

# **The Setting Of The Thunder Basin-Cultural Resources**

or

## **10,000 Years Of The Good Life In The Thunder Basin**

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Cultural resources are divided into the Prehistoric, Protohistoric, and the Historic. The prehistoric occupation of the Thunder Basin begins about 10,000 years ago and ends with the introduction of European trade items and the introduction of the horse around AD 1750. The protohistoric is between AD 1750 and the 1860s. For purposes of cultural resource management, historic means older than 50 years ago.

### **Prehistoric**

The prehistoric cultural periods are based primarily on changes in projectile point styles. The prehistoric is divided into five cultural periods (Frison 1991):

Late Prehistoric	AD 500 to circa AD 1750
Late Plains Archaic	1,000 BC to AD 500
Middle Plains Archaic	1,000 BC to 3,000 BC
Early Plains Archaic	3,000 BC to 5,500 BC
Paleoindian	10,000 BC to 5,500 BC

Within the Thunder Basin two types of prehistoric economies existed: an economy based on the pursuit of bison (i.e., Big Game) and an economy based on the hunting of a wide variety of animals and the gathering of a wide variety of plant foods (i.e., Archaic). These two economies probably were not exclusive until the introduction of the horse, which made it possible to sustain a Big Game economy. It is this tension between the two economies that has been left in the archaeological record. The large communal bison kills are used as evidence of a Big Game based economy. The

campsites containing faunal remains from a wide variety of animal and grinding slabs (presumably used for processing seeds) suggest an Archaic way of life.

### ***Prehistoric Site Types***

There are six common prehistoric site types and they are:

1) Lithic Scatter –	Consists of flakes of chipped stone lying on the surface and perhaps stone tools broken during manufacture
2) Campsite –	Consists of some combination of fire-pits (hearths), pit ovens, flakes, variety of chipped stone tools, grinding
3) Stone Ring --	As the name implies, stones are aligned in a more or less circular manner. They may be associated with a tipi, a domed lodge or a sleeping circle where no structure existed. They often include the same features and artifacts as campsites.
4) Rock Cairns and Miscellaneous Rock Structures --	These sites include individual piles of rock, drive lines associated with kill site and rock walled structures. Some rock structures may be associated with religious activities, breastworks, or lookouts
5) Bison and Pronghorn Kill and Processing Locations --	These sites include a large amount of broken bone, hearths, ovens, tools, and flakes
6) Rock Art --	These sites include petroglyphs and pictographs depicting human and animal figures carved or painted into or on sandstone outcrops

### ***Prehistoric Resource Utilization***

The Thunder Basin offered the prehistoric inhabitants three important resources: The most important resource was the vast expanse of grassland that includes sage and greasewood. The grassland provided forage for a variety of prey species including bison (*Bison bison*), pronghorn (*Antilocarpa american*), elk (*Cervus elaphus*) and mule deer (*Odocoileus hemionus*). Sage and greasewood were used extensively for fuel in hearths and ovens. Other fuels used include ponderosa pine and plains cottonwood. Local pollen studies do not show any major environmental changes in the last 13,000 years (Margraf and Lennon 1986). However, starting around 5,000 years ago the climate became more mesic. Pollen samples suggest a decrease in sagebrush starting around 3,000 to 4,000

years ago. This decrease may indicate a gradual climatic shift. Sage is a deep-rooted plant and does quite well when soil moisture is deep. Infrequent but intense periods of precipitation results in moisture near the surface; this favors grasses. In other words, there may not be an increase or decrease in the annual amount of moisture by a shift to a more continental climate. Around 2,000 years ago pollen samples show a short lived but substantial increase in the number of ponderosa pine (Munson and Ferguson 1999). During the Late Prehistoric there are indications that the inhabitants of the Powder River Basin practiced fire ecology. I have excavated several sites where the Late Prehistoric component lies within charcoal stained soil from a range fire. It is possible these fires were not intentionally started but it is also possible that the inhabitants of these sites started fires when leaving an area.

Native Americans utilized a wide variety of plants for food, medicine, and fiber. Important local plants include the plains prickly pear (*Opuntia polyacantha*), sego lily (*Calochortus spp.*), biscuit root (*Lomatium spp.*), and yucca (*Yucca glauca*).

Locally available lithic materials used for making stone tools include porcellanite that was created from burning coal seams underlying silica rich shale, and lag deposits that include chert, chalcedony, quartzite and agatized wood cobbles.

### ***Prehistoric Demographics***

#### ***Site Numbers Through Time***

There are few recorded Paleoindian and Early Archaic sites in the Thunder Basin. This may be because erosion has destroyed these early sites or more likely the Basin's population density was low. Based on site numbers, the population began to increase during the Middle Archaic (or around 5,000 years ago). Late Archaic and Prehistoric

sites are well represented and may be about equal in number. It is likely that the campsites represent locations where small groups of 30 or less people stayed for several days to perhaps a month. Some of the sites were revisited seasonally for several years and some sites are multi-component with hundreds to thousands of years between occupations.

It is probable that population densities across the Thunder Basin fluctuated through time. These population pulses may be area specific as what appears to have taken place along the Porcupine Creek drainage or they may be across the entire Thunder Basin or perhaps they are regional. These population pulses will be better defined as more excavations are done and with improved radiocarbon dating techniques.

### ***Site Locations***

Site Locations through time are skewed because the terraces along the creeks and the Belle Fourche River are no older than the Late Archaic. In general, there does not appear to be any definite selection for particular landforms through time. Except for the recent terraces along the drainage bottoms all landforms can be expected to include Paleoindian through Late Prehistoric sites.

Site densities decrease dramatically with distance from water. Not only do site densities decrease but sites that are likely to contain significant cultural deposits are very rare in areas that lack water. The water holes along drainages such as the Belle Fourche River, Antelope Creek, Horse Creek, and Porcupine Creek likely were magnets for prey species as the seasonal water sources dried up. This is when hunting was probably relatively easy and successful.

## Protohistoric

### *Protohistoric Site Types*

There are three typical protohistoric site types and they are:

1) Campsite –	Same as prehistoric campsites with the addition of European trade items such as beads, metal arrow points and gun flints
2) Stone Ring –	Same as prehistoric stone ring sites except with the addition of European trade items
3) Petroglyphs and Pictographs --	Include hoses and guns carved or painted into or on sandstone outcrops

### *Protohistoric Resource Utilization*

It is likely there was an emphasis on the hunting of bison and a need to consider forage for horse herds, especially in winter.

### *Protohistoric Demographics*

There are too few sites of this type for analysis.

## Historic

### *Historic Site Types*

There are six common historic site types and they are:

1) Herding Camp –	Consists of a scatter of food cans and sometimes bottles
2) Homestead –	Consists of foundations, depressions, and buildings
3) Ranch Headquarters --	Similar to homestead with the possible addition of larger and more complex corrals
4) WPA (Works Projects Administration) --	The most common are dams
5) Wagon Mine --	A small underground coal mine
6) Trails --	Usually consist of ruts made from wagons and teams

### *Historic Resource Utilization*

The grassland was used for grazing cattle and sheep. Starting with the Homestead Era, farming was attempted. Crops planted include wheat, barley, oats and corn. Small-scale coalmines commonly called wagon mines were common.

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### *Historic Demographics*

The nineteenth century phases of regional history, including exploration, military activities and open-range cattle and sheep raising brought few people into the Thunder Basin. This began to change when rail transportation reached northeast Wyoming in the late 1880s and the town of Gillette, a rail shipping point, was established in 1881. The rapid increase in the number of homesteads around Gillette lead to the establishment of Campbell County in 1911. The railroad and the government encouraged dry-land farming on the newly established homesteads. In Campbell County there was a tremendous boom in wheat farming in the 1920s.

The 1920s on the Great Plains were difficult times. The end of World War I in November 1918 resulted in a sharp drop in agricultural commodities prices, resulting in deflation and bank failures. Campbell County defied the regional decline in population in the 1920s. Between 1920 and 1930, the county's population grew 28%, from 5,233 residents to 6,720 (U.S. Department of Commerce, Bureau of Census [USDC, BC] 1942:1185). The number of farms and ranches in the county nearly tripled and the area in wheat threshed expanded twenty fold, from just 2,102 acres in 1919 to 41,752 in 1929 (USDC, BC 1932:222, 230).

The drought in the 1930s combined with the Great Depression resulted in rapid depopulation of the Thunder Basin. The federal government established the Northeast Wyoming Land Utilization Project, better known as the Thunder Basin Project in late 1934 to provide relief for the homesteaders by purchasing their land and any improvements. Public Works Projects focused on rangeland improvements including reseeding, dam building, and the removal of homestead buildings.

The remaining ranches of the 1940s and 1950s were significantly larger and provided a stabilizing effect on the local economy.

### **Summary**

The Thunder Basin has provided 10,000 years of livelihood for its people. The population has generally increased through time, but there have been periods of population fluctuation. For example, around AD 600 to AD 900 the population appears to have dramatically increased for yet to be determined reasons. Then from around AD 1200 to AD 1350 the population appears to have dramatically decreased followed by another up surge that lasted at least into the 17th Century. During the Historic Period, the Homestead Era saw a rapid increase followed by a rapid decrease in population.

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