavation, Deuel County, 1968.

increased greatly and reached its peak from 1876–78. Many of the trail ruts still exist in areas that have not been farmed or developed. Several stage stations existed along the trail. Many of these have been identified as archeological sites during times of the year when vegetation is sparse along the entire length of the trail.



The Spanish Cross, Sheridan County, 1972.

Remains of an Overland Trail road ranche or stage station near Chappell in Deuel County were excavated in 1968 by the NSHS in response to construction of Interstate 80. Diagnostic artifacts from the site date to the 1850s and 1860s. Evidence from the excavations indicates that the station was built during the early 1860s, a period when the Pony Express, stage, and emigrant traffic through the Lodgepole Creek valley was active. After it was initially abandoned, the site was utilized as a campsite by military personnel, who guarded crews laying tracks for the Union Pacific Railroad in 1867.

Removal of Native American populations to reservation lands in 1877 opened the northern Panhandle to Euroamerican settlement and large cattle ranching operations. Bronson's Ranch, established in 1878 along Dead Man's Creek five miles south of Fort Robinson, represents one of the earliest cattle ranches in western Nebraska north of the Platte River.

The Spanish Cross near White Clay in Sheridan County is one of only three known examples of petroglyphs in the Panhandle. Its origins remain a mystery to archeologists and ranchers alike. The site consists of a single cross, over three feet high, carved in rock beside a Spanish inscription. Early investigators believed the cross may have marked the grave or route of an early explorer in the late 1700s or early 1800s. The name carved in stone is interpreted as Celedonio Garcia. Another more plausible explanation is that the cross represents a personal shrine of an early settler/clergyman who lived in the area.

Preservation of Nebraska Archeological Sites

Archeological resources of the Nebraska Panhandle are as rich and varied as the topography and like the land forms are subject to the same environmental catalysts. Erosion by wind and water has contributed to the displacement and disappearance of many archeological components. Yet the dynamic nature of the environment also exposes many sites to view that have been deeply buried for thousands of years. The Archeology Division staff desires to work closely with landowners and ranchers to document these sites as important glimpses into Nebraska's past. Archeological sites are fragile and non-renewable resources. Looting for fun or profit has profound effects on significant sites. The loss of information makes it nearly impossible to interpret the site for the benefit of science and public appreciation.



Excavated Native American fireplace, Banner County, 1999.

The Nebraska State Historical Society recognizes the need to balance preservation and the public's desire to participate in research. This publication series is directed to this need. The Society sponsors volunteer excavations for the general public.

For more information please call the Society archaeological staff at Fort Robinson at (308) 665-2920 and 665-2918 or in Lincoln at (402) 471-4760. Our e-mail address is archnshs@nebraskahistory.org. Also, visit our website (nebraskahistory.org).

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