

ARCHAEOLOGY OF NORTHWESTERN OKLAHOMA: AN OVERVIEW

A Thesis by

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major in Anthropology.

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DEDICATION

To my father, my husband, my twin, and the rest of the family

ABSTRACT

This work will compile recent archaeological information about prehistoric inhabitants of northwest Oklahoma, the environments they occupied, and the archaeological studies that have informed us about them. The purpose is to construct an overview of the region that has been developed since the 1980s. Recommendations are offered about possible research objectives that might help tie this area in with larger studies of landscape archaeology, prehistoric adaptations to the area, and settlement systems.

The primary contribution of the present study is to compile and make available in a single source some of the important information recently developed for Alfalfa, Blaine, Dewey, Ellis, Garfield, Grant, Harper, Kingfisher, Major, Woods, and Woodward counties. Studies in this area have added substantial information in the areas of pre-Clovis first Americans, the Clovis and other Paleoindian cultures, Archaic, and more recent inhabitants of the region.

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CHAPTER 1

INTRODUCTION

Knowledge about the archaeological record in northwestern Oklahoma comes from several regional summaries written prior to 1990 and more recent archaeological reports. These reports have provided significant advances in the knowledge about the archaeological record of northwestern Oklahoma. Most of this information is published in reports written by Oklahoma Archeological Survey archaeologists as well as in short articles produced for the Oklahoma Anthropological Society newsletter and bulletin. None of this information has been compiled since the last publication of a Southern Plains regional summary in the late 1980s. The reason for this is that sites in northwestern Oklahoma were not given the same attention as that which is given to mounds, villages, and camps in other parts of the state (Wyckoff and Brooks 1983: 263) until recently. Assembling this information and providing an overview of this information will facilitate further research in northwestern Oklahoma. Providing the information about the written sources for northwestern Oklahoma will help further research into the archaeological record in the region. This thesis will assemble an overview of all available archaeological materials that will assist further research into the archaeological record of northwestern Oklahoma.

Study Area

The counties included in this study comprise of the top three tiers of counties in northwestern Oklahoma just east of the Oklahoma panhandle and extending eastward into north-central Oklahoma. These counties consist of Alfalfa, Blaine, Dewey, Ellis, Garfield, Grant, Harper, Kingfisher, Major, Woods, and Woodward counties.

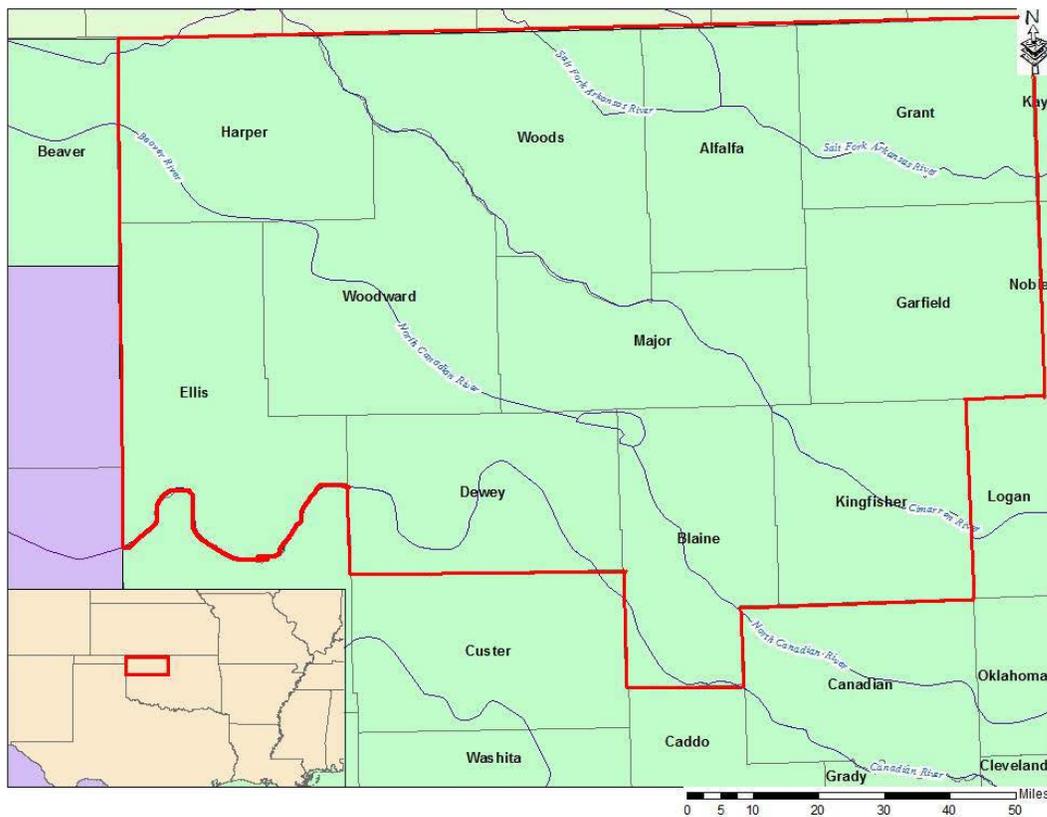


Figure 1. Counties included in the thesis project area

Culture History

New information about the archaeological resources in northwestern and north-central Oklahoma have been compiled and described according to broad prehistoric time periods. These

time periods reflect changes in cultural materials as well as subsistence strategies. These broad prehistoric time periods include the first Americans, Paleoindian, Archaic, Woodland, Late Prehistoric, Protohistoric, and the early European explorers.

The first Americans describe the earliest cultural materials found in Oklahoma. Sites of this time period are also called Pre-Clovis sites because Clovis is the earliest accepted archaeological culture in the New World. Two Pre-Clovis sites exist within the thesis area. One of the sites, the Burnham site, provides the best evidence for the occupation of northwestern Oklahoma before the Clovis peoples.

Date	Time Periods		Cultures
A.D. 1600	Protohistoric		Protohistoric Wichita (A.D. 1700-1760) Wheeler Phase (A.D. 1500- 1725)
A.D. 1500	Late Prehistoric/ Plains Village		Zimms Complex (A.D. 1265- 1425) Custer Phase (A.D. 800- 1250) Turkey Creek Phase (A.D. 1250- 1450) Antelope Creek Phase (A.D. 1200-1500) Bluff Creek Phase (A.D. 1100- 1300)
A.D. 1000	Woodland		Unknown
A.D. 500	Archaic		Unknown
A.D. 1	Archaic	Late	Unknown
2,000 B.C.		Middle	Calf Creek (4,500- 2,200 B.C.)
4,000 B.C.		Early	Unknown
6,000 B.C.	Paleoindian		Late Paleoindian (8,000- 6,000 B.C.) Folsom Complex (9,000- 8,000 B.C.) Clovis Complex (12,000- 9,000 B.C.)
8,000 B.C.	Pre-Clovis		Unknown
10,000 B.C.			
12,000 B.C.			
14,000 B.C.			

Figure 2. Timeline of archaeological time periods in Oklahoma.

The Paleoindian period is characterized by the use of large, lanceolate projectile points used to hunt large game mammals. No Paleoindian sites were documented in northwestern and north-central Oklahoma the early 1990s. The last regional summary (Hofman et al. 1989) did not list any Paleoindian sites within the thesis area. Since then, at least five Paleoindian sites have been discovered. These include two Clovis sites, two excavated Folsom sites, and various isolated finds of Folsom points.

The Archaic period can be characterized by the use of corner-notched dart points. The time has been divided into three temporal subdivisions: Early, Middle, and Late Archaic. Climate change during this period initially led archaeologists to believe that no Archaic sites would exist within the project area. No sites have been discovered that date to the Early Archaic which may reflect the climate changes leading to the depopulation or more marginal areas of the state. The Middle Archaic contains one known archaeological culture, the Calf Creek culture. Identifying Late Archaic sites proves problematic for northwestern and north-central Oklahoma. Many of the cultural materials used to identify Late Archaic sites are also seen in Woodland sites in the area.

The Woodland period is one of the least understood time periods in northern Oklahoma. Horticultural practices were developed during this period. The main distinctions between the Woodland and Late Archaic sites is the use of pottery and the presence of corn at one site for Woodland periods sites. Very few Woodland sites have been identified in the thesis area. This may reflect research bias or deeply buried deposits. The few sites that have been discovered provide new insight into the development of the Woodland period in northwestern Oklahoma.

The Late Prehistoric period, also called the Plains Village period, is one of the best understood time periods in northwestern and north-central Oklahoma. It is the period where peoples began settling into villages and depended on horticultural practices and the hunting of large game. Several cultural complexes have been identified for the Southern Great Plains. Only two, with the possibility of a third, cultures are known within northwestern Oklahoma. Some debate still exists about the boundaries of some of the cultural complexes, and despite this debate, the Late Prehistoric represents the time period with the best understood sites.

The Protohistoric period represents the time of the First European contact and the appearance of Euro-American trade goods in the archaeological record. It represents the time of great and rapid cultural change in Oklahoma. One, possibly two, cultural complex has been identified in western Oklahoma. European explorers and traders passed through the area, but few kept detailed notes about the route that was taken and the peoples that were encountered.

Within each time period, cultures have been identified. Attempts at classifying these cultures led to two systems of classifications of cultures. The person to first attempt a classification system of cultures was W.C. McKern. W.C. McKern developed the Midwestern Taxonomic Method to identify cultures and group cultures with similar traits in the Midwest (McKern 1939). The Midwestern Taxonomic Method is based on the principles of Linnaean evolution (Lyman and O'Brien 2003: 13). It describes cultures in terms of related traits. The most basic form of classification is the focus. A focus is a group of sites that share cultural material traits across sites. An aspect is a group of foci that share cultural traits but possess some differentiation in cultural traits. The phase is comprised of aspects with similar cultural traits. More general cultural traits are used to define the phase that foci or aspects (McKern 1939: 308). The pattern consists of several phases that share general characteristics not seen in other phases.

The base is the broadest cultural classification. It is comprised of patterns that share broad characteristics. This system was the earliest attempt at culture classifications in the Midwest, but it failed to address the problem of time and distance in the archaeological record.

Gordon R. Willey and Philip Phillips set out to address the problems associated with the Midwestern Taxonomic Method. They introduced the idea that cultures and groups should also be classified according to time and space as well as classifying cultures based on material items. One of the most basic units of classification is the component as described by W.C. McKern (McKern 1939:308). It is the basis for the focus. A phase will manifest in one or more components (Willey and Phillips 1958: 21-22). A phase is defined by Willey and Phillips (1958: 22) as an “archaeological unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultures or civilizations, spatially limited to a relatively brief interval of time.” Two units of classification define the relationship between a cultural manifestation and time and space. The horizon is “a primarily spatial continuity represented by cultural traits and assemblages whose nature and mode of occurrence permit the assumption of a broad and rapid spread” (Willey and Phillips 1958: 33). The tradition is a “temporal continuity represented by persistent configurations in single technologies or other systems of related forms” (Willey and Phillips 1958: 37). The tradition described the relationship between a cultural manifestation and temporal depth while a horizon describes spatial breadth in the archaeological record. Willey and Phillips (1958) attempted to address some of the problems with the Midwestern Taxonomic Method but the similarities in terminology can make understanding the archaeology on the Southern Plains complex.

Prior Studies

Several compilations of Oklahoma archaeology and archaeology of the Southern Plains (Wyckoff and Brooks 1983; Hofman, et al 1989; Bell, ed. 1984; and Bell and Baerreis 1952) have been written over the years, but knowledge of the archaeological record in northwestern Oklahoma remains scanty. Many of the regional studies address the better known complexes within the state of Oklahoma rather than the less known northwestern area of the state. Richard Drass and Christopher Turner (1989: 1) describe the reason for the lack of archaeological information about this region being due to the “lack of systematic surveys” to determine “where sites might be expected to occur or the types of sites that might exist in various settings”. More recent investigations (Bement et al. 2002, McKay et al. 2004, Drass 2003, Graves and Bement 2006, Drass 2001) were conducted in an attempt to solve this problem in northwestern Oklahoma. Little has been done to compile the recent information about the archaeological record in northwestern Oklahoma. No comprehensive studies of the region have occurred since the earlier mentioned works from the 1980s or earlier. New archaeological data is available that provides more detailed information on northwestern Oklahoma archaeology. The thesis will discuss the results of these prior studies and incorporate them into a comprehensive overview of the written record of the archaeological record of northwestern Oklahoma.

CHAPTER 2

ENVIRONMENTAL SETTING

Geology

The geology of northwestern Oklahoma is varied. Much of the region consists of Permian deposits. These deposits consist of red sandstone with outcrops of white gypsum. Quaternary deposits border the major rivers and Wolf Creek. Quaternary deposits consist of clay, gravel, sand, and silt. Tertiary deposits are located on the far western portion of the thesis area including most of Ellis and part of Harper and Blaine Counties. Tertiary deposits are river and windblown deposits of caliche, clay, gravel, and sand draining in the Rocky Mountains. Cretaceous deposit outcrops in northern Woods County, southwestern Woodward County, and northern Dewey County are also observed. These deposits consist of non-marine sand and clay and marine limestone and clay. These deposits are rare in northwestern Oklahoma.

Lithic Sources

Northwestern Oklahoma has sources of lithic materials used by prehistoric peoples. In the far northwest, the Ogallala formation provides chert, petrified wood, and quartzites (Banks 1984: 71). Ogallala quartzite is common on the Southern Plains. Most of the project area is located in one of the least productive lithic resource area in the state. Cobbles of chert from gravels are found along the rivers and streams. Debate exists about the classification of this

material. Previous archaeologists have classified this material as Day Creek chert, but current research suggests that this material is really Alibates agatized dolomite (Drass 1993).

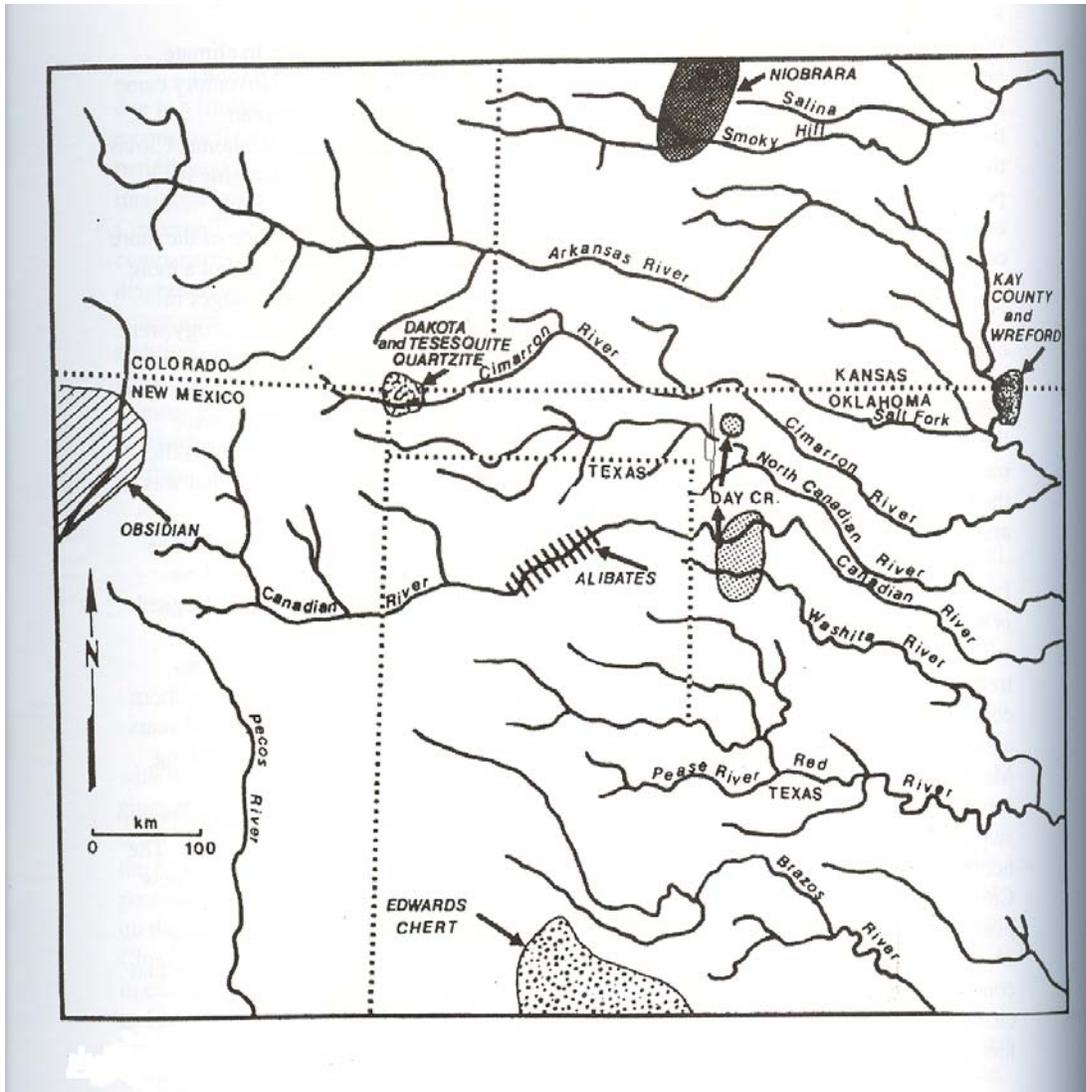


Figure 3. Lithic sources in northwestern and north-central Oklahoma (Drass and Turner 1989: 68).

Other lithic materials are exotic to northwestern Oklahoma but are still present at sites in this region. One of the most common exotic lithic resources is Alibates agatized dolomite. This material occurs in one location in the Texas panhandle. Another common exotic lithic material

is Florence A chert, also known as Kay County chert. It is found in the Flint Hills of Kansas and in northern Oklahoma. Less represented in Oklahoma sites is Niobrara jasper. Niobrara jasper or Smoky Hill jasper is located in outcrops in the Smoky Hills region of northwestern Kansas and southwestern Nebraska. Obsidian found in northwestern Oklahoma sites has been sourced to the Jemez Mountain region of New Mexico (Hofman 1984: 352) as well as to sources in Idaho (Brosowske 2002: 23).

Biotic Districts

The area of northwestern and north central Oklahoma consists primarily of mixed grass prairie. The mixed grass prairie is the ecotone between the tall grass prairies of the east and the short grass prairie of the west. It occurs in areas receiving 25 to 30 inches of rain annually (Morris et al. 1986: 9). The grasses of the mixed grass prairie are a mixture of short and tall grasses that shift frequencies from east to west as annual moisture rates decrease. Plant species include the bluestem-grama-Indiangrass group common on the true prairie and buffalo-needlegrass-grama group common on the short grass prairie (Albert and Wyckoff 1984: 26). Other plant species common on the mixed grass prairie include sand sage, beardgrass, plum thickets, and sumac. The tall grasses are gradually replaced east to west by drought-resistant short grasses. The short grasses have an advantage over tall grasses in drier environments (Bruner 1931: 111). Current usage of the mixed grass prairie is primarily for cattle grazing. The cattle industry in Oklahoma has over-grazed many areas of the taller grasses, thus giving the appearance of predominately short grasses being present (Weaver and Albertson 1956: 21).

Interspersed with the mixed grass prairie is the cross timbers physiographic area. The cross timbers are dominated by post oak and blackjack oak (Morris et al. 1986: 9). This occurs

in the project area along stream banks in only broken patches in Blaine, Kingfisher, Major, and Woodward Counties.

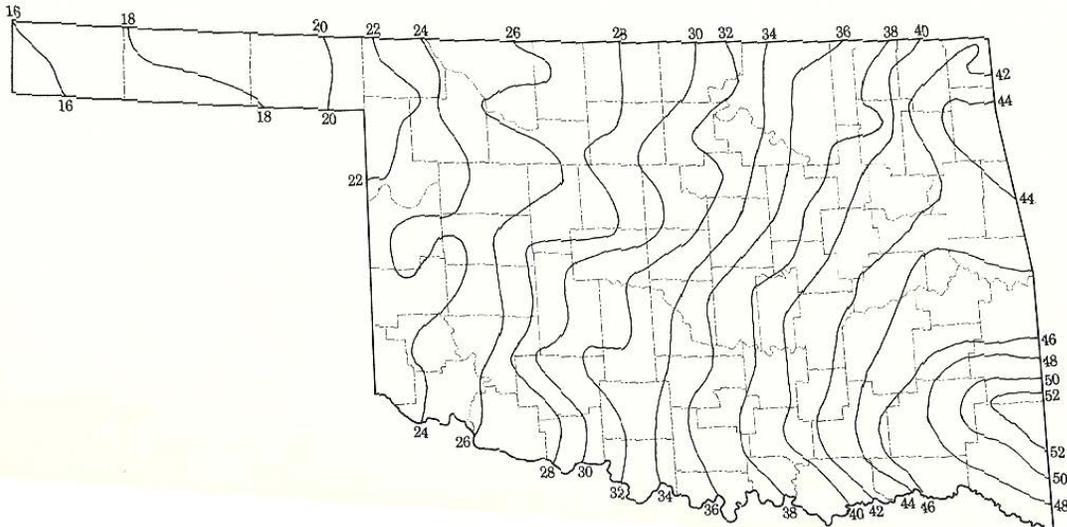


Figure 4. Annual rainfall amounts in inches across Oklahoma (Morris et al. 1986: 7).

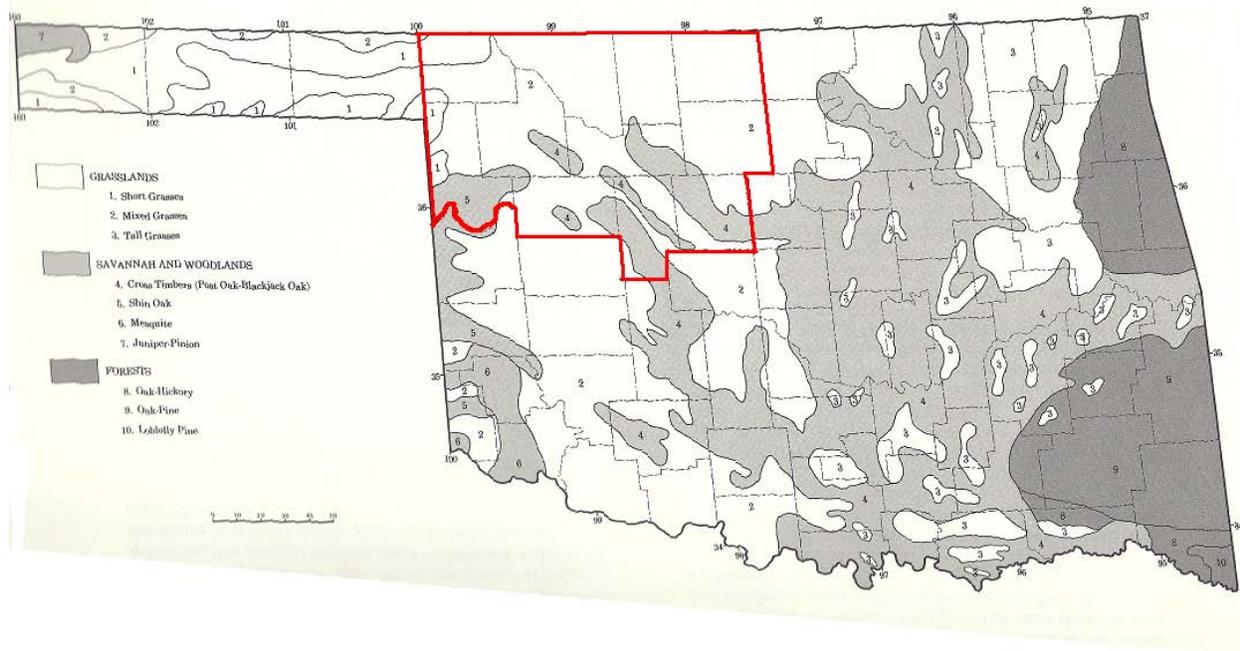


Figure 5. Biotic districts in Oklahoma (Morris et al. 1986: 9).

Far western Oklahoma, including parts of Harper and Ellis Counties, is part of the short grass prairie. Areas of short grass prairies occur in places with less than 25 inches of precipitation annually. Short grass species include buffalograss, needlegrass, and gamma grasses. Other plant species common on the short grass prairie are yucca, sand-sage plant, and scattered cottonwoods and plums along stream margins and terraces (Albert and Wyckoff 1984: 30). The short grass prairie extends into Harper and Ellis Counties.

Physiography

The project area contains three different geographic regions: the High Plains, the Gypsum Hills, and the Redbed Plains. The High Plains consists of the panhandle and the far northwestern portion of the state. The area is “high, nearly level plain... interrupted by canyon-like stream courses and irregularly distributed tertiary sands, clays, and gravels” (Bruner 1931: 106). The High Plains region may contain some sand dunes and playas.

The Gypsum Hills lie directly east of the High Plains. The hills of the Gypsum Hills region are capped with between 15 to 20 feet of white gypsum (Morris et al. 1986: 3). Red shales are also common in this area. The greatest relief of the Gypsum Hills occurs in the northwestern part of the state. The hills extend in a general north-south direction. Red shales are also common in this area.

The Redbed Plains is located through central Oklahoma and extends north and south through the state. It is characterized by red Permian clays and shales that have been weathered into gently rolling hills. Steep bluffs are rare in this region (Gould 1909: 19).

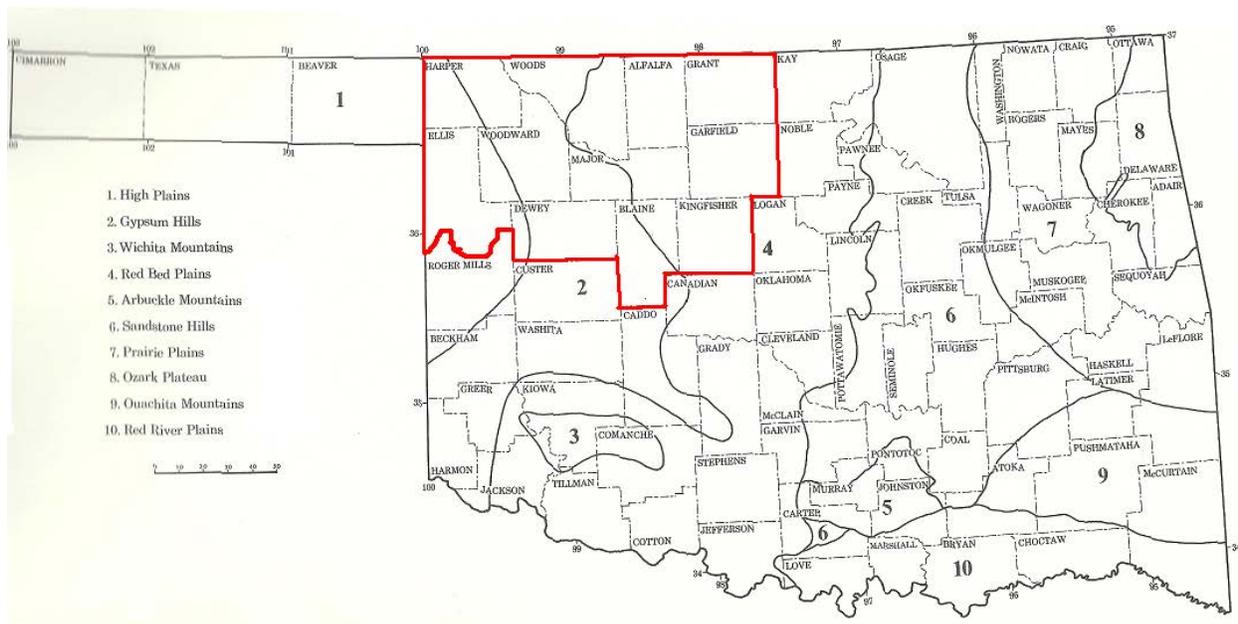


Figure 6. Geographic regions of Oklahoma (Morris et al. 1986: 3).

Drainages in the project area tend to flow in a northwestern to a southeastern direction. These drainages are tributaries of the Arkansas River and include the Salt Fork of the Arkansas River, the Cimarron River, the North Canadian River, and the Canadian River on the southern boundary of the project area. The Salt Fork of the Arkansas begins in southeastern Kansas and flows in a southeastern direction through northern Oklahoma. The river turns salty once it flows through the Salt Plains in Alfalfa County (Gould 1909: 57). The primary tributaries of the Salt Fork include the Medicine, Mule, Sand, Chikaskia, Deer, Cottonwood, and the Bois d' Arc creeks. The Cimarron River rises in New Mexico and flows east eventually flowing into the Arkansas River. The main tributaries of the Cimarron are the Buffalo, Eaglechief, Salt, Turkey, Kingfisher, Cottonwood, Skeleton, and Stillwater creeks (Gould 1909: 57). The North Canadian River is formed by Wolf Creek and Beaver Creek which unite in Woodward County (Gould 1909: 55). No salt springs feed the North Canadian River keeping the water pure. The river has

several tributaries: the Deep Fork, Wewoka, Persimmon, and Indian creeks. The Canadian River is the largest tributary of the Arkansas River. It begins in New Mexico and joins the Arkansas near Fort Smith (Gould 1909: 55). The largest tributary of the river is the North Canadian with other larger tributaries including the Gaines Creek, Little River, and Deer Creek.

Climate

The climate of the Southern Great Plains can be characterized as semiarid to subhumid continental. The climate of the project area is highly variable, and temperature changes can occur very rapidly. Average annual temperatures for the project area range from 34- 38° F in the winter to 80- 82° F in the summer months. Extreme fluctuations are common. It is not uncommon to have highs during the summer in the 100s F or as low as 17° F in the winter.

Rainfall in northwest Oklahoma mostly occurs in the spring months when Gulf Air masses produce moisture in the region. Annual rainfall can fluctuate between 30 cm to 90 cm. Moisture comes mostly in the form of spring thunderstorms. Those intense and brief thunderstorms produce heavy rain over a short period of time and can cause flash flooding along the rivers and their tributaries.

CHAPTER 3

FIRST AMERICANS

First Americans

The earliest well-documented occupation of the American continents by humans occurred about 12,000 years ago with the group of people termed the Clovis culture, but some sites in North and South America are potentially older than Clovis occupations. This presents a problem as no distinctive and well-documented cultural complexes occur in North or South America before about 12,000 years ago.

Certain criteria are necessary for the complete acceptance of archaeological occupations dating before the well-documented Clovis culture. Dennis Stanford (1983: 65) describes the four criteria that must be met before pre-Clovis sites will be widely accepted as being “a clearly defined stratigraphy, reliable and consistent radiometric dates, consonance of data from relevant interdisciplinary studies, and the presence of unquestionable artifacts in an indisputable primary context.” Most pre-Clovis sites cannot meet all of these requirements, but sites reported to be older than Clovis still are discovered and reported.

Several sites throughout North and South America claim to have a pre-Clovis date. A couple of the most well-known possible pre-Clovis sites include Monte Verde in Chile (Dillehay 1989) and the Meadowcroft Rockshelter in Pennsylvania (Carlisle and Adovasio, eds. 1982). Most of the pre-Clovis sites are controversial and not widely accepted within the archaeological community.

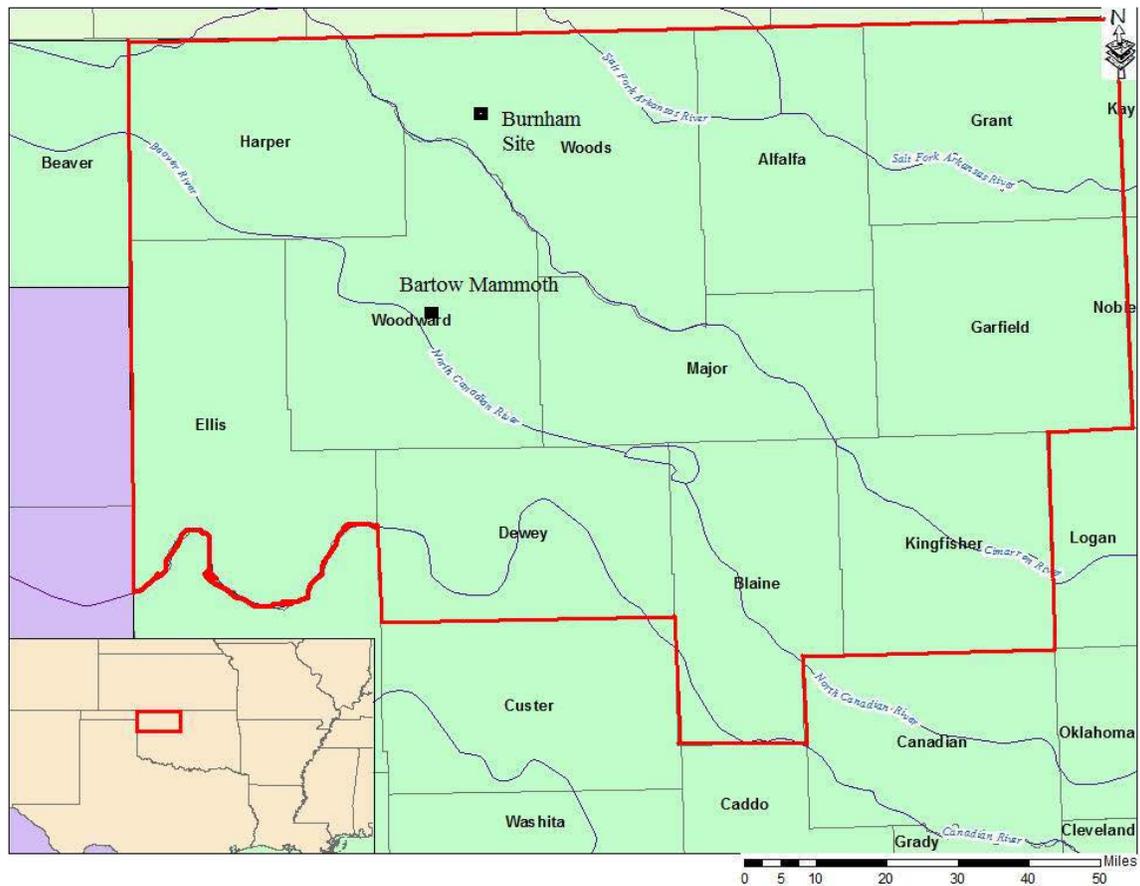


Figure 7. Pre-Clovis sites in northwestern Oklahoma.

Three main factors are cited for the arguments against most pre-Clovis sites. These arguments are the highly questionable dates for some sites, the lack of a widespread pre-Clovis material assemblage, and the inability to distinguish between natural and manmade artifacts in the archaeological record (Hofman 1989a:26). Pre-Clovis sites in Oklahoma contain some of these same issues with other pre-Clovis sites in North and South America. Three sites in Oklahoma are possible pre-Clovis sites. Two of the three sites occur within the region of this study. One site is located south of the project area. The one site, not within the thesis boundaries, in southern Oklahoma is the Cooperton mammoth kill site. The two sites in the project area are the Bartow mammoth and the Burnham bison kill site.

The Cooperton Mammoth

The Cooperton site located in Kiowa County in southern Oklahoma is the one site reported to be a pre-Clovis site outside of the project region. The site contains the remains of a mammoth with radiocarbon dates indicating a pre-Clovis occupation. A single mammoth was discovered in 1961 and excavated by the Museum of the Great Plains (Anderson 1975: 143). There were no diagnostic artifacts found during the excavation that conclusively proves that the site is the result of human hunting and not natural processes. Only three stone artifacts were found at the site (Anderson 1975: 147-149). Two cobbles which were interpreted as hammerstones and one small boulder interpreted as an anvil. Several of the mammoth bones exhibited green-bone fractures which could indicate human activity but can also occur naturally. Three radiocarbon dates were obtained from the skeletal remains. The dates fall between 17,000 and 21,000 B.P. (Anderson 1975: 156). Without diagnostic artifacts and with the natural occurrence of green-bone fractures, the Cooperton mammoth is most likely not a pre-Clovis site.

The Bartow Mammoth

The Bartow mammoth site, 34WD13, is located in Woodward County, Oklahoma and is the site of a single mammoth skeleton. No diagnostic artifacts were found at the site. A flint rock was found near the ribs of the skeleton and a quartzite flake was also found near the same area (Kerr 1964: 5). These possible artifacts do not provide clear evidence of human activity involved with the skeleton of the mammoth. One radiocarbon date of $11,990 \pm 170$ (A-582) was

collected from a rib sample (Hofman 1989a: 28). The date is only slightly older than Clovis dates and may not represent pre-Clovis activity.

The Burnham Site

The Burnham site, 34WO73, is another site that has been presented as a possible pre-Clovis site in northwestern Oklahoma. The site is located in western Woods County along a tributary of the Cimarron River and was first recorded in October of 1986 (Hofman and Graham 1998: 92). It was found during construction of a farm pond. The location of the site is on slightly sloping ground between the Cimarron River to the north and a high ridge running east-west (Wyckoff and Carter 2003: 263). Initial testing at the Burnham site revealed bison bones, other mammal and reptile bones, and several flakes. The flakes were found in the same sediment layers as the bison bones. This led to intensive fieldwork that was conducted at the site in 1988, 1989, 1991, and 1992 (Wyckoff and Rubenstein 2003: 13). The results of this fieldwork are discussed in the volume *The Burnham Site in Northwestern Oklahoma: Glimpses Beyond Clovis?* (2003) edited by Don G. Wyckoff, James L. Theler and Brian J. Carter. About 23 m³ of sediment was excavated and waterscreened from the Burnham site. All lithic material was saved from the site including human made and naturally occurring flakes. Radiocarbon dates collected from the site reveal that the sediment layer containing the bison bones and human produced flakes dated to before the Clovis occupation.

The types of bones discovered at the Burnham site represent those of fish, amphibians, reptiles, birds, and various mammalian species. Only one species of sunfish, *Lepomis cf. cyanellus*, is identified at the Burnham site, and one vertebra from an unknown species of fish

also represented. The species of sunfish is one that lives in semi-isolated bodies of water (Martin and Meehan 2003: 139). Amphibian species identified at the site include salamanders and frogs. Several reptilian species are present at the Burnham site. These include turtles, snakes, lizards, and a single alligator (Martin and Meehan 2003: 130-131). Two species of bird bones have been identified. Mammals at the Burnham site include ground sloths, various species of rodents, rabbits, coyote, bear, mammoth, llama, a probable elk, and two types of horses (Martin and Meehan 2003:131-134). In addition to the various species uncovered at the Burnham site, a single bison skeleton was discovered.

The bison discovered at the site was at first believed to be those of *Bison latifrons*. This, however, was incorrect. The bison bones represent those of *Bison cheneyi* or *B. alleni* (Wyckoff et al. 1990: 60). They occur in the second lowest of four gleyed units and in the upper 20 centimeters of the underlying mottled red fill. A complete bison skeleton was not found. The bones found include the skull, jaw, teeth, horn core fragments, scapula, vertebrae, and ribs (Martin and Meehan 2003: 132). The bison bones do not have evidence of butchering, but lithic materials were found in the vicinity of the bones.

The lithic material discovered at the site introduced the idea that Burnham site also contains an archaeological component. As of 1992, 174 lithic items were found at the site. Fifty-three of the lithic items are believed to be human-made (Buehler 1992: 63). The possible human-made items include eleven pieces of shatter, 39 flakes or flake fragments, one flake tool, one possible biface segment, and one cobble.

Human-made flakes have certain defining characteristics that are represented in the lithic artifacts at the Burnham site. One of these characteristics is the high frequency of non-

decortication flakes. Of the possible human-made lithic materials at the Burnham site, 87.5% of the flakes are not decortication flakes (Buehler 2003: 209). Low frequencies of primary and secondary decortication flakes are also found among the Burnham site lithics. The flake tool is most likely made from Alibates chert and exhibits multigenerational flaking (Buehler 2003: 222-223). Multigenerational flaking is often the work of nature and not humans. The biface fragment is a triangular and wedge-shaped without use wear (Buehler 2003: 223). It is made from Day Creek chert. The cobble has two flake scars and is considered to be human-made due to its proximity to the bison skull (Buehler 1992: 63).

Most of the cultural lithic material is composed of local materials and is centralized near the bison skeleton. Only one flake is identified as Edwards chert, a non-local chert, while the rest are identified as Day Creek chert (Buehler 1992: 64). Most of the cultural material is also concentrated near the bison skeleton with the highest concentration of cultural lithic material in a 2 m² area around the bison skeleton (Buehler 1992: 65).

The majority of lithic material was determined to be of natural origin. Naturally made lithics were located in all excavated levels both above and below the bison skeleton (Buehler 1992: 65). The natural lithics are dispersed more widely horizontally and vertically than the human made artifacts.

Several radiocarbon dates have been produced for the site. Twenty radiocarbon dates produced dates that range from 10,210± 270 years B.P. to 46,200± 1600 years B.P. (Carter 2003: 103). Various materials were used to date some of the stratigraphic levels at the Burnham site. Charcoal samples have dated the deposits at the site from about 40,000 to almost 10,000 year ago (Wyckoff and Carter 2003: 260). The material used to obtain radiocarbon dates for the

Burnham site also include snail shells, gastropod shells, hackberry seeds, and a charred paw paw log (Carter 2003: 103). The bison bones could not be radiocarbon dated as the bone was too weathered to give an accurate date. Instead, snail shells from the same stratum as the bison skull and flakes produced a radiocarbon date of $31,150 \pm 700$ years ago (Wyckoff and Carter 2003: 249). Radiocarbon dates obtained from snail shells can be unreliable but were used due to the lack of other materials available to produce a radiocarbon date. Other radiocarbon dates include $40,000 \pm 1500$ B.P. from charcoal, $35,840 \pm 850$ B.P. from a gastropod shell, and $31,150 \pm 700$ B.P. on another gastropod shell (Dort, Jr. and Martin 2003: 45). These radiocarbon dates indicate that the site may date from about 40,000 to 10,000 years ago.

Summary

Debate still exists about that identity of the first Americans. The Clovis culture is the first recognized group in the Americas. Sites discovered that date to before Clovis times are labeled pre-Clovis sites. Two pre-Clovis sites have been discovered in northwestern Oklahoma. One site is a mammoth skeleton with spiral fractures that could have been produced naturally in Woods County. No diagnostic artifacts were found with the mammoth. Another possible pre-Clovis site is located in Woodward County. The site consists of an extinct bison skeleton found with possible human-made flakes. These two sites may provide evidence of the first Americans in North America. No cultural affiliation can be determined from the sites.

CHAPTER 4

PALEOINDIAN CULTURES

The earliest known groups of people who occupied North America and the Great Plains regions are classified into the Paleoindian time period. The Paleoindian time period lasted from about 12,000 years ago to 8,000 years ago. It can be identified by various styles of unnotched, lanceolate projectile points used in big game hunting (Hofman 1989a: 25). Various large game species were hunted by the Paleoindian peoples. Large game species include the mammoth, mastodon, bison, caribou, deer. Small game species were also hunted but are less common at Paleoindian archaeological sites. The early Paleoindian time period is dominated by two cultural complexes, the Clovis and Folsom complexes. The later Paleoindian time period exhibits more diversity in cultural material.

Clovis Complex

The Clovis or Llano Complex is recognized as the earliest undisputed cultural complex in the Great Plains. Clovis artifacts were first identified in northwestern New Mexico in 1932 at the Blackwater Draw Locality No. 1. The distinctive Clovis style points, lanceolate points with basal grinding and flutes, were found in situ with mammoth remains (Sellards 1952). Clovis sites range from Mexico and into Canada. Fluted points have been found as far east as the Atlantic coast and west into California (Sellards 1952: 42). The majority of Clovis sites appear to be concentrated in the Great Plains region. The main economic focus of the Clovis peoples

appears to be centered on mammoth hunting based upon the association with Clovis points and mammoth skeletons. Clovis sites generally date from about 12,000 to 10,000 years ago and the disappearance of the Clovis culture tends to coincide with the extinction of the mammoth population.

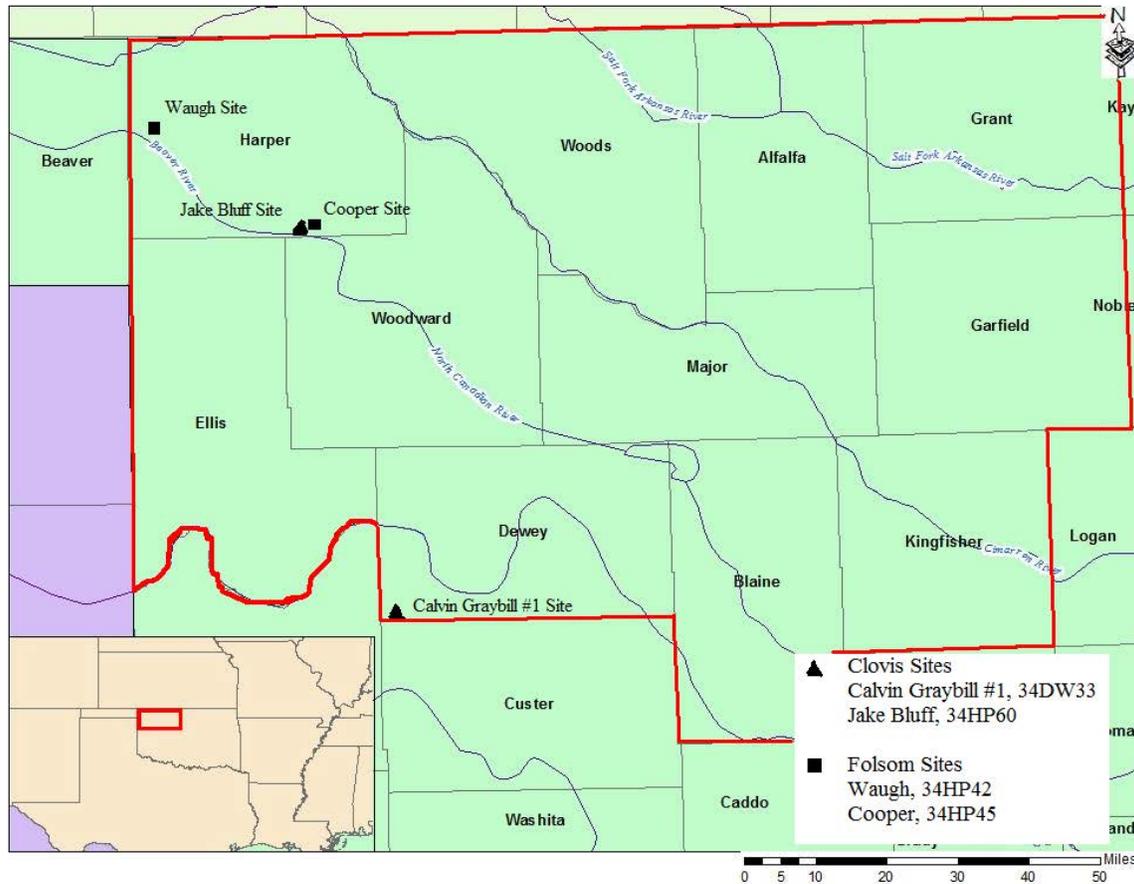


Figure 8. Paleoindian sites in northwestern Oklahoma.

Calvin Graybill #1 Site

One Clovis site is located in northwestern Oklahoma. The Calvin Graybill #1 site, 34DW33, is located in the southwestern corner of Dewey County (Thurmond 1990: 291). It is a single component site consisting of mostly lithic materials and a single tooth fragment. A Clovis

projectile point was discovered by the landowners in the 1950s, and four lithic tools were collected when the site was visited by archaeologists in 1988. The site had been severely disturbed by a former county road, used until the 1940s, running through the site. A gully, probably aided by the runoff from the county road, bisected the site in the 1950s (Thurmond 1990: 291). The site's northwest corner was disturbed from the construction of a U.S. Soil Conservation Service flood control impoundment. Although the site is severely disturbed, much can be learned about the activities occurring at the site.

The artifacts at the Calvin Graybill #1 site represent those of the Paleoindian toolkit. A majority of the tools were made from non-local materials. The projectile point and two of the flakes are made from Alibates agatized dolomite. The other two flakes are made from Ogallala and Dakota quartzite. Two of the flakes were modified into scrapers. One of the scrapers probably had a graver spur that might have been snapped off in use (Thurmond 1990: 296). The other flake was crudely modified into a scraper made from Dakota quartzite. One tool flake is a roughly constructed knife made of Ogallala quartzite. The tools represent the toolkit of a Paleoindian hunter including a projectile point/ knife, scrapers, and knives. The tools all relate to the hunting and processing of animal remains.

No other habitation debris, lithic debitage or burned rock, was discovered at the site. The extensive use and reuse of the Alibates artifacts indicates that it had been a while since the makers of the tools had visited the Alibates quarry when this site was formed (Thurmond 1990: 297). The artifacts at the Calvin Graybill #1 site are typical of those found at other Clovis sites in other parts of the Great Plains.

Jake Bluff Site

The Jake Bluff site, 34HP60, was first discovered in 1994 when bison bones began eroding from a modern gully in Harper County. The site is about 0.4 km from the Cooper site. No testing of the sites was done at that time. Subsequent testing by Leland Bement and Scott Brosowske (1999) and the Oklahoma Archeological Survey (2003) has produced evidence of Clovis activity at the site.

The site is on a bluff overlooking the Beaver (North Canadian) River floodplain. It consists of an accumulation of bison bones on the rim of a paleo-arroyo (Bement and Brosowske 1999: 18). The total faunal accumulation at the site has not been determined, but at least three individuals are represented at the Jake Bluff site. One of the bison skeletons was from a three year-old with molars exhibiting wear similar to bison skeletons at the Cooper site (Bement and Brosowske 1999: 20). This indicates that the kill at Jake Bluff site also occurred in the same late summer/early fall season as the kills at the Cooper site.

The lithic material at the Jake Bluff site is similar to other Paleoindian sites. Three flakes were discovered at the site. Two were from local cherts and the third was produced from Alibates. A flake knife constructed from fine-grained quartzite was uncovered in the bone deposits (Bement and Brosowske 1999). No diagnostic artifacts were initially discovered at the Jake Bluff site. The 2002 Oklahoma Archeological Survey field school at the Jake Bluff site uncovered Clovis points in the bison kill at the site.

Dating at the Jake Bluff Site has been slightly problematic. Examination of the bison bones indicated that these bones represent those of *Bison antiquus*, a species common during the Paleoindian period. Radiocarbon testing of the bones cannot be conducted as the bone has been

contaminated (Bement and Brosowske 1999: 21). Soil stratigraphy matches that of the Cooper site as the paleo-arroyo is in the same landscape setting at both sites. One absolute date has been provided during the 2002 field school at the Jake Bluff site. The site dates to 10,750 years ago (Bement 2003: 2). This places the date of the site at the time periods when Clovis hunters were beginning to hunt bison rather than mammoths.

The Jake Bluff site is an important discovery relating to the adaptations on the Southern Plains by Paleoindian peoples. Clovis points are usually associated with mammoth skeletons and few documented sites exist with Clovis points in association with a bison kill. The Jake Bluff site represents the beginning of bison hunting by Clovis peoples as evidenced by the Clovis points present at the bison kill. This is the first evidence of bison hunting by Clovis peoples in northwestern Oklahoma. These sites provide insight into how Paleoindian peoples adapted to the extinction of the mammoth population.

Folsom Complex

Bison hunters on the Great Plains were first discovered in New Mexico near the town of Folsom. Large bison bones, associated with an extinct form of bison (*B. bison antiquus*), were found with projectile points in situ at the site. George McJunkin, a cowboy on the Crowfoot Ranch, is credited with the initial discovery of the Folsom site. McJunkin discovered the site after a flood in Wild Horse Arroyo in 1908 (Meltzer 2006: 34). Excavations at the Folsom site did not begin until May of 1926 without the expectation of finding evidence of human activity at the site but with the understanding the possibility for finding evidence of human activity at the Folsom site. The first Folsom point was discovered in July of 1926, but it was not found in situ

(Meltzer 2006: 35). A Folsom projectile point found in situ was uncovered in August of 1927. Archaeological work continued at the Folsom site through 1928. The projectile point, named Folsom points, became the identifying characteristic for numerous paleoindian sites throughout North America.

The Folsom locality became the name of the point type associated with the extinct bison bones (Meltzer 2006:1). The Folsom point has several diagnostic characteristics. The diagnostic point style indicative of Folsom points is the lanceolate projectile point with fluting and a concave base (Hofman and Graham 1998: 99). Some Folsom points, however, do not exhibit fluting.

Folsom sites range across the Great Plains. They are distributed from Montana and North Dakota in the north and into southern Texas (Hofman 1989a: 34). Sites outside of the Great Plains have been found, but they are not usually well reported. Folsom sites are limited in the west by the Rocky Mountains. The eastern boundary of the Folsom complex is not well known. Surface finds of Folsom points are reported in Iowa, Missouri, Illinois, and Wisconsin (Hofman and Graham 1998: 97). Folsom sites are located mainly in the Great Plains due to the subsistence patterns of the Folsom peoples.

The subsistence of Folsom peoples consisted of hunting and gathering. Hunting activities revolved mostly around bison. Folsom points have been found in association with an extinct species of bison, *Bison antiquus*. Bison represents most of the faunal remains at Folsom sites (Hofman 1989a: 36). Other mammals were also utilized by Folsom peoples. The large numbers of bison represented at Folsom sites indicates that the main emphasis was on the hunting of bison.

Prior to 1991, there were no excavated Folsom sites in the state of Oklahoma. Information about the Paleoindian time period in Oklahoma has mostly come from surface finds. Surface finds of Folsom artifacts are reported from all parts of the state except the southeast corner of the state (Gettys 1984: 104). Many of the surface finds consist of only isolated projectile points. Isolated Folsom projectile points were found in Dewey, Ellis, Harper, Major, Woods, and Woodward counties. These materials are held mainly in private collections. One isolated Folsom point fragment was found in either Woods or Woodward County and was made from Alibates agatized dolomite (Neel and Burnham 1986: 5). Another Folsom point fragment is made from a tan quartzite and was discovered in Dewey County (Wyckoff 1982: 13). A third Folsom point was discovered near an excavated Folsom site in Harper County (Hofman and Carter 1991: 36).

Some Paleoindian surface sites in northwestern Oklahoma have produced more than one projectile point. These include the Payne Canyon in Blaine County, the Riddle locality in Ellis County, the Harmon locality also in Ellis County, and the Stegelman site in Kingfisher County.

Payne Canyon is an important locality for Paleoindian remains. It is located about 31 miles north of Cedar Creek that drains into the Cimarron River (Hofman 1992:74). Material collected from the canyon includes Folsom projectile points as well as other Paleoindian artifacts. Folsom artifacts include projectile points and fragments of points, a channel flake, a preform, unifacial tools, and spurred end scrapers (Hofman 1992: 74). The material used for the Folsom assemblages in Payne canyon differs from that of other Paleoindian artifacts. Most of the Folsom artifacts produced from Alibates chert (Hofman 1992: 74). Bison remains have been found in the canyon, but the available skeletal remains represent the modern form of bison.

The Riddle locality, Harmon locality, and the Stegelman site contain only fragmented Folsom points. The Riddle locality is on a tributary of the Canadian River. Two Folsom point fragments are documented from this location. One point fragment is made from Alibates and the other is of an unknown lithic material (Hofman 1992: 87). The Harmon locality contains three Folsom point fragments (Hofman 1991: 41). The Stegelman site is located in Kingfisher County near Uncle John Creek. It is believed that at least seven broken Folsom points have been recovered from the site. Three of the four known Folsom points are made from Edwards chert with the fourth being produced from Alibates (Hofman 1992: 87). These two locations provided Folsom surface material but more work is needed to know more about the sites' usage.

Two Folsom sites and one Paleoindian with unknown cultural affiliations located in northwestern Oklahoma have been excavated. All three of the sites are located in Harper County. The Waugh site is the first excavated Folsom site in the state of Oklahoma. The other location, the Cooper site, was discovered soon after the discovery of the Waugh site. The Jake Bluff site is located very close to the Cooper site and has had limited excavations conducted at the site.

Waugh Site

Discovery of the Waugh site, 34HP42, occurred in January of 1991 with the unearthing of a Folsom point in association with the remains of a *B. bison antiquus*. The site is situated along a tributary of Buffalo Creek located in the Cimarron River basin (Hofman and Carter 1991: 24). The full extent of the bone bed at the site is unknown. The part of the site with in situ bison remains covers an area of 8 by 10 meters (Hofman et al. 1992: 23). An MNI for the

exposed portion of the site is five with only one bone exhibiting cut marks. The bones were buried soon after the activity of the site as indicated by the several articulated components, lack of carnivore gnawing, and limited surface bone weathering (Hofman et al. 1992: 23). No bones could be used to determine the season of the kill. Four radiocarbon samples were used to procure dates, and three of them did provide radiocarbon dates. Two samples from a hearth at the site produced an average calibrated date of $10,390 \pm 160$ BP (Hofman 1995). The third sample was taken from some of the bison bone. It produced a date of 9160 ± 160 BP (CAMS 16078) but is not counted as very accurate (Hill and Hofman 1997: 65). The bone sample used for the radiocarbon date only contained a marginal amount of chemical agents needed to produce an accurate sample.

The lithic assemblage of the Waugh site is important as it is the first Folsom site to have Alibates agatized dolomite, Niobarara Jasper, and Edwards chert used at the site. Lithic materials include two projectile points, two scrapers, and some flakes. The Folsom points consisted of one made from Alibates and one from Edwards chert (Hofman et al. 1992: 24). The scrapers were found on a terrace above the bone bed which is probably the area where processing activities took place. One of the scrapers is composed of Niobarara Jasper (Hoffman and Carter 1991: 35). Several of the flakes consist of Edwards chert.

Cooper Site

The Waugh site is similar in setting to that of the Cooper site. The Cooper site, 34HP45, was discovered after the land was purchased by the Oklahoma Department of Wildlife Conservation in 1992 (Bement and Brosowske 1999: 31). The site is located on a ridge above the floodplain of the North Canadian River (Carter and Bement 1995: 109). In the spring of

1993, a Folsom point was unearthed in association with *B. bison antiquus* bones. Initial excavations at the site began in April and May of 1993 (Bement 1994: 7). Excavations exposed three separate bison kills at the Cooper site as well as various lithic materials.

The three bison kills at the Cooper site all contain evidence of Folsom peoples in each kill. All bison kill episodes occurred in the late summer or early fall. The original size of each kill cannot be known. The meandering North Canadian River and erosion in the gully where the site is located signifies that between 50 and 75% of the bison bones have been lost at the site (Bement 1999: 52). Each of the three kills show butchering evidence on the parts of the bison which contain the highest amounts of food.

The upper kill contains 972 identifiable bones and has a MNI of 29 (Bement 1999: 54). Cut marks, retrieval of projectile points, and the presence of resharpening flakes all indicate that the bison was processed at the site. The upper and middle bison kills are separated by 20 cm of sterile sediment (Bement 1994: 7). A clear stratigraphic separation is apparent between the upper and lower bison kill episodes.

The bison bones in the middle kill exhibit signs of being trampled. An MNI of 29 is also represented in the middle kill episode. The most striking feature of the middle kill was the discovery of a bison skull taken from the lower kill with a red, zigzag lightning bolt design painted on the skull (Bement et al. 1997). The painted skull is the first evidence of non-mortuary use of art in ritual in the New World.

The middle and lower bison kills are not as stratigraphically separate as between the upper and middle bison kills (Bement 1999: 101). The lower and middle kills occurred within a

relatively short time from each other. The bones of the lower kill were highly trampled (Bement 1999: 101). Seven Folsom projectile points were recovered from the lower kill.

Flaked tools at the Cooper site include whole and fragmented Folsom points, flake knives, and resharpening flakes. Tools used at the Cooper site exhibit signs of being extremely worn when resharpening took place (Brosowske and Bement 1997: 100). Wear on the tools recovered resembles the type of wear obtained during the removal and meat stripping of bison processing.

Lithic material at the Cooper site provides significant information about the spatial patterns of the Folsom peoples. The lithic material at the Cooper site comes from three sources including Edwards Plateau chert, Alibates agatized dolomite, and Niobrara Jasper. Distances from the lithic sources to the Cooper site range from 350 km, 16 km, and 330 km, respectively (Bement 1995: 61). Each kill has a different percentage of lithic sources at the site. The upper kill contains projectile points made from Alibates and Edwards chert. The only points exhibiting reworking are made from Alibates (Bement 1995: 61). The middle kill projectile points were made from Edwards chert only. One projectile point was reworked from a broken point that was turned upside down when reworked (Bement 1995: 61). The third kill has twelve projectile points and point fragments. One point is constructed from Niobrara Jasper, nine from Alibates, and two of Edwards chert. The Niobrara Jasper point was reworked, as well as one Edwards point and two of the six Alibates that were not too deteriorated to determine evidence of reworking (Bement 1995: 61-62). The lower kill represents a relatively abundant lithic supply, the middle kill is highly depleted, and the upper kill is between the two other kills based upon the amount of reworking tools exhibited in each kill (Bement 1995: 62). The seasonal use of the

Cooper site suggests that the peoples utilized the site during a specific season regardless of where they had been or the state of their lithic tool kits.

Late Paleoindian Period

The Late Paleoindian period is dated from roughly 10,000- 8,000 years ago on the Southern Great Plains. The Southern Great Plains was occupied by a series of cultural groups known collectively as the Plano complex. The Plano peoples are characterized by their use of unfluted, lanceolate projectile points with a continuation of the economic focus on bison hunting similar to Folsom peoples (Hofman and Graham 1998: 103). Several projectile point types are associated with the Plano complex including Agate Basin, Allen, Angostura, Eden, Frederick, Hell Gap, Milnesand, Plainview, and Scottsbluff.

Little information is known about late Paleoindian groups in northwestern Oklahoma. Several isolated finds of late Paleoindian materials have been reported in Dewey, Woods, and Woodward Counties. Isolated projectile point types include one Eden point in Dewey County (Thurmond 1991), a Hell Gap point in Woods County (Wyckoff 1982: 13), two Plainview projectile points or point fragments as well as a Plainview *golondrina* (a Plainview point named for its deep basal notch and unique flaring ears) (Neel and Burnham 1986) were located in Woodward County. A Plainview-like point was found near Fort Supply, Woodward County, by a collector (Bement and Brosowske 1999: 6). These isolated finds reveal little about the subsistence and social patterns of the late Paleoindian peoples.

One site in northwestern Oklahoma provides multiple examples of late Paleoindian artifacts. Farra Canyon in southwestern Blaine County has formed around a small incised stream

that flows southward into Deer Creek. Collecting by Roy Patterson and Tim Shantz, avocational archaeologists, has produced projectile points from the Paleoindian time period through the Late Prehistoric period as well as non-diagnostic tools, and debitage (Banks 2003: 68). The late Paleoindian projectile point styles include Plainview, Scottsbluff, Allen, and Meserve types and are made from exotic materials (Banks et al. 1994: 2). The projectile points are constructed from Alibates/ Tecovas jasper, Edwards chert, and other exotic materials. Hunting activities took place in the canyon perhaps by short-term occupants. Two Hell Gap projectile points from Woods County and four from Blaine County have been recovered (Beaver 1999: 9).

Summary

Paleoindian cultures in the Southern Great Plains focused primarily on big game hunting. Evidence of Clovis occupation in northwestern Oklahoma is limited but gradually increasing. One highly disturbed site provides evidence for Clovis peoples in Dewey County, Oklahoma. The best evidence for Clovis occupation is the Jake Bluff site which is a bison kill site produced by Clovis peoples. More evidence exists for Folsom occupations in northwest Oklahoma. This is probably due more to the differential preservation and visibility of Folsom sites over Clovis sites rather than the population increases or changes in land-use patterns (Hofman 1991: 47). Excavations in the early 1990s have exposed two Folsom kill sites in Harper County, Oklahoma providing more information about Folsom land-use patterns. Late Paleoindian sites are represented by isolated finds centered on bison hunting.

CHAPTER 5

ARCHAIC PERIOD

The Archaic period in Oklahoma is a time of change and represents the longest era identified for western Oklahoma. From 6000 B.C. to 1 A.D., prehistoric peoples gradually began developing different lifestyles. Prehistoric peoples in the Archaic period practiced a hunter-gatherer subsistence lifestyle and maintained a seasonal round of camps. Occupants of Oklahoma began utilizing more intensely plant and vegetal matter more than in the Paleoindian period. This increasingly led to a more sedentary lifestyle than previously exhibited in Oklahoma as seen with the more intensive use of local resources. Environmental changes at the end of the last glaciation may have led to the more intensive foraging practices of the peoples in northwest Oklahoma.

The Archaic period is divided into three temporal subdivisions, Early, Middle, and Late, in the Southern Great Plains. The Early Archaic lasted generally from 8000 to 5000 B.P. and coincides with the Altithermal environmental changes. The Middle Archaic dates from about 5000 to 3000 B.P., and the Late Archaic dates from 3000 B.P. to about 1 A.D. The Archaic period lasted longer in the Southern Great Plains than in other areas of North America (Hofman 1989a: 45).

Characteristics of the Archaic peoples in Oklahoma are similar to the Archaic peoples throughout the Southern Plains. Hofman (1989a: 46) describes five characteristics of Archaic peoples on the Southern Plains: “seasonally varied economies; flexible group structure with periods of aggregation and dispersal; seasonally variable needs such as fuel, shelter, clothing; a

variety of site types which result from diverse economic, social, and maintenance activities; and, a variety of alternative strategies for coping with seasonal, or yearly, economic shortfalls or windfalls.” Peoples during the Archaic period had a seasonal round of camps and exploited a wide variety of local plant and animal species. Archaic peoples were less nomadic than Paleoindian peoples due to the reliance upon the seasonal availability of resources (Wyckoff and Brooks 1983: 15).

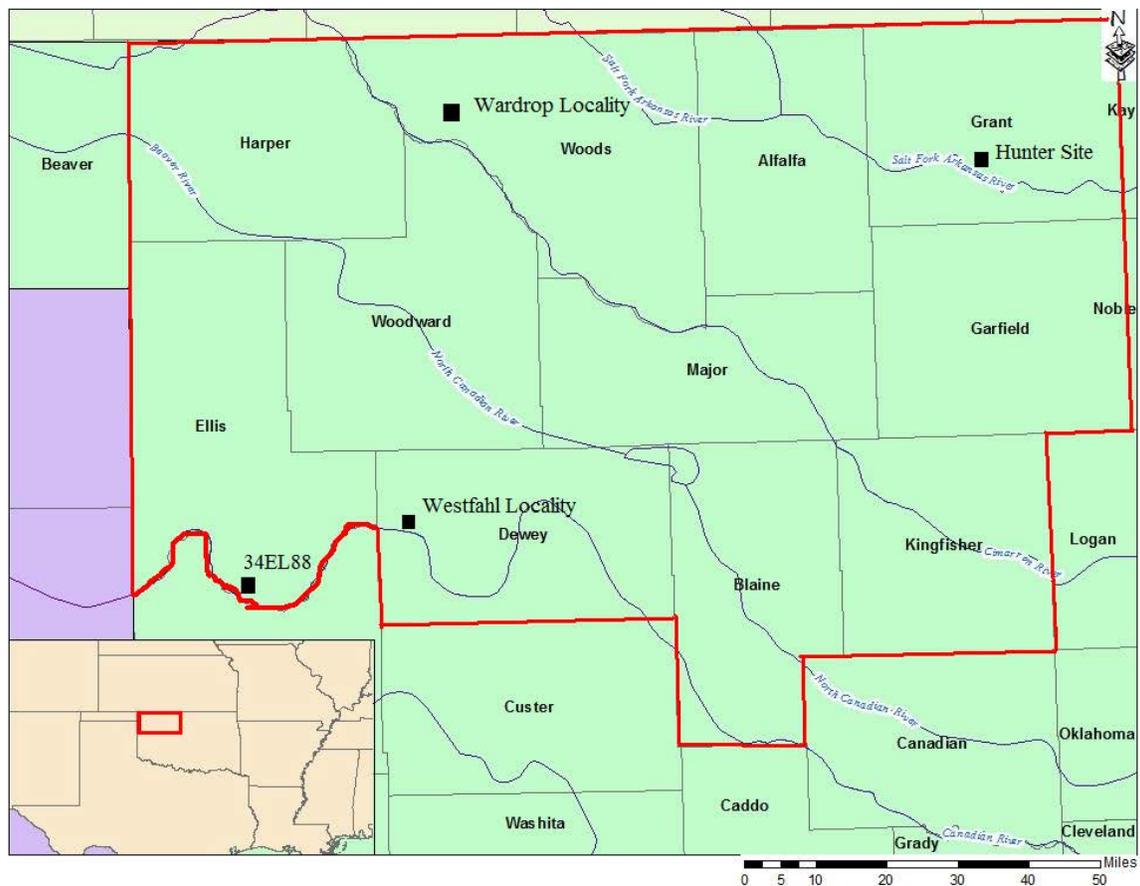


Figure 9. Calf Creek sites in northwestern and north-central Oklahoma.

Lithic materials of Archaic peoples changed from the previous Paleoindian period. Local quartzite for tool manufacture features predominately at Archaic sites. This may be related to its

more steady availability rather than as an indication of Archaic sites. Quartzite usage occurs throughout more than just the Archaic period and should not be the sole designation for classifying a site as Archaic (Hughes 1984: 115). Lithic tools produced by Archaic peoples include a variety of stemmed, corner-notched, and side-notched dart points; grinding stones; hammerstones; atlatl weights; graters; scrapers; and choppers.

Environmental and climatic changes during the Archaic period may have brought about the cultural changes observed during that period. Early Archaic sites are lacking in northwestern Oklahoma which may be related to the Altithermal climate episode.

The Altithermal (Antevs 1955) represents the time frame from about 8,000 to 5,000 B.P. The climate across the Southern Plains became drier and warmer. Grasslands expanded eastward replacing the deciduous forests in Missouri, Illinois, Indiana, and Iowa (Wyckoff and Brooks 1983: 262). Few studies have taken place in western Oklahoma, but the area was most likely more arid than present. Soil deposits in Oklahoma indicate that conditions during the Altithermal were dry with decreased vegetation cover which led to wind erosion and soil deflation (Duncan 1993: 96). Severe drought conditions were common on the Southern Plains during the Altithermal. Erosion during the Altithermal caused mixing of archaeological material at Archaic and multi-component sites. Climate conditions began to turn into modern conditions about 4,000 years ago.

Early archaeological theories about the Altithermal predicted that Early Archaic sites were absent from the archaeological record on the Southern Plains due to abandonment of the region. Mulloy (1952) stated that a cultural hiatus may have occurred but may not be related to climate change. Other archaeologists did not perceive a cultural hiatus of the Plains during the

Altithermal. Peoples of the Plains adapted to the drier conditions similarly to peoples occupying the Great Basin. Hurt (1966) suggests that large game animals were less prevalent on the Plains at this time, and peoples inhabiting the Plains region would adapt by developing a more diversified subsistence strategies.

The Altithermal climate changes are probably the cause for the adaptive strategies used by Archaic peoples. More research is needed to understand the relationship between the Altithermal and human populations in northwestern Oklahoma (Hofman 1989a: 55). More Archaic archaeological sites have been discovered in eastern Oklahoma than for the western part of the state. It is not known whether this is the result of more archaeological surveys being conducted in the east or due to the actual representation of the occupation of western Oklahoma during the Archaic (Wyckoff and Brooks 1983: 263). Early Archaic sites appear to be absent in northwestern Oklahoma but have been recorded in other areas of the Southern Plains. This may be due to the erosion of these sites leaving them deeply buried (Reeves 1973: 1223-1246). Antevs (1955: 328-331) notes that in areas with drought followed by normal conditions differential preservation of archaeological materials occurred. Middle Archaic sites are represented by Calf Creek sites and isolated finds. Late Archaic sites are represented by isolated finds of projectile points. Occupation of northwestern Oklahoma continued throughout the Archaic period despite the harsh climate changes of the Altithermal.

The Lawton Aspect

One of the earliest attempts to categorize Archaic period materials was made by James Shaeffer (1966). Shaeffer labeled the cultural material primarily composed of quartzite as the

Lawton aspect. The Lawton aspect is based primarily on the combination of tool forms and the use of quartzite (Shaeffer 1966: 62). It incorporates all regional variations of quartzite usage from late- Paleoindian to the pottery horizons. Sites are located on ridge tops and just below ridge crests. The Lawton aspect is divided into three temporal phases. Phase I is characterized by the use of hammerstones, choppers, curved knives, and flint Plainview and Milnesand points (Shaeffer 1966: 63). Phase II artifacts are differentiated from Phase I by their smaller size and the larger variety of tools. Phase III tool forms remain similar to previous phases but are produced mainly from flint rather than quartzite.

The Lawton aspect is divided into two regional foci. The Little River focus is the eastern regional focus of the Lawton aspect. It is centered in Cleveland County along the Little River (Shaeffer 1966: 64). Cultural artifacts of the Little River focus include a heavy knife, thin and wedge-shaped manos, quartzite points, some Paleoindian points, and scraper-planes. The western focus is called the Altus focus and is concentrated around Lake Altus (Shaeffer 1966: 65). Artifacts associated with the Altus focus include boatstones, flint points associated with the Eastern Archaic, oval knives, think manos, and a few Paleoindian point styles.

The Lawton aspect is not used as a diagnostic of the Archaic period in Oklahoma. The basic diagnostic object of the Lawton aspect is the use of quartzite. Since the usage of quartzite cannot be considered a diagnostic tool, the Lawton aspect is not used as a classification category of Archaic sites by archaeologists since its original definition.

Calf Creek Horizon

The Calf Creek horizon is an Archaic classification for cultural material found throughout Arkansas, Missouri, Oklahoma, Kansas, and Texas. A horizon is a series of cultural traits that are exhibited across broad spaces and may have “considerable temporal depth” (Willey and Phillips 1958: 33). The distinctive feature of Calf Creek sites is a large, ovate, basally notched, bifacial projectile point/ or knife (Thurmond and Wyckoff 1999: 231). Most of the Calf Creek projectile point/ knives (PP/K) exhibit signs of being thermally altered. Calf Creek PP/Ks almost always exhibit some form of resharpening or reworking (Duncan 1993: 90). The PP/Ks are also commonly reworked into other tools such as scrapers, knives, or blades once they are broken. Other lithic tools utilized by Calf Creek peoples include circular flake scrapers and “practice” notching pieces. Calf Creek tools and points generally served as multi-purpose tools as determined by the resharpening patterns and edge wear analysis of the tools (Duncan 1993: 132).

Calf Creek horizon is considered to be Middle Archaic. Calf Creek sites date from 8500 to 4200 years ago. One radiocarbon date from a Calf Creek site in Muskogee County, Oklahoma revealed the site to be of an age of 5730± 160 B.P. (Wyckoff and Woodward 1988: 4). Most of the Calf Creek dates tend to cluster at around 5100 to 4500 years ago.

Calf Creek sites in northwestern Oklahoma are limited to isolated finds west of and including Grant County. This is probably the result from the poor preservation or exposure of Calf Creek aged deposits in the area (Wyckoff 1993: 199).

The Westfahl Locality

The Westfahl locality contains isolated finds collected by Clarence Westfahl. Five Calf Creek artifacts were collected in northwestern Dewey County in the 1950s and 1960s. Four of the five artifacts collected are highly reworked Calf Creek PP/Ks (Thurmond and Wyckoff 1999: 237). Two of the PP/Ks were constructed from local, heat-treated Ogallala quartzite. One PP/K consists of Alibates agatized dolomite which may have come from local sources. The fourth PP/K is composed from Florence (Kay County) chert from the southern Flint Hills. The fifth Calf Creek artifact is a segment of a notched biface thinning flake made from Alibates agatized dolomite.

The Wardrop Locality

Another site with isolated finds of Calf Creek artifacts in northwestern Oklahoma is the Wardrop locality in Woods County. Nena Wardrop and Eva Lou Milledge collected prehistoric artifacts along Sand Creek. Eight of the artifacts are Calf Creek. All consist of Day Creek chert. Some of the artifacts include a complete Calf Creek PP/K, two gouge-like tools (one may be a Clear Fork type), two sections of bifaces, and three bifaces that might be Calf Creek preforms (Wyckoff 1982, Thurmond and Wyckoff 1999: 238).

Grant County Sites

Calf Creek sites are located in north-central Oklahoma as well as northwestern Oklahoma. Grant and Kay Counties have a combined total of twenty-nine Calf Creek sites

(Wyckoff 1993: 196). Two of the Calf Creek sites in Grant County are located along Bluff Creek. One site, 34GT22, is located about 350 meters south of Bluff Creek and contains one nearly complete Calf Creek point as well as a varied lithic scatter, bone, and sandstone artifacts (Sullivan 1993: 43). A second Calf Creek site in Grant County is located about 75 km northwest of 34GT22. The site is also near Bluff Creek. It consists of one barb and one base of a Calf Creek point as well as scrapers and bifaces (Sullivan 1993: 43). The site appears to be a more temporary site than 34GT22.

Another Calf Creek site in Grant County was the site of hide processing by Calf Creek peoples. The Hunter site, 34GT6, is located 8 km northwest of Lamont and 250 m east of Deadman Creek (Brooks 1993: 54). Over half of the artifacts at the Hunter site belong to the Calf Creek horizon. Calf Creek artifacts consist of mainly scrapers made from Florence A chert and Calf Creek projectile points but in smaller quantities than the scrapers (Brooks 1993: 54). Scrapers account for 58% of the total Calf Creek artifacts at the Hunter site (Brooks 1993: 87). The site was the location for the processing of hides as determined by the absence of other major tool groupings other than the scraping tools used for the processing of hides.

Ellis County Sites

One Calf Creek site, 34EL88, was identified in Ellis County during a survey of the Packsaddle Wildlife Management Area. The site is located on a high ridge overlooking an intermittent stream to the southeast (Morgan 1999: 66). Archaeological materials found at the site include one Calf Creek projectile point made from Ogallala quartzite, one Alibates biface, one petrified wood core, and 10 flakes from Ogallala quartzite and Alibates (Morgan 1999: 66).

Unaffiliated Archaic Sites

Some Archaic sites can not be assigned a cultural affiliation. Archaic period or possible Archaic period sites are located in Blaine, Ellis, Garfield, Grant, Harper, Kingfisher, Major, and Woods Counties. These sites have been identified as sites with possible intact deposits but need more archaeological investigations to gain more information about how the site was utilized.

Blaine County

Three sites in Blaine County, the Scott-Sherry (34BL1), Shantz #2 (34BL33), and Carman (34BL46), have possible Archaic occupations (Wyckoff and Brooks 1983: 152-153). One site, 34BL7, is an Archaic camp with a possible midden and eroding habitation features. Farra Canyon in Blaine County continued to be utilized through the Archaic period. A total of eight Archaic and eighty Late Archaic/Woodland projectile points have been found in the canyon. The Archaic points include one Calf Creek, twenty Ellis, fourteen Ensor, eight Gary, one Travis, eight Williams, four Kent, three Lange, sixteen Marcos, six Marshall, one Morrill, three Palmillas, one Steuben, and three Yarbrough (Banks 1996: 61). Utilization of the canyon during the early and middle Archaic appears to have decreased, based upon the drop in frequency of projectile points, and may be due to climate change during the Altithermal.

Ellis County

One site is identified by Wyckoff and Brooks (1983: 111) an Archaic or Woodland site. The Berryman #2 site (34EL6) is an open camp with a possible village. Preservation is considered fair.

Garfield County

Two sites were identified by Wyckoff and Brooks (1983: 118) as being possible Archaic sites. The two sites, 34GF2 and 34GF44, are camp sites with possible intact deposits.

Grant County

One site in Grant County, the Mary Ann Smith site (34GT36), is located on the north slope of a high terrace south of the Salt Fork of the Arkansas River. The river is currently 1 ¼ miles north of the site. The material collected that indicates a Middle to Late Archaic occupation includes a Frio point, a Gary point, and a dart point tip fragment (Drass 2001: 118). Other materials discovered at the site consist of an end scraper, a biface fragment, flakes, quartz debris, sandstone fragments, fire-cracked Ogallala quartzite, limestone cobbles, burned bone fragments, and a burned mussel shell fragment.

Archaeological work conducted along the Salt Fork of the Arkansas River added several new Archaic sites. The Porter site, 34GT3, may contain a Late Archaic/Woodland occupation (Drass 2001: 90). The Hobbs site, 34GT4, contains an Archaic and Late Prehistoric occupation in two areas of the site. The site is located to the east of Polecat Creek, and Archaic materials

include a dart point midsection, flakes, scrapers, a mano fragment, and a Gary point (Drass 2001: 98). A third site, 34GT8, has evidence of occupations dating to the Late Archaic, Woodland, and Late Prehistoric. Archaic materials at the site consist of one possible Calf Creek barb fragment (Drass 2001: 103).

Harper County

Two sites were identified as having possible Archaic period deposits in Harper County (Wyckoff and Brooks 1983: 113-114). Doby Springs, 34HP1, is a site with occupations during possibly the Archaic, Plains Village, and the Protohistoric. The site is a large camp around a spring (Wyckoff and Brooks 1983: 113). The Chase site, 34HP28, is another possible well-preserved Archaic camp.

Patsy's Cliff (34HP76), an Archaic site, was initially located during a pedestrian survey (Bement et al. 2002) in Harper County. Further archaeological testing was conducted to determine the site's ability to be nominated for the National Register of Historic Places (McKay et al. 2004). The site is located on an ancient stream terrace that has eroded historically into a ridge toe. Four test units were excavated. Artifacts collected from these test pits include charcoal samples, 30 chipped stone flakes, four projectile points, and 29 animal bone fragments. The four projectile points are one Gary point, one Shadid-style point, one Fresno point, and a Scallorn point (McKay et al. 2004: 27). The Shadid-style point and the Fresno point are indicative of the Late Prehistoric period and may have eroded from a site (34HP79) further upstream from Patsy's Cliff. The lithic materials consists primarily of Day Creek dolomite, but other lithic sources include Dakota/Tesesquite quartzites, Ogallala quartzite, sandstone, silicified

wood, silicified Dolomite, ferric quartzite, and unnamed cherts (McKay et al. 2004: 30). The faunal remains consist of bison bone fragments, white tailed deer fragments, and unidentified large mammal bone fragments. The Patsy's Cliff site proved to be not as valuable as first believed. Most of the site had eroded downstream (McKay et al. 2004: 32). The Late Prehistoric artifacts found at the site were most likely deposits from another known site further upstream from Patsy's Cliff.

Kingfisher County

One site in Kingfisher County was identified as an Archaic site by Wyckoff and Brooks (1983: 172). The Stegleman site (34KG2) is a Paleo-Indian and Archaic site. The importance of this site is the opportunity to study the geology of the site for clues to past climates (Wyckoff and Brooks 1983: 172).

Major County

One Archaic site in Major County is the Barnum site (34MJ3) (Wyckoff and Brooks 1983: 123). The site is a possibly well preserved camp dating to about 4,000 years ago.

Woods County

One site in Woods County was identified as a multi-component site by Wyckoff and Brooks (1983: 130). The Nelson site, 34WO57, was primarily a Late Prehistoric site, but an

Archaic occupation is represented by eight corner-notched projectile points. The Archaic projectile points were collected by Lois Albert. Of the projectile points found at the site, four are Marcos points, one is Morhiss-like, another is Williams-like, and one is Lange-like (Drass 1999: 152). One complete Meserve point was found at the site. A Late Archaic/Woodland period occupation is indicated by the presence of the corner-notched projectile points. The Meserve point might also represent an Early Archaic occupation, but the point may have been brought to the site later.

Summary

Information about the Archaic period in Oklahoma has developed rapidly with the identification of Calf Creek sites. It was initially believed that climate change brought about the depopulation of the Southern Plains during the Archaic. This has been proven false by the presence of Middle Archaic sites in northwestern Oklahoma. Previous climate studies have indicated that climate changes during the Altithermal may have deeply buried or eroded the deposits containing sites from the Early Archaic. No other cultures can be identified for the Archaic period. Problems occur with dating Late Archaic and Woodland sites as the two periods share many characteristics. More archaeological work is needed to differentiate Late Archaic sites from Woodland period sites.

CHAPTER 6

THE WOODLAND PERIOD

The Woodland period in Oklahoma is one of the least understood time periods in the state. Dates for this period range from A.D. 1 to A.D. 700 (Wyckoff and Brooks 1983: 16). During this period, peoples adopted a more sedentary farming lifestyle. Pottery and arrow projectile points are indicators of the Woodland period. Other diagnostic artifacts for the Woodland period include corner-notched dart points, shell disc beads, burials in mounds or ossuaries, and an increased frequency of grinding stones (Vehik 1984: 175). Problems in identifying Woodland period sites exist because many diagnostic artifacts occur in early and/or later time periods, and sites are absent or infrequent. Few sites have been excavated or well dated (Wyckoff and Brooks 1983: 264). Woodland sites are not well documented and are hard to distinguish from other Late Prehistoric sites.

Little is understood about the appearance of the Woodland period in Oklahoma. Two main theories exist to explain the origin of Woodland cultures (Vehik 1984). One theory is the development of Woodland cultures from Woodland groups in northeastern Kansas with Hopewellian influences. The other theory has three possibilities. It is that Woodland cultures in Oklahoma developed from peoples moving from the northeast and southeast, Oklahoma peoples adopting the Woodland traits from the northeast or the southeast, or a combination of the two (Wyckoff and Brooks 1983: 264). Most Woodland archaeological material in Oklahoma indicates that northeastern Woodland cultures influenced Oklahoma peoples more than Woodland cultures in the southeast.

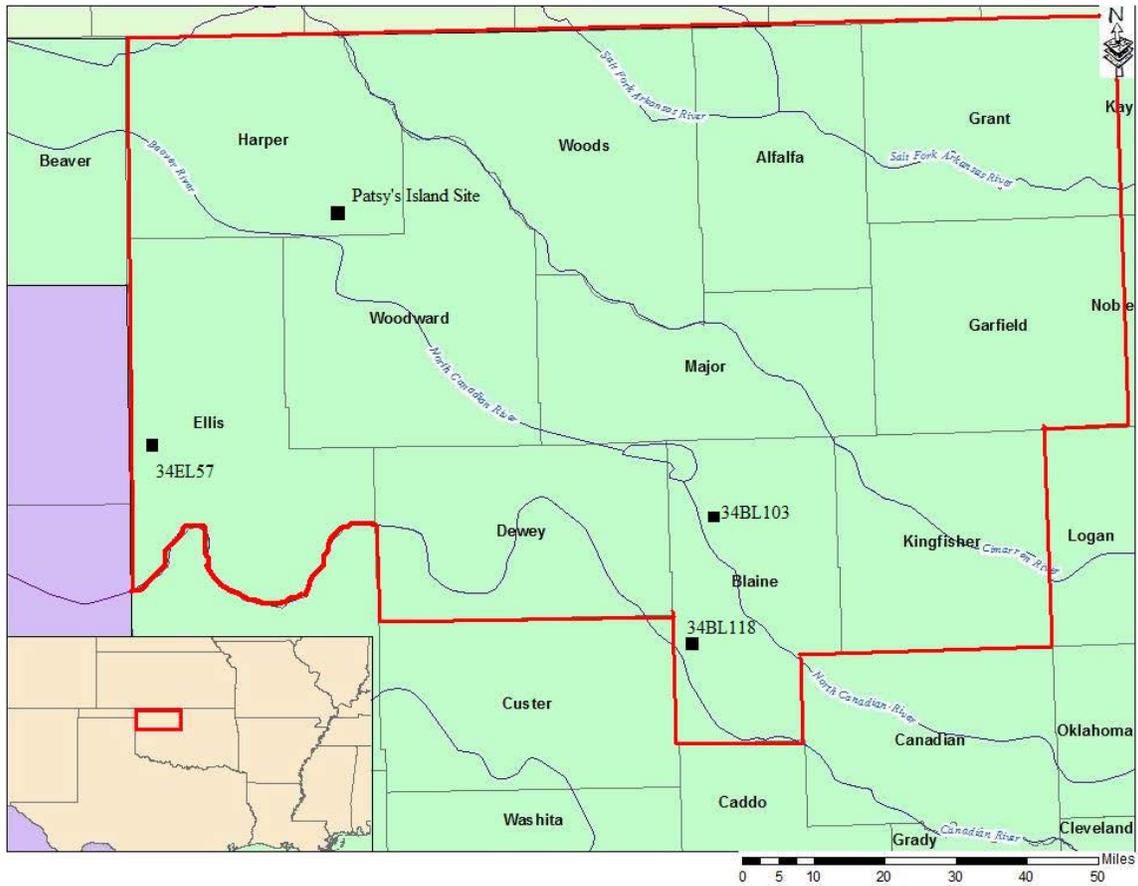


Figure 10. Woodland sites in northwestern Oklahoma.

Archaeologists with the Oklahoma Archeological Survey compiled information about archaeological resources across the state as known in 1981. Several sites were identified as possible Woodland occupations. The issues with identifying Woodland occupations in Oklahoma can be seen in this listing. Wyckoff and Brooks (1983) list two possible Woodland sites in Ellis County, one Archaic or Woodland site in Garfield County, one Woodland and two Woodland or Plains Village sites in Grant County, one Woodland or Plains Village site in both Woods and Blaine Counties, and one possible Woodland site in Dewey County.

Since 1981, more Woodland archaeological sites have been discovered in northwestern Oklahoma. One Woodland site was identified in Harper County that had further study conducted

at the site (Bement et al. 2002, McKay et al. 2004). Blaine County has at least three possible Woodland sites (Bartlett 2000, Drass 2003, Banks 1996). One Woodland site was examined in Ellis County (Drass and Turner 1989).

Blaine County

34BL103

Archaeological investigations in 1997 by the Oklahoma Highway Archaeological Survey Program of the site 34BL103 produced archaeological material dating from the Woodland and the Late Prehistoric periods. The site is located along a tributary of Salt Creek in Blaine County. Artifact collections from the site are the result of extensive surface collecting, the excavation of four 1x1 meter test units, and three shovel test pits (Bartlett 2000: 8). Material recovered from the site includes chipped stone tools, debitage, a mano, a metate, a bone tool, a pottery sherd, fractured quartzite cobbles, and mudstone. A general surface collection from the site produced two bifaces of Ogallala quartzite, four endscrapers with three produced from Alibates and one from Florence A chert, 35 pieces of debitage, and one core (Bartlett 2000: 13). Surface collecting in the northern part of the site produced one corner notched arrow point constructed from Alibates and one stemmed corner-notched biface fragment composed of an unknown quartzite.

Further surveying of the site produced more artifacts from the south collection area. These artifacts include a corner-notched arrow point from Ogallala quartzite, three biface fragments, three end scrapers, four modified flakes, one hammerstone, hundreds of flakes and debitage, and one bone tempered pottery sherd (Bartlett 2000: 21-23).

Subsurface testing also produced more materials indicative of the Woodland period. Chipped stone materials include two arrow points, three biface fragments, two wedges, 440 pieces of debitage, and 92 pieces of fractured rock. Also discovered at the site were 159 pieces of mudstone and one modified bone tool (Bartlett 2000: 23-28).

The artifacts recovered from 34BL103 suggest a Woodland occupation of the site. The corner-notched arrow points and the corner-notched biface fragment are diagnostic of a Plains Woodland presence at the site. The mano and metate indicates that some sort of plant processing occurred at the site. Pottery is also present at the site. One charcoal sample produced from the subsurface testing provides a radiocarbon date of 1460 ± 60 years BP (Beta-108582) (Bartlett 2000: 11). The calibrated calendar date for the site is A.D. 619 which places it within the Woodland period.

A Late Prehistoric component is also present at the site. This is indicated by the presence of a triangular Fresno projectile point. The Fresno point was taken from the same layer as the charcoal sample, but its presence there is most likely the result of mixing or compression of the archaeological materials. One obsidian flake was also discovered at the site. Using the obsidian hydration dating technique, while being fully aware of its dating limitations, produced a date of A.D. 1277 for the creation of the flake (Bartlett 2000: 35). No other diagnostic artifacts for the Late Prehistoric period have been uncovered.

34BL118

Another Woodland site was reported by Drass (2003) along Deer Creek in Blaine County, Oklahoma. This second site is 34BL118 which is a Woodland and/or Late Prehistoric camp or village site. Woodland sites in northwestern Oklahoma tend to be small camp sites or

workshops but Drass (2003: 11) states that this may reflect more of a research bias or the burial of larger camp sites rather than the lack of larger sites. The site itself is on a high ridge overlooking a small creek to the north and the Canadian River bottom to the south. Artifacts at the site include four ceramic sherds, one biface fragment, 27 flakes, one piece of blocky debris, two hammerstones, four cobble fragments, nine fire cracked cobbles, and two tested cobble fragments (Drass 2003: 58). Of the lithic material at the site, most of the material consisted of Alibates. Other lithic material from the site includes Ogallala quartzite, various quartzites, Tecovas jasper, petrified wood, and some unidentified cherts (Drass 2003: 58). The ceramic sherds were half smooth surface and half cordmarked.

A private collector had collections from the 34BL118 site. These were listed separately from the material observed by the Oklahoma Archeological Survey archaeologists as the collector could not determine if they were entirely collected from 34BL118 or possibly another nearby site (34BL119). Ceramic artifacts from the private collection include 20 sherds. Five of the sherds are smoothed surface, one has a smoothed-over cordmarked, and 14 are cordmarked. The lithic material is also a collection from both sites. Only the lithic items known to be from 34BL118 are listed here. Lithic artifact types include projectile points, drill tips, knives and knife fragments, and scrapers. Of the projectile points, one is an Ellis point from Ogallala quartzite, one Fresno point of Florence-A, two Fresno points of Alibates, two Scallorn points from Alibates (one with stream cortex), one corner-notched arrow point from Florence-A, one Harrell point from Tecovas jasper, one Reed-like point from Alibates, and 5 arrow point preforms. Other chipped stone artifacts include a drill tip, an ovate knife, a beveled knife fragment, and two scrapers (Drass 2003: 59).

Farra Canyon

Farra Canyon continued to be utilized during the Woodland period. Many of the point types describes by Banks (1996) are not diagnostics to only the Woodland period. A total of 80 projectile points collected at the canyon are Late Archaic and/or Woodland period points. Of the 80 projectile points, 17.5% are from Edwards chert, 31.3% from Ogallala quartzite, 35% from Alibates and Tecovas jasper, and 8.7% from Florence A and B (Banks 1996: 68). The higher frequency of Late Archaic/ Woodland period projectile points reflects a higher utilization of the canyon resources. Climate during the Late Archaic/ Woodland periods resembled modern climate conditions which may explain the more intensive utilization of the canyon.

Ellis County

Archaeological surveying by the Oklahoma Archeological Survey along the Wolf Creek drainage basin by Richard Drass and Christopher Turner (1989) produced one Woodland site in Ellis County. Braunn's VI site, 34EL57, is a multi-component site with a historic and Woodland period occupation. The Woodland component of the site produced a scallorn point constructed from Tecovas jasper, one core fragment, three quartzite cobbles and flakes, two Alibates flakes, and bone fragments (Drass and Turner 1989: 135). No prehistoric ceramics were discovered, but due to the geology of the site, more Woodland cultural materials may be deeply buried.

Garfield County

Archaeological investigations by Charles S. Wallis, Jr. (1979) along the upper Red Rock Creek watershed in Garfield County reported one Woodland or Late Prehistoric site and three Archaic and/or Woodland sites. The Woodland or Late Prehistoric site, 34GF11, contains a “Scallorn type” arrow point, quartzite flakes, cores, and burned stones (Wallis 1979:6). The three Archaic and/or Woodland sites are 34GF19, 34GF41, and 34GF44. The first site, 34GF19, is probably an Archaic site due to the presence of a “Clear Fork gauge” as well as an Ogallala quartzite preform fragment, a utilized flake from unidentified quartzite, a Kay County chert core, a knife fragment of Kay County chert, a Neva chert endscraper, sandstone handstone and milling stone fragments (Wallis 1979: 6). The other two sites consist primarily of flakes made from Day Creek chert and various quartzites. At 34GF41, the tenet reported finding two dart points (Wallis 1979: 7). The site 34GF44 also contains a fragment of a corner-notched dart point and petrified wood (Wallis 1979: 7).

Harper County

Patsy’s Island, 34HP70, was originally discovered by Oklahoma Archeological Survey archaeologists during a pedestrian survey of the Cimarron drainage system. Exposed cultural material initially discovered at the site includes fire cracked rock (FCR), turtle and deer bone fragments, a scallorn arrow point, a biface, and an unidentified core (Bement et al. 2002: 56). Later archaeological testing produced more archaeological material at the site. Artifacts discovered after test excavations at the site in 2003 consist of 604 chipped stone flakes, five

points, five knives, three scrapers, 75 groundstone fragments, one quartzite hammerstone, one metate fragment, 22 ceramic sherds, five daub fragments, and 91 bone fragments.

Chipped stone artifacts include some diagnostic artifacts. A total of three projectile points, one point preform, and two point fragments. The three projectile points and one point fragment are Scallorn points (McKay et al. 2004: 38). Scallorn points are frequent on the Southern Plains throughout the Plains Woodland and the Plains Village periods. Other chipped stone tools consist of five large, modified flakes; three scrapers, two constructed from large flakes; five knives, also constructed from modifying large flakes. Only one scraper and one knife had purposeful construction into those tools but are diagnostically insignificant.

The lithic materials at the Patsy's Island sites are predominately from local sources. The most common lithic source is Day Creek dolomite (62% of the lithic sample) (McKay et al. 2004: 38). The second most common lithic source is Tesesquite or Dakota quartzite (16.5%). Other lithic sources include cherts from Ogallala gravels (7.3%), Ogallala quartzite (5.6%), fine grained (2.8%) and course grained (0.8%) ferruginous quartzite, chalcedony (1.3%), jasper (1%), silicified wood (0.8%), silicified sandstone (0.7%), siltstone (0.7%), and quartz crystal (0.5%).

Seventy-seven groundstone tool or tool fragments were found at the site. The majority of the groundstone artifacts are fire cracked sandstone fragments. Thirteen of the items exhibit signs of battering and probably served as hammerstones (McKay et al. 2004: 41). The most significant groundstone artifact find is the metate fragment made from Permian Redbed sandstone. A residue analysis was conducted on the use surface of the metate. It determined that corn, *Zea mays*, and a member of the gourd family, *Curcubita*, were the only unique pollens

on the metate's surface that were not present in the site's soil pollen profile (McKay et al 2004: 42).

A total of twenty-four ceramic pieces were discovered at the site. Almost half (n=11) did not have sufficient surface to determine any surface decorations. Seven sherds exhibit smoothed-over cordmarking. The next most common (n=5) sherd decoration type is plainware. Only one sherd exhibited cordmarking.

Daub is also present at the Pasty's Island site. A total of four pieces were collected. No impressions were recorded on the daub, and no indications of burning/firing were observed. It is unknown whether the daub is associated with unknown structures at the site.

The bone assemblage at the Pasty's Island site is very common for the Southern Plains. Faunal remains collected include bison, deer, turtle, various rodents, badger, snakes, mollusks, and unidentified medium-sized animals (McKay et al. 2004: 43). No bird bones were discovered at the site. The bones of an adult dog were discovered with one bone exhibiting signs of burning. This suggests that the dog may have been a source of food.

Floral remains for the site provide new information about the development of agriculture in northwestern Oklahoma. Corn was discovered at the Pasty's Island site. Corn horticulture during the Woodland period on the Southern Plains is very rare and not well documented. No other cultural components exist at the site to possibly lead to an admixture of cultural materials so the corn material must have been present during the Woodland occupation. An AMS analysis of a single corn kernel produced a date of 1010 ± 40 B.P. (Beta 189691) (McKay et al. 2004: 37). This places the corn production within the Woodland period. Other floral remains are typical for the Southern Plains Woodland sites. These include Chenopodia, Amaranth, and nutshells.

Purselane and hackberry seeds are also represented at the site and are noted to be common food sources for Woodland peoples.

Charcoal samples were also taken at the Patsy's Island site. A total of eight charcoal samples were obtained for the site. One charcoal sample taken in association with a corner-notched arrow point produced a date of 1270 ± 40 B.P. or A.D. 670-870 (Beta 184855) (McKay et al. 2004: 37).

A small midden was located at the site, but the site lacked other forms of features. Despite the presence of daub, no architectural features were discovered at the site. Possible hearths may be represented by clusters of burned rocks but are not well preserved.

Summary

The Woodland period still remains relatively unknown in northwestern Oklahoma. Woodland period sites exist in the area but are difficult to distinguish from earlier and later time periods. More archaeological work needs to be conducted in order to differentiate Woodland sites from other time periods as well as be able to determine cultural affiliation with specific sites. No known archaeological cultures have been identified for the Woodland period as so little is known about the time period. Some Woodland sites can be identified using radiocarbon dating techniques but others can not. More archaeological work is needed focusing on locating and identifying Woodland period sites in this region.

CHAPTER 7

THE LATE PREHISTORIC PERIOD

The Late Prehistoric period, also called the Plains Village period, dates from A.D. 700 to A.D. 1500. Due to the availability of archaeological materials, the Plains Village period is one of the best understood time periods in the state of Oklahoma. It is characterized by large farming societies based along the major water systems in the state. Southern Plains Village characteristics include the intensification of agriculture, the use of subsistence storage pits, expanded artifact inventories, and the use of permanent houses and larger settlements (Drass 2003:12). These peoples relied upon the growing of corn, beans, and squash and supplemented their diet with the hunting of wild game. Southern Plains Village groups relied heavily on bison as these bones dominate the faunal remains for this time (Brooks 1989: 75).

Several known cultural groups are present in western Oklahoma, southern Kansas, and the Texas Panhandle during the Late Prehistoric/ Plains Village period. The Zimms Complex and the Odessa phase are the only two phases currently known to cover the counties within this thesis. Their relationship to other cultural groups on the Southern Plains is still unknown. Other cultural phases on the South Plains include the Custer phase, Antelope Creek phase, Washita River phase, and the Bluff Creek phase.

The Zimms Complex

The Zimms Complex in western Oklahoma (A.D. 1265- 1425) represents a Plains Village manifestation that is poorly understood. Few Zimms sites have been located and, therefore, excavated. The complex appears to represent a combination of cultural traits of the Antelope Creek phase of the Texas and Oklahoma panhandles and the Washita River phase of western and central Oklahoma.

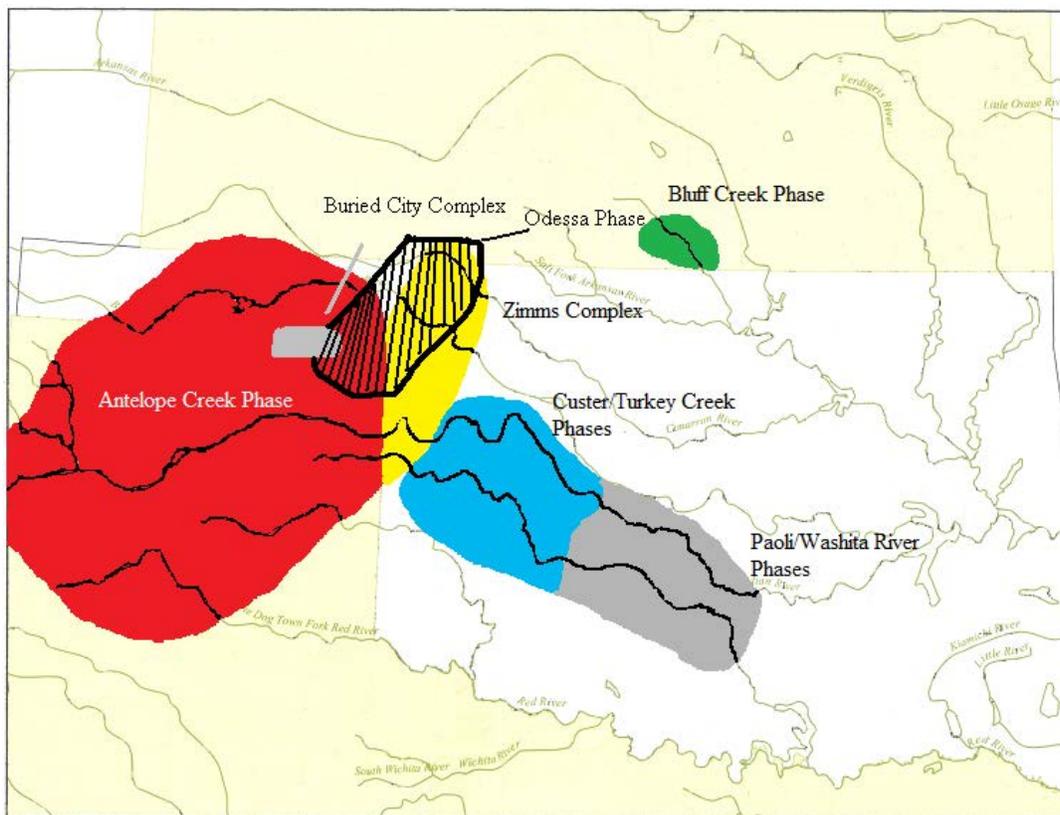


Figure 11. Late Prehistoric cultures on the Southern Plains.

Zimms Site

The type site for the Zimms Complex is the Zimms site, 34RM72. The Zimms site was excavated in 1973 by the Oklahoma Archeological Survey. The site is located 0.5 km south of

the confluence of the Hay and Quartermaster Creeks in Roger Mills County (Flynn 1984: 216). One Plains Village structure was excavated and labeled Structure #1. Structure #1 measures 6.1 by 6.4 meters (39m²). The structure is rectangular with 48 exterior post holes and two interior posts that may have supported a roof of thatch or thick grass (Flynn 1984: 223). The structure contains a central floor channel with a raised platform altar. The central depression runs the entire length of the house. A small pit and central hearth also are present inside the structure. The house lacks an extended entryway and has no visible doorway (Brosowske 2002: 21).

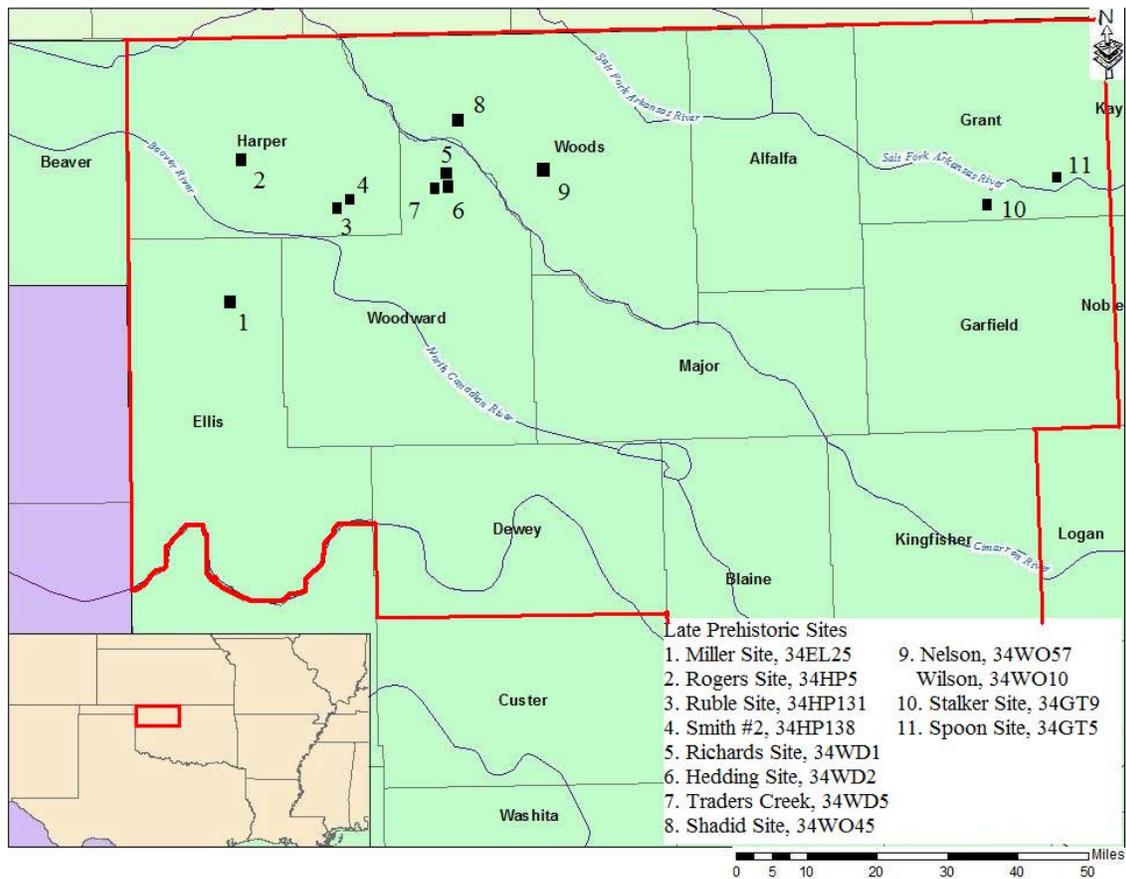


Figure 12. Late Prehistoric sites in northwestern Oklahoma.

Pottery at the Zimms site is mostly homogenous. A total of 575 sherds representing at least 11 different vessels were recovered. Ninety-seven percent of the ceramic sherds are smooth surface wares (Flynn 1984: 225). Cordmarked pottery consists of less than 2% of the total assemblage. Decorations, although rare, consist of nodes, fillet strips, rim tabs, strap handles, and parallel-incised lines (Brosowske 2002: 23).

Various projectile point forms and other chipped stone artifacts are present at the Zimms site. These include Washita (n= 16), Harrell (n= 1), Scallorn (n= 1), Fresno (n= 1), Marcos (n= 1), and a corner-notched dart point (n= 1). Other flaked tools include beveled knives (n= 11), scrapers (n= 29), drills (n=6), graters (n= 4), spoke shaves (n= 3), bifaces (n= 83), cores (n= 3), and numerous utilized flakes. Lithic items were mostly composed from local sources. Lithic material sources include Ogallala quartzite (26.5%), Alibates/ Tecovas (21.5%), unidentified quartzite (20.6%), unidentified chert (14.4%), Florence A chert (6.4%), Dakota quartzite (6.4%), obsidian (0.3%), and other miscellaneous types (4.0%) (Brosowske 2002: 23). Most (75%) of the Alibates present at the site exhibit signs of cortex present indicating that it was obtained from local gravel sources. The three obsidian flakes from the Zimms site have been sourced to Malad, Idaho and the Valle Grande locality complex in New Mexico (Brosowske 2002: 23).

Various faunal remains are represented at the site. Identified species include deer, black-tailed prairie-dog, bison, striped skunk, eastern cottontail, turtle, and mussel shells (Brosowske 2002: 23). No preserved plant remains were located at the site, but one bison scapula hoe and a tibia digging stick were recovered from the site. This suggests that some form of horticultural activities took place at the site. Other bone tools from the Zimms site include two awls, an antler projectile point, and ten unknown tool fragments (Brosowske 2002: 23).

The Zimms site has several characteristics similar to other Plains Village cultures on the Southern Plains. Structure #1 is very similar to the Unit Type I structure of the Antelope Creek phase without the stone slab foundations and the extended entryway (Lintz 1986). The pottery of the Zimms sites resembles that of the Washita River/ Turkey Creek phase (Drass 1989).

The Hedding Site

The Hedding site, 34WD2, was discovered in Woodward County during highway construction that bisected the site. The site is located 11 miles north of Mooreland, Oklahoma on the west side of old state highway 50 (Shaeffer 1965: 131). Two outlines of houses were uncovered during road grading. No dates for the Hedding site exist, but its cultural material places it in the Plains Village time period.

House #1 is a small, nearly square room. The house measures 10 or 10.5 feet by 11 feet and had evidence of being burned (Shaeffer 1965: 133). No post molds were recorded. Two interior pits were located with the structure of House #1. One pit had a 2 feet diameter and is 4 feet deep, and the second pit had a 3.5 feet diameter by 4.5 feet deep. Only one Fresno point was found in the second pit; nothing else was recorded inside of the pits (Shaeffer 1965: 138).

Another pit was listed at the site map but was not discussed in the text.

House #2 is closely similar to Structure #1 at the Zimms site. House #2 is about 80 feet southeast of House #1. This house is a different type of structure than House #1. House #2 is rectangular, 12.5 feet by 17.5 feet structure that was dug about 8-12 inches into the soil. An 8 foot entrance is located to the east. A fire pit was located slightly to the rear of center. A

projection 8 inches wide along the back wall was a small banquette or projection. The walls of House #2 extend beyond the rest of the structure on the sides with the projection.

Three rooms exist on the south side of House #2. No evidence of hearth or diagnostic artifacts was discovered in the three rooms. Their exact purpose is still unknown, but the structure of House #2 is almost identical in form with the Unit Type I house of the Antelope Creek phase (Lintz 1986).

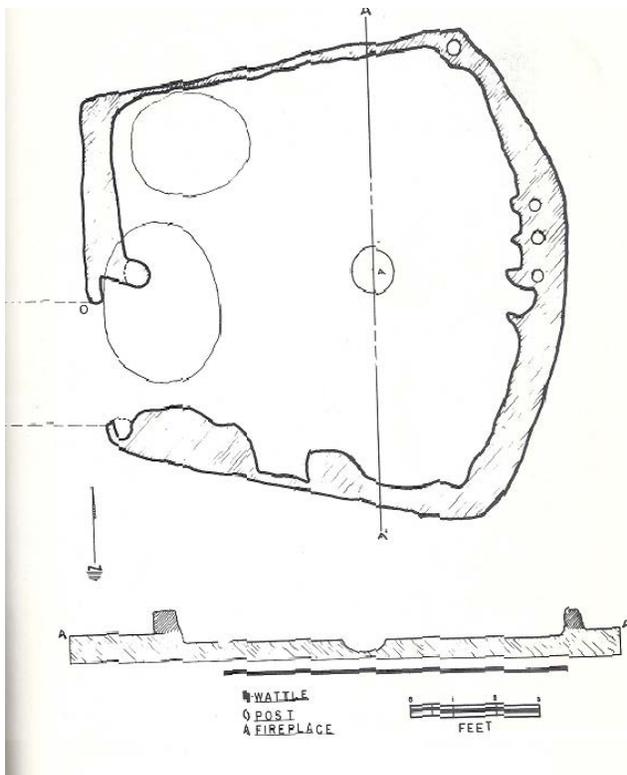


Figure 13. Hedding Site, House #1 (Shaeffer 1965: 135).

House #2 corresponds with Structure #1 at the Zimms site. It is smaller than the Zimms site structure and the bins or rooms on the south side of House #2 are not observed for Structure #1 of the Zimms site. Brosowske (2002: 32) noted that the structures of both the Zimms and the

Hedding sites may represent a form used over much of the Southern Plains “by a number of culturally unrelated groups”.

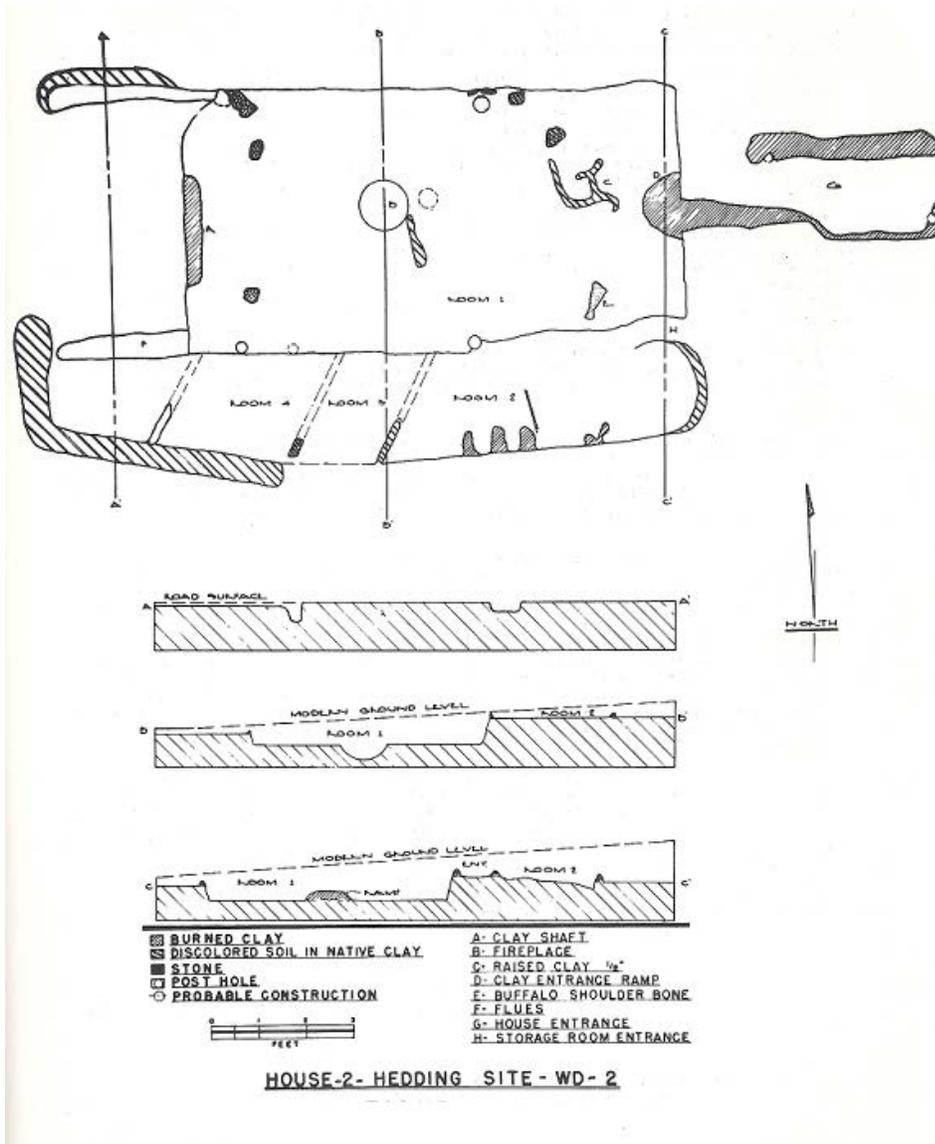


Figure 14. Hedding Site, House #2 (Shaeffer 1965: 137).

Little discussion has occurred around House #1 at the Hedding site. It does not currently fit into any known structure type on the Southern Plains. Brosowske posits that the structure is similar to one excavated in Kansas (14CM407) (Bevitt and Brosowske 2001). They include House #1 into the Plains Border Variant rather than being part of the Zimms complex.

The faunal assemblage at the Hedding site is dominated primarily by large game animals, particularly bison and deer. Only a minimum number of individuals of one for deer and two for bison have been established for the Hedding site (Drass 1989: 3). This differs from the Zimms site in that the Hedding site people depended more upon bison and larger game rather than the small and medium sized game from the Zimms site.

Floral remains were not observed at the Hedding site. But the presence of 14 bone digging tools indicates the importance of horticulture at the Hedding site. Bone tools include 11 bison scapula hoes, 3 tibia digging sticks, and one notched scapula scraper.

Ceramics at the Hedding site have remained controversial. Shaeffer's (1965) original analysis of the ceramics from House #2 consists of 90% plainwares with sand temper. Flynn (1984: 284) also examined the ceramics from the site and describes them as smooth-surfaced with shell temper. Drass (1989, 1995) reexamined all of the Hedding site ceramic material and identified it as predominately smoothed-over cordmarked with a sand temper.

The ceramics of the Hedding site have different characteristics associated with the two house structures at the site. House #1 contains 52% cordmarked sherds, 36% smoothed-over cordmarked, 4% Wolf Creek Plain, and 8% of other types of ceramics (Brosowske 2002: 33). House #2 consists of 11.8% cordmarked, 5.8% smoothed-over cordmarked, and 82.4% Wolf Creek Plain.

Drass (1989: 3) states that the pottery at the Hedding site does not resemble the ceramics of the other Zimms sites. Quartermaster Plains ceramics, which comprises most of the ceramics from other Zimms complex sites, is completely absent from the Hedding site. The Hedding site ceramics are more similar to other Southern Plains cultures. Borger cordmarked ceramics

represent over 73% of the assemblage from House #1, and Wolf Creek Plain is dominant for House #2 (Brosowske 2002: 34). Borger cordmarked and Wolf Creek Plain ceramics are common ceramic types associated with the Antelope Creek phase.

Chipped stone artifacts from the Hedding site are typical of Plains Village assemblages. Local raw lithic materials dominate the collection. Day Creek chert represents 74% of the assemblage with other local materials, quartzite (2%) and Tecovas (3.3%) also present (Brosowske 2002: 28). Non-local lithic materials include Alibates (3.6%), Florence A (9.2%), Wreford (0.7%), and Edwards (1.6%). Diagnostic lithic tools include one Fresno projectile point and one beveled knife fragment.

The Hedding site has significant cultural differences from other sites in the Zimms complex. Significant differences in the subsistence strategies, in ceramic, and in bone assemblages exist between the Zimms complex and the Hedding site. Brosowske (2002) has suggested that the site should not be included as part of the Zimms complex but adds that it be included as part of the Plains Border Variant.

Redbed Plains Variant

The Redbed Plains Variant describes the cultural manifestations along the Washita River that extends north along part of the Canadian River and west into the High Plains and east to the Arbuckle Mountains in south-central Oklahoma. The boundaries may be expanded as more archaeological research is conducted to the north and the south. The Redbed Plains Variant dates from A.D. 800 to 1450. Included as part of the Redbed Plains Variant are the Custer, Paoli, Turkey Creek, and the Washita River phases. Once all either Custer or Washita River phases,

temporal and spatial characteristics have divided the phases. In the western part of the Redbed Plains Variant, the early cultural manifestation is the Custer Phase. The Custer Phase is the cultural predecessor for the later Turkey Creek Phase in the west. In the east, the early cultural manifestation is the Paoli phase, and the later manifestation is the Washita River phase (Drass 1997: 18). The early and later manifestations end or begin, respectively, at about the date of A.D. 1250.

Custer Phase

The Custer phase as defined by Bell and Baerreis (1951) describes as a series of sites along the Washita River in Custer County, Oklahoma. The phase precedes the Washita River phase in west-central Oklahoma. Custer phase sites are also located in Washita, Beckham, and Roger Mills counties as well as in Garvin, McClain, and Murray counties (Brooks 1989: 75-76). Radiocarbon dates for the Custer phase sites date the phase to A.D. 800 to 1250.

Custer phase sites are generally less than 2 hectares in size. Sites appear to be semi-permanent hamlets by groups of less than 50 individuals (Brooks 1989: 76). Architectural features for Custer phase sites are not well known. A total of two structures have been excavated for the phase. Houses are made of wall posts and wattle and daub outlining a rectangular or square structure. A hearth is centrally located within the structure (Hofman 1984: 294). Central support posts may be present but do not exhibit any particular pattern or specific number in Custer phase sites. Due to the small sample of excavated houses, little is understood about the most typical architectural form of Custer phase structures.

Storage pits are common features at Custer phase sites. These can be round or oval and are basin-shaped or cylindrical with a flat bottom (Brooks 1989: 76). The pits are about 1 meter in diameter and 0.5 to 1 meter in depth. They exhibit signs of being used as storage pits which have been filled with trash.

One of the most abundant artifacts at Custer phase sites is pottery sherds. Custer phase ceramics consist primarily of globular cooking or storage vessels. Surface treatment includes smooth, cord marked, and smoothed-over cord marked. Smoothed-over cord marking is the most predominant form of surface treatment (Hofman 1984: 296). Decorations are not common, but applied nodes or punctuates and notched rims appear on smooth sherds. Cord marked vessels or sherds may exhibit diagonally cord marked lips (Hofman 1984: 296). Temper consists of a variety of materials. It often consists of caliche but fossiliferous shale may also be used (Brooks 1989: 77).

Other ceramic artifacts were also produced. These include figurines and discs made from pot sherds. Figurines appear in the form of humans. The figurines are not recovered from burial contexts (Hofman 1984: 296).

Chipped stone assemblages are plentiful at Custer phase sites. Chipped stone tools include projectile points, scrapers, drills, knives, unfinished materials, and debris (Brooks 1989: 76). Fresno, Washita, and Harrell points as well as Scallorn points represent the projectile points at Custer Phase sites. Chert scrapers are also abundant, and scraper forms include endscrapers, side scrapers, simple flint scrapers, and pointed scrapers. Knife forms represented at Custer phase sites are alternately-beveled diamond shape, ovate, triangular, and simple flake knives.

Ground stone technology of the phase includes manos, grinding slabs, sandstone abraders, celts, elbow pipes (Brooks 1989: 77).

Bone artifacts are present at Custer phase sites. Bone assemblages are usually produced from deer or bison bone and consist of scapula hoes, bison tibia digging sticks, bone knives or fleshing tools, awls, arrow shaft wrenches, antler flaking tools, antler handles, rib rasps, deer toe tinklers, and tubular bone beads (Brooks 1989: 77).

Turkey Creek Phase

The Turkey Creek phase, A.D. 1250 to 1450, was a continuation of the Custer phase in western Oklahoma. The phase is the western extension of the Washita River and Custer phases. The general boundaries for the phase are the tall grass prairies of the east and the short grass prairies on the west (Drass 1997: 19).

Turkey Creek phase sites vary in usage of lithic materials and proportions of ceramic material. Turkey Creek lithics are predominately Alibates supplemented with local cherts and quartzites (Drass 1997: 19). Ceramics for the Turkey Creek phase consist of 12% to 28% cordmarked sherds while the Washita River phase ceramics consist of less than 5% cordmarked pottery. Subsistence strategies also varied from the Washita River phase for Turkey Creek phase sites. Bison hunting became much more prevalent during the Turkey Creek phase. Settlements began moving away from the Washita River to on high settings along smaller tributaries of the river. Brooks (Moore 1988) suggests that this is due to the emphasis on bison hunting, but Vehik (2002) suggests this is more likely due for defense reasons.

Washita River Phase

The Washita River phase as originally defined by Bell and Baeris (1951) extended mainly along the Washita River valley and its tributaries as well as the along the South Canadian River. It was bounded on the eastern edge by the Post Oak- Blackjack Cross Timbers and on the west by the Redbed Plains. Original dates for the Washita River phase placed the phase at A.D. 1100 to 1400 or 1450, but new radiocarbon dates have narrowed the dates to A.D. 1250-1450 (Drass 1997: 14). Since 1988, more archaeological investigations of the Washita River valley have provided new information about the phase and its relationship to other Southern Plains cultural manifestations. The Washita River phase now refers to the later eastern cultural manifestation of the Redbed Plains Variant.

Washita River phase sites consist of villages contain about 5 to 20 houses. Recorded features at sites include houses, pits, middens, hearths, and burials (Drass 1997: 14). House structures of the Washita River phase are square or rectangular in shape and are constructed of wood and daub. House features consist of post molds for roof supports, storage pits, a hearth, and occasional post holes suggesting internal divisions or features (Bell 1984: 312). Walls were constructed of wooden posts about 45 to 75 cm apart and filled in between with sticks, grass, cane, and daub.

Cache and storage pits are common at Washita River phase sites. Pits are circular in shape with a depth of 1 to 1.5 meters (Brooks 1989: 78). Some of the pits appear to be first used as cache pits and then filled with refuse.

Burials are also present in sites. Usually burials took place in a cemetery located near the village site, but a few isolated burials are known within the village. Skeletons were a pit-type

grave in a flexed or semi-flexed position with the heads facing an eastern direction (Bell 1984: 312). Grave goods include pottery vessels, tools, and articles of adornment.

Artifacts assemblages are similar to other Redbed Plains Variant artifacts with increasing diversity in Washita River phase artifacts. Chipped stone lithic artifacts include projectile points, scrapers, drills, knives, and other items. Projectile points are typically small, triangular points such as Fresno, Washita, Harrell, Scallorn, Moris, Bonham, and Huffaker (Brooks 1989: 79). Knives are represented by ovate, triangular, and diamond shaped alternately-beveled. Lithic sources for tools are a mixture of local and non-local types. Local cherts utilized include Frisco chert, Florence A or Kay County chert; exotic lithic materials include Alibates agatized dolomite.

Ground stone tools include metates and manos, cupstone or nutting stones, celts, grooves abraders, perforated sandstone disks, and elbow pipes (Bell 1984: 315).

Bone artifacts of the Washita River phase include a wide variety of bone and antler artifacts. Digging implements, such as bison tibia digging stick tips and bison scapula hoes, are common. Also represented at Washita River phase sites are deer jaw sickles, beamers, notched bone rasps, flakers, shaft wrenches, scrapers, fish hooks, arrow nocks, awls or perforators, and rarely small bone balls and bone pendants (Brooks 1989: 79). Antler was primarily utilized for handles and chipping tools.

Washita River phase ceramics are abundant at the sites. Most of the ceramic sherds for the phase are smooth surface, shell tempered, globular jars. Decorations are not common but may include lip tabs, handles, appliqué nodes and strips, punctuates, or incising (Drass 1998: 431). Other tempering agents include caliche, sand, crushed bone, crumbles of limestone or

sandstone, and unidentified angular particles. The variety in tempering materials may indicate that Washita River phase peoples utilized any available tempering agent rather than having a particular cultural preference for temper (Bell 1984: 318).

Upper Canark Variant

Formerly known as the Panhandle Aspect, the Upper Canark Variant represents the cultural patterns along the major drainages in southeastern Colorado, northeastern New Mexico, and the Oklahoma and Texas panhandles. The Upper Canark Variant dates range from A.D. 1100 to 1500 (Drass 1998: 418). The origins of the Upper Canark Variant cultures are uncertain but they possibly developed from local Plains Woodland populations (Brooks 1989: 80). The term Upper Canark Variant refers to the Plains Village manifestations that have a dual subsistence practice of hunting large game and farming with houses usually on high terraces with foundations of vertical rows of stone slabs (Lintz 1986: 25).

Cultural characteristics of the Upper Canark Variant include the use of cordmarked pottery, triangular side-notched points, end and side scrapers, triangular and ovate knives, and tanged drills (Lintz 1986: 25). Cultural material for the Upper Canark Variant is similar to that of other Plains Villagers to the east with its main differentiation being the architecture of house structures.

The Upper Canark Variant contains many recognized cultural complexes. The complexes include the Antelope Creek phase and the Buried City complex of the Texas panhandle, the Optima focus of the Oklahoma panhandle, and the Apishapa phase of southeastern Colorado.

Antelope Creek Phase

The Antelope Creek phase was first defined by Moorehead (1921) to describe similar sites along the Canadian River and Wolf Creek in Texas. Antelope Creek phase sites extend north to the North Canadian-Cimarron River drainage divide, south to the Prairie Dog Town Fork of the Red River, and west near the western escarpment of the Llano Estacado (Lintz 1989: 274-275). The eastern boundary is hard to determine due to the discovery of two similar complexes to the east of the Antelope Creek phase, the Buried City Complex in the Texas panhandle and the Zimms Complex in northwestern Oklahoma. General characteristics of the Antelope Creek phase include a dual foraging-horticultural economy, small side-notched and unnotched projectile points, cordmarked pottery, stone masonry architecture, and single flexed burials (Lintz 1989: 273). Radiocarbon dating of Antelope Creek sites is well known. The Antelope Creek phase dates to between A.D. 1200 and A.D. 1500 (Brooks 1989: 80).

Antelope Creek phase sites range in size from single-room dwellings to villages with structures having more than 35 rooms. Village sites are usually situated on top of steep terraces (Brooks 1989: 81). Other features of Antelope Creek sites are the presence of storage pits, burials, and midden deposits.

Antelope Creek dwellings consist of large stone slabs used for wall construction. House structures vary greatly across sites. Circular, rectangular, oval, square, and irregular structures have been observed for the phase (Brooks 1989: 81). Six different room patterns have been identified for the Antelope Creek phase. Rooms and structures may range in size from 5 meters to rooms up to 60 meters squared (Brooks 1989: 81). Structures are also known to have extended entryways, central fire pits, internal benches, and possible altars.

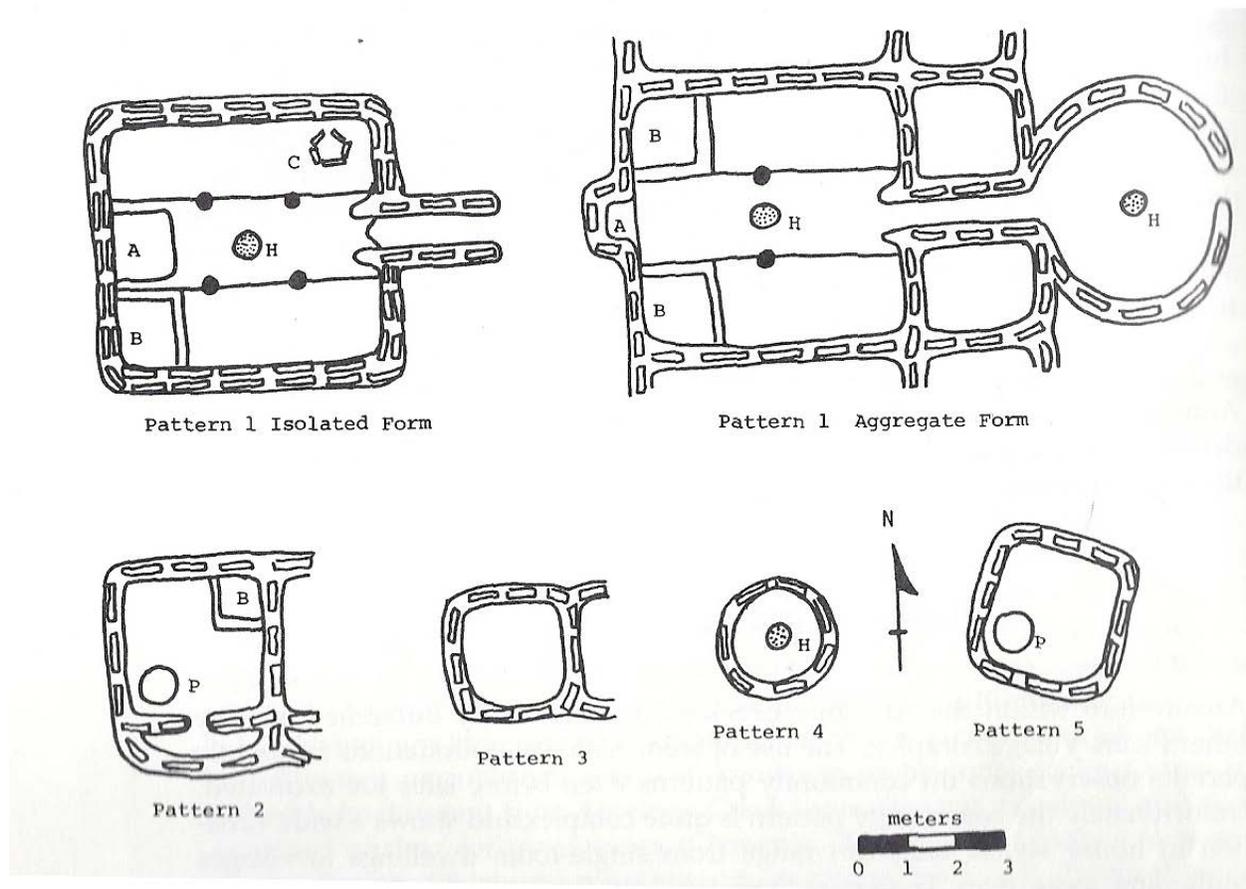


Figure 15. House structures identified for the Antelope Creek phase.

Antelope Creek phase people based their subsistence on dual foraging and horticultural activities. Hunting of bison, antelope, and deer was the predominant source of meat, but small game animals also supplemented the diet (Lintz 1984: 331). Horticultural activities also played a part in Antelope Creek phase sites but the extent of their dependence upon horticulture is not known. Cultivated plants include corn, squash or pumpkin, and beans (Lintz 1984: 331). Wild plants were also gathered. Wild plants discovered at Antelope Creek phase sites include acorns, hackberry, mesquite, grasses, wild buckwheat, cattail stems, plums, persimmons, prickly pear cactus, and Indian mallow (Lintz 1984: 331).

Artifact assemblages for Antelope Creek phase sites include chipped stone tools, ground stone tools, pottery, and faunal remains. Chipped stone tools represented at Antelope Creek phase sites include projectile points, scrapers, knives, drills, hoes, and preforms (Brooks 1989: 81). Projectile points tend to be small, triangular arrow points with or without side-notches. Dart points have been found at Antelope Creek sites but are not common (Brooks 1989: 81). Knives are typically alternately beveled diamond shaped but ovate and curved knives are also present.

Ground stone tools include grinding basins, manos, abraders, hammerstones, ornaments, pipes, and celts. Grinding basins tend to have oval basins. Ornaments include stone beads and turquoise pendants (Brooks 1989: 81). Sandstone shaft abraders and bone tool sharpeners are also common.

Bone artifacts and tools tend to be produced from bison or deer bone and include bison scapula hoes, squash knives, tibia digging stick tips, awls, beads, bone wedges, rib “rasps”, antler tine billets, and pressure flaking tools (Lintz 1984: 279).

Clay artifacts include pottery, tubular pipes, and clay beads. Pottery for the Antelope Creek phase is represented by two types: Borger Cordmarked and Stamper Cordmarked (Brooks 1989: 82). Decorations are not common but may include punctations and diagonal tool impressions on the lip, pinching of the lip-rim juncture, and punctuating or finger gouging a single row of dots around the rim (Lintz 1984: 334). Temper consists of crushed rock and sands with possible other tempering agents of bone, mica, or other tempers. Other clay artifacts include pottery disks, daub, and tubular pipes.

Exotic artifacts are also present and indicate connections with the southwest. Southwest ceramic artifacts include black-on-white wares. Other trade items found at Antelope Creek phase sites include obsidian, turquoise, tubular pipes, and *Olivella* shells (Brooks 1989: 82).

Buried City Complex

The Buried City Complex is a variant of the Upper Canark Variant along the Wolf Creek in the Texas panhandle. Architecture of Buried City is similar to that of the Antelope Creek phase without the stone slab foundations (Brooks 1989: 83). Caliche boulders were used instead to line the foundations of some house types for the complex. A total of four house styles have been discovered for Buried City complex sites. These include the caliche boulder foundation structures, pit-houses, single-post wall structures, and a very large, multi-roomed, stone based house.

Buried City pottery differs from Antelope Creek phase pottery in the types of surface treatments, tempers, and the frequency of decorations primarily on the rims. Buried City pottery includes cordmarked, smoothed, and smoothed-over cordmarked (Hughes 2002: 1). About one-third of Buried City rim sherds exhibit decorations. Decorations include fingernail impressions, collars, and various incisions on the rims. Temper in Buried City ceramic sherds is primarily fine quartz sand with occasional usage of grog, burned and unburned bone, shell, or other unidentifiable inclusions (Hughes 2002: 1).

Lithic tools are similar to other Southern Plains tool assemblages. These include triangular arrow points, drills, and diamond-shaped beveled knives. Lithic sources vary from many Southern Plains sites. Lithic materials common at Buried City sites include Alibates,

Niobara jasper from western Kansas, and Tecovas jasper from the southern Texas panhandle. Tools exhibit signs of extreme usage and recycling before being discarded indicating a limited supply or access to lithic sources.

Bone assemblages for the Buried City complex are similar to other Plains Village assemblages on the Southern Plains. Bone tools include bison scapula hoes, bison tibia digging stick tips, deer metapodial awls, and deer mandible sickles (Brooks 1989: 84).

Subsistence practices for the Buried City complex are not well documented. The presence of horticultural bone tools indicates some cultivation of crops. It is assumed that subsistence strategies are similar to those of the Antelope Creek phase peoples.

Optima Focus

The Optima focus was defined by Virginia Watson (1950) based upon the Stamper site in Texas County, Oklahoma. The focus is closely related to the Antelope Creek phase. Bell and Baerreis (1951: 83-84) describe the Optima focus house structures as rectangular or square and having rows of upright stone slabs used to reinforce the walls, a central fireplace, and an extended entryway. Alibates was the primary lithic source utilized by Optima focus peoples. Virginia Watson (1950) added to the description of the Optima focus after the excavation of the Stamper site in the Oklahoma panhandle. The Optima focus peoples relied on horticulture, particularly of corn, and hunting-gathering for subsistence (Watson 1950: 48). Architecture for the focus is single square or rectangular rooms generally oriented with the cardinal direction with walls constructed from caliche boulders. Features associated with the houses include a central hearth and an extended entryway usually oriented away from prevailing winds.

Other features associated with the Optima Focus include burials and storage pits. Burials are flexed or semi-flexed in unlined pits. Grave goods are present and consist of personal ornaments and a pipe (Watson 1950: 51). Food storage possibly occurred in unlined, circular pits both inside and outside houses.

Pottery at Optima focus sites is Stamper Cordmarked. Stamper Cordmarked pottery is a grit tempered ceramic with mica, sand, and sometimes bone (Watson 1950: 49). No shell is used for temper. The external surface is cordmarked. Lip decorations consist of cordmarks, diagonal punctates, and circular punctates (Watson 1950: 50). Occasionally, non-lip decorations are present. These decorations consist of blunt tool depressions or thickening of the rim across which are diagonal incisions.

The subsistence strategy of the Optima Focus peoples is based upon hunting and horticulture. Large and small game was hunted including bison, deer, antelope, rabbit, and birds (Watson 1950: 48). The reliance upon corn horticulture is evident in the presence of charred corn cobs, bison scapula hoes, and bison tibia digging stick tips. Other evidence for horticulture is the presence of grinding implements: one-handed manos and circular or oval basined metates.

Lithic artifacts associated with the Optima Focus most are constructed from Alibates. Knife forms include diamond shaped alternately beveled, ovate, narrow, and slightly curved (Watson 1950: 50). Other lithic tools include plano-convex scrapers, awls, projectile points, and drills. Triangular arrow points with unnotched and side-notched varieties of projectile points are observed (Watson 1950: 51). Basally notched side-notched points are also represented.

Bone tools are also present at Optima Focus sites. As previously mentioned, there are bison scapula hoes, tibia digging sticks, and bone awls. Bone rasps are also present (Watson 1950: 51).

Kansas Cultural Groups

Two cultural groups in Kansas are also represented in Oklahoma or are possibly present in the northern counties of Oklahoma. These two groups include the Odessa phase and the Bluff Creek complex. One cultural complex, the Wilmore complex, has been identified but is no longer believed to be a valid cultural classification. Little archaeological literature attempts to address relationships between cultural groups in southern Kansas to the people living in northern Oklahoma. The Odessa phase does encompass at least one site within northwestern Oklahoma. The Bluff Creek phase may extend into Oklahoma but not enough testing has been conducted to confirm this.

Wilmore Complex

The Wilmore complex in southern Kansas is a Late Prehistoric complex that dates from about A.D. 1370 to 1450. It may be related to the Bluff Creek complex also located in southern Kansas. Architecture of the Wilmore complex includes semi-subterranean structures about 16m² in a square or rectangular shape with rounded corners (Drass 1998: 440).

Artifact assemblages of the Wilmore complex include various projectile points and cordmarked pottery sherds with sand temper. Wilmore complex projectile points include side-

notched arrow points and medium-sized corner-notched points (Drass 1998: 440). Ceramics are primarily cordmarked with sand temper. Plainware ceramics are also found with shell temper (Bevitt 1999: 170). Some rim decorations including finger pinches or fingernail impressions.

Current theories on the late prehistoric in southwestern Kansas disregard the Wilmore complex. The primary sites used to define the Wilmore complex, the Booth site (14CM406) and the Bell site (14CM407), are now classified as unidentified and unaffiliated with any known cultural traditions (Brosowske and Bevitt 2006: 1999).

Bluff Creek Phase

The Bluff Creek phase in southern Kansas was first described by Keller (1961). Further excavations by the University of Kansas and the Kansas State Historical Society provided more information about the phase. It is situated along Bluff Creek, a tributary of the Chikaskia River in south-central Kansas. The complex is thought to date between A.D. 1100 and 1300. Two radiocarbon dates from the Armstrong site, a Bluff Creek phase site in Harper County, Kansas, date the site at 820 ± 70 radiocarbon years BP (ISGS-5643 and ISGS-5644) (Meier 2007: 53). The calibrated dates of A.D. 1142 to 1292 correspond with the dates for the Bluff Creek phase.

Architecture of the Bluff Creek phase is varied. Structure shapes range from ovals to sub-rectangular in form and are about 25m^2 . Associated with the house structures are cylindrical storage and/or trash pits (Brosowske and Bevitt 2006: 196). Another feature of Bluff Creek sites are trenches orientated in a northerly direction (Meier 2007: 101). The trenches, while having many possible usages, appear to be used for nothing more than trash disposal.

Subsistence of Bluff Creek phase peoples depended heavily on horticulture and bison hunting. Plant remains include charred corn kernels and cob fragments. The presence of grinding stones and manos suggest that large amounts of corn were processed at the Armstrong site (Meier 2007: 104). Other domesticated plants also present at Bluff Creek sites were goosefoot, sunflower, hackberry, wild grape, and plum.

Bison bone tools and fragments indicate a reliance upon the mammal by Bluff Creek peoples. Bison bone tools include scapula and tibia digging implements as well as scapula knives, cleavers, awls, and notched rasps are also present (Meier 2007: 104).

The lithic assemblage exhibits many characteristics of the Southern Plains Villagers. Common traits include the use of small, triangular arrow points, diamond-beveled knives, small plano-convex endscrapers, and flake drills (Brosowske and Bevitt 2006: 197). Most of the lithic raw material is Florence A chert representing about 90% of the total lithic assemblage. Other lithic materials are rare but include Alibates agatized dolomite and various miscellaneous Mississippian cherts.

Ceramic materials for the Bluff Creek phase strongly resemble those of the Southern Plains. Sand is the most prevalent temper material but bone temper or sand and bone temper are also known for Bluff Creek sites (Meier 2007 102-103). Cordmarking is the most common form of decoration. Other decorations are rare but include trailed lines on rims and lips, nodes, appliqués, and finger or thumbnail impressed designs. Corn cob impressions are very rare but have been exhibited at Bluff Creek sites (Meier 2007: 102). Drass (2001: 40) notes that ceramics from Bluff Creek sites resemble those from the Salt Fork region in Oklahoma.

The Bluff Creek phase exhibits traits of the southern plains groups much more than of cultural traits similar to those peoples further north. Little evidence of trade exists at Bluff Creek sites but some items, turquoise beads and the presence of Alibates, indicated that some connections to the southwest existed.

Odessa Phase

The Odessa phase is located along the northeastern margins of the Southern High Plains. It dates from A.D. 1250- 1475. The phase ranges from southwestern Kansas, through northwest Oklahoma, and into the Texas panhandle. The southern boundary is well established by the boundary of the Antelope Creek phase. One site in Ellis County (34EL25 or the Miller site) is included as part of the Odessa phase. Other Odessa phase sites not in the project area include the Lundeen site (14MD306), Lonker (34BV4), Odessa-Yates (34BV100), Sprague (34BV99), and Schwab (34BV130).

Settlement patterns of the Odessa phase are based on a dual settlement pattern of homesteads and extended villages. Homesteads are identified primarily by size. Size of homesteads are less than 5,000m² (Brosowske and Bevitt 2006: 183). These exist primarily in the northern portion of the Odessa phase sites including the Miller site in Ellis County.

Extended villages are densely concentrated along the Clear, Duck Pond, Kiowa, Sand, and Wolf Creeks. Although separated by element of topography, settlements extended 6 to 12 km in length. The large settlements may have been necessary to defend valuable resources (farming lands, bison pounds, storage facilities, trade routes, etc.) (Brosowske and Bevitt 2006: 184). Most of the radiocarbon dates for village sites place the sites at A.D. 1250 to A.D. 1350;

fewer dates of A.D. 1350 to 1475 are reported for Odessa phase sites which may represent an increasing aggregation or a depopulation of the area.

Architecture of the Odessa phase is primarily oval to circular in shape pit structures. Pit houses are about 20-30m² and located about 1 to 1.5 meters below ground surface (Brosowske and Bevitt 2006: 184). Another house form for Odessa is a circular, 40-60 cm deep, and about 2 to 2.5 meters in diameter. Hearths exist just off center in shallow basins. Pit houses appear to be the most common at Odessa phase sites.

Material culture of the Odessa phase resembles that of other Southern Plains cultures. Artifacts include diamond beveled knives, triangular projectile points, endscrapers, bison tibia digging stick tips, scapula hoes, cordmarked ceramics, and abrading stones (Brosowske and Bevitt 2006: 187). The main distinguishing feature of Odessa phase sites is the usage of lithic materials. Odessa phase peoples utilized primarily Alibates agatized dolomite (50-60%) but Smoky Hill jasper consists of more of the assemblage (25-35%) than at other Southern Plains sites (Brosowske and Bevitt 2006: 188).

Subsistence patterns are fairly well understood for the Odessa phase. Odessa phase peoples depended heavily upon horticulture. Domesticated cultigens include corn, beans, squash, marshelder, and sunflower while wild plants include purselane, goosefoot, sand plums, knotweed, marshelder, bulrush, and carpetweed (Brosowske and Bevitt 2006: 186). Hunting patterns vary by site size. At small sites, hunting is not specialized as many species are represented. At the large village sites, bison dominates the faunal assemblage. Diet of the Odessa phase peoples appears to be dependent more upon the size of the group rather than the preferences of the people (Brosowske and Bevitt 2006: 187).

The Miller Site, 34EL25

The Miller site, 34EL25, was initially recorded by the Oklahoma Archeological Survey as the Herber site (Wyckoff and Brooks 1983: 111). Further archaeological investigations were conducted by Drass and Turner (1989) in their survey of the Wolf Creek drainage basin in Ellis County. The site is located along Twentyfive Mile Creek, a tributary of Wolf Creek. Several features were tested and one was excavated. The feature excavated was an eroded trash pit. Various cultural artifacts were discovered in the trash pit. Charred floral remains from this feature provided a sample for radiocarbon dating. The other artifact concentrations were a lithic scatter on a terrace, a burned soil feature with associated bone and pottery, a scatter of bone in and around a pot hole that was reported to have the remains of a human burial, and a scatter of various cultural debris (Drass and Turner 1989: 99). The two radiocarbon samples provided calibrated dates of A.D. 1281-1398 (Beta-20398) and A.D. 1322-1427 (Beta-20399) (Drass and Turner 1989: 99).

Artifacts reported from the landowners provide more information about the site. These artifacts include *Olivella* shell beads, a bone pendant, a mussel shell disk, shaft abraders, hematite, end scrapers, drills, beveled knives, pottery, and projectile points (Drass and Turner 1989: 99).

Unaffiliated Late Prehistoric Sites

Blaine County

Oklahoma Archeological Survey archaeologists listed several sites in Blaine County with the potential to have buried deposits dating to the Late Prehistoric. These sites are the Scott-Sherry (34BL1), Paynes Canyon (34BL2), White #1 (34BL3), Payne (34BL4), Wrede (34BL6), Rhymer (34BL8), Kurtz (34BL9), Lespurance (34BL17), Shawver (34BL32), Scheffler (34BL36), and the Carmon (34BL46) (Wyckoff and Brooks 1983: 152-153). These sites are primarily possible village sites with the potential for intact, buried deposits. The Shawver site contains elements that date the site from the Late Archaic through the Late Prehistoric. Two quartzite mauls from private collections may give evidence of utilization of the site during the Late Prehistoric (Drass 2006:11). Another site, 34BL103, contains a Late Prehistoric component as discussed in the Woodland period chapter.

The Farra Canyon in Blaine County continued to be utilized during the Late Prehistoric time period. Eighteen Late Prehistoric projectile points have been recovered from the canyon. Late Prehistoric point types include three Fresno points, one Harrell point, four Young points, six Scallorn points, and one Washita point (Banks 1996: 61). Lithic usage at the canyon changed during the Late Prehistoric from other time periods. Usage of Ogallala quartzite decreased while exotic lithic materials (Alibates, Tecovas, and Florence A and B) increased (Banks 1996: 69). The Late Prehistoric period appears to have the highest increase in usage of the canyon.

Ellis County

Ellis County has several unaffiliated Late Prehistoric sites. Such sites have diagnostic artifacts indicating a Late Prehistoric occupation, but a cultural affiliation cannot be determined. A 1981 listing of archaeological sites identified eight (34EL1, 34EL2, 34EL10, 34EL18, 34EL20, 34EL24, 34EL25, and 34EL28) late prehistoric sites in Ellis County (Wyckoff and Brooks 1983: 111). The late prehistoric sites identified by Wyckoff and Brooks (1983) are primarily camps or village sites with fair to good preservation. One site, the Parker site (34EL10), is a well preserved hamlet or village with preserved burials (Wyckoff and Brooks 1983: 111). Of the sites listed by Wyckoff and Brooks, only the Miller site (34EL25) has had further archaeological investigations conducted.

Archaeological investigations along the Wolf Creek in Ellis County by Richard R. Drass and Christopher Turner as part of the Oklahoma Archeological Survey discovered an additional 12 sites (34EL39, 34EL41, 34EL45, 34EL47, 34EL48, 34EL50, 34EL58, 34EL59, 34EL61, 34EL69, 34EL72, and 34EL74) that can be attributed to Plains Village peoples. These sites had connections to Antelope Creek phase peoples in the Texas panhandle. Drass and Turner (1989) conducted more investigations into the Miller site as previously discussed in the Odessa phase.

Harper County

The 1981 survey of archaeological sites by Wyckoff and Brooks (1983: 113-114) identified two Plains Village sites in Harper County. The two sites (34HP10 and 34HP19) are camp sites with fair preservation recorded for the sites. Other unaffiliated Late Prehistoric sites had been discovered by more archaeological investigations within the county. The Rogers site

had test excavations conducted after the proposed expansion of a road included the site in its right of way. One site, Patsy's Island (34HP70), has possible Plains Village materials. Most of the archaeological material from the site appears to be of Plains Woodland origin as previously discussed during the Woodland period.

The Rogers site, 34HP5, is located about 7.5 miles west and 0.5 miles north of Buffalo, Oklahoma near the headwater of Buffalo Creek. It was originally reported in 1963 and revisited several times. Test excavations began when a proposed county road right-of-way would include the site. Test excavations did not produce any features (Saunders 1985: 24).

Cultural artifacts from the Rogers site include chipped stone artifacts, ceramic sherds, fire cracked rocks, and faunal remains. Chipped stone artifacts include the basal fragment of a Fresno point and the tip of a projectile point, one side scraper fragment, three preforms, three utilized flakes, one core, and two flaked pebbles (Saunders 1985: 30-31). Fire cracked rock consists of eleven specimens and are from sandstone, Day Creek dolomite, and quartzite. Ceramic sherds were classified according first to surface treatment and then by tempering agent. The total ceramic assemblage includes twelve smoothed surface with sand tempered sherds, three smoothed surface with sand and bone tempered sherds, five smoothed surface with shell temper sherds, two smoothed surface with no temper visible sherds, five cordmarked with sand temper sherds, fifteen smoothed-over cordmarked with sand temper, seven smoothed-over cordmarked with sand and shell temper, and one smoothed-over cordmarked with shell temper (Saunders 1985: 37-40). Faunal remains include deer but many of the pieces are too fragmentary to identify. The site is most likely a Late Prehistoric site, but no specific cultural affiliation can be determined. Although no features were found during test excavations, features are suspected west of the county road.

Archaeological investigations by the Oklahoma Archeological Survey archaeologists in Harper County discovered other unaffiliated Plains Village sites. A Plains Village camp, 34HP96, was identified by a single smooth ceramic sherd; an Alibates agatized dolomite flake, and a burned quartzite cobble (Bement et al. 2002: 67). Another Plains Village site, 34HP129, was discovered along the Cimarron River. The sites consists of burned bone and rock, mussel shells, flakes, and a single smooth and sand tempered ceramic sherd (Bement et al. 2002: 81).

The Ruble site (34HP131) was first identified by Oklahoma Archeological Survey archaeologists (Bement et al. 2002) and overlooks the Cimarron River canyon. The site was occupied between A.D. 1230 and 1300. Initial discoveries at the site include a Gary point, two ceramic sherds, bison bone, burned rock, and flakes (Bement et al. 2002: 82). The ceramic sherds consist of one body and one rim sherd. The body sherd is smoothed over cordmarked with sand temper, and the rim sherd has stick or corncob impressed surface and it tempered with crushed gypsum. Further investigations by the Oklahoma Archeological Survey discovered small amounts of daub at the site (McKay et al. 2004: 56). The site has been significant altered due to historic agricultural practices.

A third archaeological site that was investigated by Oklahoma Archeological Survey (Bement et al. 2002 and McKay et al. 2004) is the Smith #2 site, 34HP138. The site is significant in that it represents the time period between the Late Prehistoric and the Protohistoric as well as showing relationships between people in northwest Oklahoma and the surrounding areas. The site consists of the remnants of a burned structure and a storage pit containing some exotic artifacts. Corn cobs and kernels from the storage pit were radiocarbon dated to A.D. 1400 to 1450 (Beta-195762 and Beta-109107) (McKay and Bement 2005: 10). The peoples occupying the site relied on a dual economy of hunting, cultivating corn, and gathering wild plant resources.

A house structure was identified by post molds and has an associated clay lined pit nearby (McKay et al. 2004: 82). The lack of a significant midden implies that the Smith #2 site was not occupied for an extended period of time. Exotic materials were discovered in the pit at the site. A bifacially knapped stone hoe was discovered in the pit as well as Kansas pipestone and Flint Hills chert indicate that the peoples occupying the site were from or had connections to peoples in Kansas (McKay and Bement 2005: 10).

Woodward County

The initial 1981 survey of archaeological sites by the Oklahoma Archeological Survey (Wyckoff and Brooks 1983: 117) listed two late prehistoric sites, 34WD1 and 34WD12, in Woodward County that needed further archaeological investigations. The Richards site, 34WD1, was first reported by James Shaeffer (1965). The site is located about 11.5 miles north of Mooreland, Oklahoma. Total items found include one awl, three blade fragments, three small shoppers, one quartzite knife, one metate, four end scrapers, and nine side scrapers (Shaeffer 1965: 129, 131). No pottery was reported for the site.

Another late prehistoric site discovered in Woodward County is the Trader's Creek site, 34WD5. Little information about this site has been published. The site is probably a large seasonal camp (Gifford 2005: 36). Artifacts discovered at the site include cordmarked pottery and lithic material consisting mainly of Day Creek chert (Drass 2003: 14). Evidence of horticulture exists at the site. Corn, sunflower, maygrass, and beans were recovered from the site (Drass 2008). Radiocarbon samples were taken from a pit feature and a hearth at the Trader's creek site. They date the site to around A.D. 1435 (Gifford 2005: 36).

Archeological investigations by Oklahoma Archeological Survey archaeologists in Major and Woodward Counties discovered a Late Prehistoric site, 34WD88, in Woodward County. The site is located on the top of an isolated butte overlooking the confluence of Sand Creek and the Cimarron River (Bartlett et al. 1993: 25). Artifacts recovered include three arrow point fragments, one drill fragment, three unifaces, one groundstone fragment, two pieces of fire-cracked rock, and forty-two flakes. Although no ceramic sherds were recovered, the site is most likely represents late prehistoric usage.

A burial site is also located in Woodward County. The Fred Loomis, 34WD12, site is located on a hill overlooking Doe Creek, a tributary of the Cimarron River, and has ten recorded burials. Part of the site had been destroyed by local residents digging in the mound. The burials were shallow and not disturbed by other burials indicating that the location of each burial was known and care was taken to not disturb older burials (Kay County Chapter 1963: 124). There does not appear to be a pattern to the burial positions. Some individuals were interred face-down in an extended position while others were tightly flexed and others were placed on their back with the legs semi-flexed (Kay County Chapter 1963). Burial orientation also varies at the site. Burial 4 is oriented north-south with the head in the south; burial 6 is on a north-south axis with the head facing north; and burial 7 is laying east-west with the head in the east (Kay County Chapter 1963: 125). Several of the burials had burial artifacts associated with them. Burial 1 contained three Olivella shell beads; burial 4 had one Olivella shell bead; burial 5 contained six Olivella shell beads; burial 6 had one triangular projectile point and a bison tibia digging stick tip; burial 8 had a turquoise pendant and a microcline pendant (Kay County Chapter 1963: 126). The presence of Olivella shell beads in the burials is mostly seen in Upper Canark burials rather than in other groups in eastern Oklahoma. The lack of pottery included in burials is uncommon,

but may be attributed to the disturbance caused by local diggers. Although no cultural affiliation can be assigned, it is likely that the burials were from a group of people related to Upper Canark Variant related peoples in Woodward County. More archaeological work is needed to better understand who was burying their dead at the Fred Loomis site.

Garfield County

Archaeological investigations in Garfield County have produced evidence of several late prehistoric sites. Charles S. Wallis, Jr. (1979) listed the late prehistoric archaeological sites in Garfield County. Two sites (34GF1 and 34GF34) were previously recorded sites. These two sites contain Washita and Fresno projectile points, as well as flakes, and 34GF1 has a maul, abrader, yellow ochre, worked bone, a grooved maul, an a hammerstone (Wallis, Jr. 1979: 6-7). Three other late prehistoric sites (34GF40, 34GF43, and 34GF45) were initially recorded by Wallis, Jr. (1979).

Although listed as an unknown prehistoric site by Wallis, Jr. (1979), 34GF39 was recorded as a late prehistoric site by Wyckoff and Brooks (1983). Materials for the site include hammerstones, cores, a biface, and a "Plains end scraper" (Wallis, Jr. 1979: 15-16). Further testing of the site in the spring of 1979 produced more flakes but little other archaeological material. Most of the lithic artifacts were obtained from local sources at 34GF39, but Alibates and Kay County chert was observed at the site.

Another site, 34GF40, identified by Wallis, Jr. also exhibits evidence of being a late prehistoric site. The site is located along the Upper Red Rock Creek. Surface collection at the

site produced artifacts (mainly flakes) made from Ogallala quartzite, Dog Creek chert, and Kay County chert (Wallis, Jr. 1979: 19-21).

The fourth site listed by Wallis, Jr. (1979) is 34GF43. This site is also listed as a by Wyckoff and Brooks (1983) as needing further archaeological testing. Surface materials were recovered from the site and include flakes, a hammerstone, an arrow point perform tip, and a piece of burned sandstone (Wallis, Jr. 1979: 29).

Further archaeological investigations at 34GF43 produced other archaeological material. Six sherds were recovered. They are sand tempered and from one vessel (Wallis, Jr. 1979: 57). No mention was made of any surface treatment or decoration. Other artifacts uncovered during the second investigation include more flakes, a projectile point fragment, three bone fragments (possibly of bison and deer), and a charcoal piece (Wallis, Jr. 1979: 59). No other diagnostic materials were uncovered.

The last Late Prehistoric site listed by Wallis, Jr. (1979) is located on a low point of a high ridgeline. The site is heavily eroded and only a small amount of surface materials were collected. Artifacts include flakes, a Harrell projectile point, and a biface (Wallis, Jr.1979: 33). The most common lithic material is Ogallala quartzite (38.5%) followed by Alibates agatized dolomite (23.1%). No further work was conducted at the site due to the deflated nature of the site.

Grant County

Grant County initially had little published material about the Late Prehistoric time period. Wyckoff and Brooks (1983: 118-119) list five Plains Village sites within the county that could use further investigations. These five sites are the Muegge site (34GT1), White (34GT2), Hunter (34GT6), Deer Creek (34GT7), and the Stalker site (34GT9). Each of these sites are possible villages but further investigations are required to determine their significance. The Hunter site (34GT6) was discussed previously as most of the cultural materials are from the Archaic period. Recent investigations along the Salt Fork of the Arkansas River have provided more information about Late Prehistoric sites in this county.

Archaeological investigations along the Salt Fork of the Arkansas River by the Oklahoma Archeological Survey in 1999 and 2000 (Drass 2001) discovered or reexamined known Late Prehistoric sites in Grant County. The Porter site (34GT3) consists of three areas of cultural concentration. The three areas were labeled Area A-C. Area C represents a separate camp site, but since it was included in the site in the original site file, it was included with the site (Drass 2001: 90). The site consists of a Late Prehistoric village and Area C is a Late Archaic/Woodland base camp. Lithic materials recovered include a base fragment of a Williams dart point, four flake scrapers, flakes, burned sandstone, two grinding basin fragments, one arrow point fragment, and one end scraper (Drass 2001: 91-92). A local collector, Roy Patterson, collected archaeological materials from Area A of the site. Lithic materials collected by Patterson include sixteen Fresno points, twelve Washita points, one Harrell point, fifty-six corner-notched arrow points, forty-three arrow point fragments, one side-notched dart point, twenty-three corner-notched darts, five Garv-like darts, one unknown dart, twenty-six dart fragments, nine beveled knives, drills, sixty scrapers, 164 bifaces, two gouges, five cores, 211 utilized flakes, thirty

flakes, two gravers, and eight tested cobbles (Drass 2001: 52). No ceramics were found in 1999/2000, but Patterson collected 226 sherds from at least 10 vessels from the site. Cordmarked and smoothed-over cordmarked pottery consists of 82.7% of the sherds (Drass 2001: 92). Most of the sherds are stone and sand tempered, but sand and bone, sand, and bone tempers are also represented. Smooth sherds are also present with most sherds exhibiting a bone temper, but stone and sand and bone and sand tempers also seen (Drass 2001: 93). Faunal material collected includes three bone fragments, one bone fragment, and one mussel shell fragment (Drass 2001: 90-97).

A second site investigated by the Oklahoma Archeological Survey is the Hobbs site, 34GT4. The site consists of two areas, Area A and B, which may represent two distinct sites but were included together on the site form. Most of the artifacts come from the collection of Roy Patterson. Patterson collected Scallorn, Washita, Harrell, and Fresno points as well as forty-one scrapers, one triangular knife, one perforator, seventeen biface fragments, nine mano fragments, and nine ground stone fragments (Drass 2001: 98) from Area A. Other materials collected by Patterson from Area A include three smooth sherds tempered with bone/sand, bone, and bone/limestone. Investigations by Oklahoma Archeological Survey archaeologists uncovered one corner-notched dart fragment, one biface fragment, one core/scrapper, and flakes (Drass 2001: 99). Area B materials consist of five cobbles, a corner-notched dart point midsection, two biface fragments, a flake scraper, and flakes (Drass 2001: 98-99).

A third site, the Spoon site (34GT5), was revisited by the Oklahoma Archeological Survey. The site is a Woodland/ Late Prehistoric base camp. The site is divided into three areas, Area A-C, based upon concentrations of artifacts found. Artifacts found at the site include projectile points, pottery sherds, ground stone fragments, and obsidian. Lithic materials for the

site include three Bulverde points, eight Williams/Marcos points, two Palmillas points, five Ensor points, one possible Ellis point, four corner-notched dart points, seventeen dart bases, one corner-notched dart base, eight dart point fragments, two dart point preforms, one arrow point preform, twenty-eight arrow point tips, one Shadid point, five Scallorn points, seven corner-notched arrow points, six side-notched arrow points, three arrow points, twenty-one Washita points, eighteen Harrell Points, nine Fresno points, eight ovate knives, ten diamond beveled knives, six beveled knives, four pipe reamers, two expanding base drills, six drill fragments, six scrapers, two choppers, and four cores (Drass 2001: 101). A total of 99 sherds were recovered from the site. The pottery consists of primarily smooth sherds with bone, stone, or a combination of the two tempers. Twenty sherds were cordmarked with primarily bone temper (Drass 2001: 100).

Another site, 34GT8, is located on a hill east of a small drainage that empties into Deadman Creek. It is a multi-component camp site with components of Late Archaic, Woodland, and Late Prehistoric periods. Artifacts recovered from the site include corner-notched dart points, a Gary point, one cordmarked sherd, a double-bitted axe, drill fragments, scrapers, gouges, cobbles, flakes, manos, a Scallorn point, and biface fragments (Drass 2001: 102-103).

The Stalker site, 34GT9, is a Late Prehistoric site on a terrace about ¼ of a mile north of Wild Horse Creek. The creek may have run at the base of the terrace at one time. The site was previously partially excavated by Glen Rose of Philips University and Don Wyckoff (Drass 2001: 105). Artifacts discovered during the excavations include 368 flakes, fourteen utilized flakes, one core, seven bifaces, three scrapers, one arrow point preform, nine arrow points, one ground stone fragment, eight smooth pottery sherds, and forty cordmarked sherds (Drass 2001:

108). Reexamination in 2000 produced more archaeological materials for the site. The materials discovered in 2000 include an arrow point midsection, a flake scraper, flakes, cobbles, a burned bone fragment, sandstone fragments, and burned sandstone fragments.

The Tebow Cut site, 34GT31, is located on a cut bank on the north side of Polecat Creek. The site is possibly a Late Prehistoric site, but no diagnostic artifacts have been found. Archaeological materials found include end scrapers, a broken side scraper, a modified flake scraper, flake knives, a flake scraper, and flakes (Drass 2001: 111-112). Bone fragments are also present at the site. Bison, deer, and other large mammals are represented in the faunal assemblage at the site. The site also contains an early 20th century trash dump.

The Frank Kirby site, 34GT32, is located on a low rise on a terrace north and west of a bend in Pond Creek. It is a Late Prehistoric site. No pottery was found, but the site may have been more than a temporary camp based upon the presence of manos (Drass 2001: 113). Archaeological items for the site consists of a Fresno point, biface fragments, modified flake scrapers, a flake knife, an unshaped bifacial mano, sandstone pieces, mammal bone fragments, a large mammal tooth fragment, a small burned bone fragments, and small bone fragments (Drass 2001: 114).

Major County

Major County has had only a minimal amount of archaeological investigations. Wyckoff and Brooks (1983: 123) list one site in the county that might contain buried archaeological materials. The Davis site, 34MJ7, potentially contains Plains Village materials with some intact deposits. Archaeologists with the Oklahoma Archeological Survey conducted a pedestrian

survey investigating promontory usage in western Oklahoma and discovered four sites in Major County. None of the sites were diagnostic of the Plains Village time period (Bartlett et al. 1993).

A burial site exists in Major County. James Howard and Donald Brown (1973) describe the adult male that comprised the site. The man was buried with 307 disc-shaped turquoise beads and 209 *Olivella* shell beads (Howard and Brown 1973: 207). The burial was similar to those found nearby at the Fred Loomis site.

Woods County

Woods County has several known late prehistoric sites, and some sites have had excavations conducted. Wyckoff and Brooks (1983: 129-130) list seven sites with potential for Plains Village cultural materials. The Morris site (34WO1) is a Plains Village site with hearths and habitation debris. The A. Long site (34WO4) has evidence for occupation during the Paleo-Indian, Woodland, and Plains Village periods. The site is an open camp site with the potential to have habitation features (Wyckoff and Brooks 1983: 130). The Wilson site (34WO10) is a Plains Village hamlet or village site with preserved habitation remains. Two sites, the Anderson Creek #2 (34WO32) and Williams (34WO60), are both Plains Village sites with potentially well-preserved archaeological deposits (Wyckoff and Brooks 1983: 130). The Carlson#1 site (34WO34) is a Woodland or Plains Village camp or workshop. The Nelson site (34WO57) was occupied during the Archaic and Plains Village. It is a camp site that was visited and inhabited several times

The Wilson and Nelson sites were revisited by Oklahoma Survey archaeologists in 1998. More information about the sites was discovered. The Wilson site is located on a sandy ridge

overlooking the confluence of the Eagle Chief Creek and an unnamed tributary coming in from the north (Drass 1999: 135). Artifacts previously discovered at the site include lithic tools, pottery, and a grinding basin. Further investigation discovered a possible post mold, but no other evidence of a structure was present. Chipped stone tools represent most of the artifacts found at the site. None of the chipped stone artifacts were diagnostic, but one chipped stone tool fragment may be the basal end of a dart point. Lithic artifacts were dominated by non-local lithic sources. Florence A and Alibates agatized dolomite represent over 50% of the collection (Drass 1999: 138). Ceramics at the site were collected with all of the sherds being cordmarked with bone temper. The site is a repeatedly utilized camp site with a possible structure. Dart point fragments indicate occupation possibly beginning in the Late Archaic through the Late Prehistoric.

The Nelson site is located about 250 meters southwest of the Wilson site. It is on a high terrace just east of Eagle Chief Creek (Drass 1999: 135). The site has two areas of usage. Materials collected from Area A include one Williams point, two dart tip fragments, three side scrapers, five cordmarked sherds with sand, rock, caliche, and bone temper, one deer and bison bone, a round grinding basin, a grinding basin fragment, one unifacial mano fragment, and one boatstone (Drass 1999: 145). Area B is located 50 meters north of Area A. All observed ceramics and chipped stone tools were collected and a sample of other lithic debitage was collected. Previous archaeological collecting at the site provided information about the past usage of the site. Included in the artifacts from the Lois Albert collection are scrapers, projectile points, ceramic rim and body sherds, a mano and metate, bone tools, an elbow pipe fragment, and an atlatl weight fragment (Drass 1999: 150). The ceramics from the Albert collection were cordmarked with two of the rim sherds exhibiting fingernail punctations and one a pinched lip.

Nelson ceramics are similar to those at the Wilson site. Twenty-one total ceramic sherds were collected. Thirteen sherds were cordmarked, one is missing an exterior surface, and the others are smooth surfaced (Drass 1999: 146). All of the sherds have a burned bone temper. The ceramic assemblage most resembles that of the Bluff Creek complex in southern Kansas.

Chipped stone tools from the Nelson site include Fresno points, a Washita point, scrapers, thin biface fragments, a wedge-like tool, and a chopper (Drass 1999). Lithic sources are primarily Florence A (46.4%). Other lithic sources include locally available quartzite, Day Creek chert, various unidentified cherts, and Alibates agatized dolomite. The predominance of the use of Florence A chert also indicates that peoples occupying the site may have had connections to peoples in Kansas.

The Shadid site, 34WO45, is a well documented Plains Village site in Woods County. The site was the focus of the Oklahoma Anthropological Society Spring Dig in 1985. It is located on a prominent terrace overlooking Anderson Creek (Gifford 2005: 13). It may be a village site but the lack of evidence for house structures indicates that the site was probably a camp or hamlet. Some dart points were discovered at the site and may represent an earlier occupation of the site (Gifford 2005: 37). Artifacts discovered at the Shadid site include corner-notched arrow points, dart points, scrapers, grinding stones, milling basins, flakes, bone tools, bone trash, cordmarked pottery, daub, and plant remains. The ceramic sherds have surface treatments including cordmarking, smoothed-over cordmarked, and smoothed surfaces (Gifford 2005: 32). Tempers for the sherds vary. Tempering agents include shell and stone, sand, stone, sand and shell, and sand and stone (Gifford 2005: 32). The use of shell and stone temper is common for Turkey Creek phase ceramics. Evidence for corn exists at the site, but it may have

been brought to the site by the occupants as no evidence for digging implements has been uncovered.

Alfalfa, Dewey, and Kingfisher Counties

No Late Prehistoric sites were identified by Wyckoff and Brooks (1983) as needing further study. Other archaeological investigations have not provided much information about the Late Prehistoric in these three counties. Wallis, Jr. (1983: 16-17) lists one site, 34KG21, in Kingfisher County as having undiagnostic prehistoric and Late Prehistoric debris. No other sites were listed or contained diagnostic artifacts in Alfalfa, Dewey, and Kingfisher Counties.

Summary

The Late Prehistoric, while being one of the best recorded and identifiable time periods, still presents many questions relating to the peoples occupying northwestern and north central Oklahoma. The boundaries of known cultural groups on the Southern Great Plains extend out to and through the region. Many sites have been identified but few have been affiliated with any cultural group. Many of the sites in the Southern Plains region were occupied at roughly the same time. Evidence of trade can be seen in the ceramic record with small samples of pottery taken from one site being similar to nearby cultural groups as well as the usage of exotic lithic materials at various sites. More archaeological work in the region could provide additional information about how these cultural groups interacted with each other. Many of the archaeological sites discovered in the region cannot be assigned a cultural designation as few

diagnostic artifacts have been recovered from the site. Another problem of the Late Prehistoric is the reason why most of the cultures appear to disappear around A.D. 1450. This question will be addressed in the next chapter about the start of the Protohistoric.

CHAPTER 8

THE PROTOHISTORIC AND EARLY EUROPEAN EXPLOERERS

The Protohistoric time period in Oklahoma relates to the period when cultures in the state first began encountering European cultures. The Protohistoric represents a time of dynamic cultural change. Hofman (1989b: 91) describes the Protohistoric beginning with the Coronado's first appearance onto the Southern Plains in 1541 and after when there was limited European contact with the Southern Plains. Euro-American trade goods begin appearing in the archaeological record at this time. European explorers traveled through the project area but provided little information about the peoples occupying the landscape. Trade increased between Plains peoples and the southwest pueblos and to the southeast during this time period.

The Protohistoric period is represented by two cultures in western Oklahoma. These two groups are the Edwards and Wheeler complexes. Much debate exists about the validity of the separation of these two cultural manifestations. Hofman (1984, 1989b) suggests that the separation be maintained. While Drass and Baugh (1997) argue that the Edwards and Wheeler complexes can be designated as a single cultural manifestation called the Wheeler phase. No Edwards or Wheeler complex sites have been identified within the project area. The main distribution of Edwards and Wheeler complex sites exists south of the immediate project area in western and southwestern Oklahoma.

A third cultural group, the protohistoric Wichita, has excavated sites just east of the project area. These peoples are the ancestors of the Wichita. Protohistoric Wichita sites stretch

from northern Oklahoma, the Bryson-Paddock (34KA5) and Deer Creek (34KA3) sites, to southern Oklahoma along the Red River, the Longest (34JF1) site.

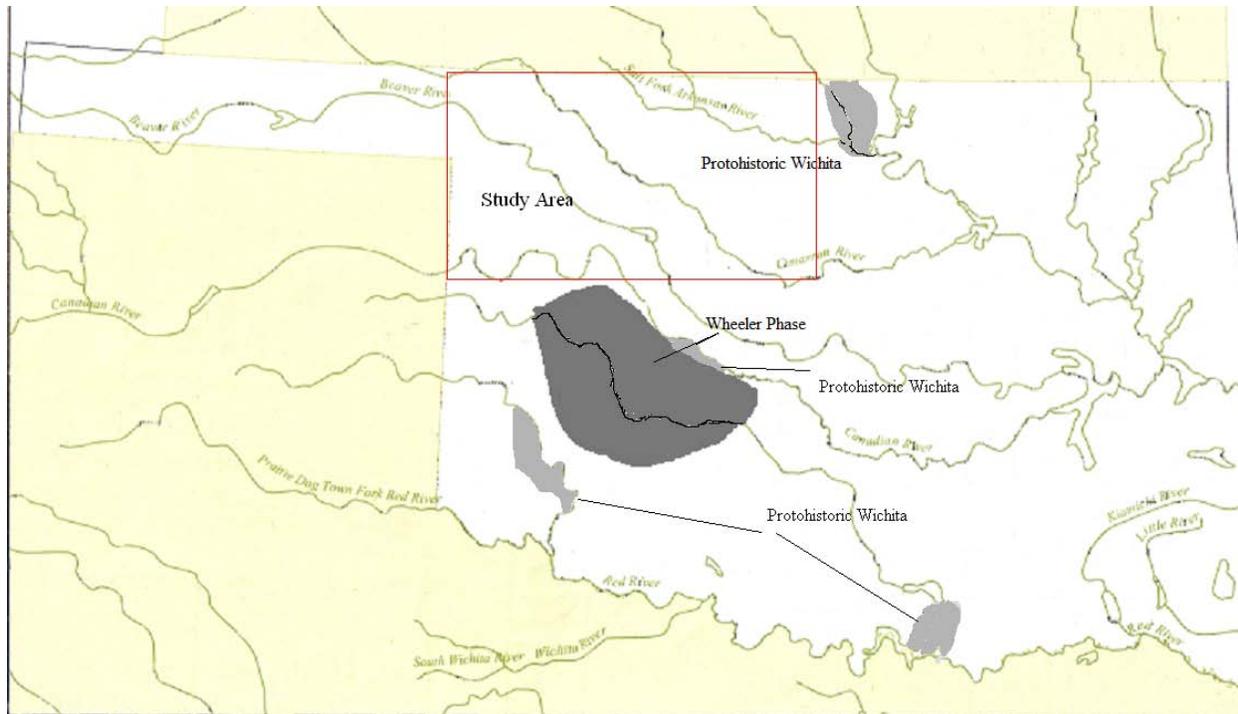


Figure 16. Protohistoric cultures on the Southern Plains.

Population Changes on the Southern Plains

Beginning at around A.D. 1450, cultures on the Southern Plains begin changing or disappearing. The end of the Late Prehistoric period tends to occur at about the same time period across several cultural groups on the Southern Plains. Zimms complex sites date to about 1425. The Antelope Creek phase sites were occupied until around A.D. 1500. Odessa phase sites date to around A.D. 1475. Turkey Creek and Washita River phase sites disappear at about A.D. 1450. Archaeological evidence in the form of ceramics indicates that the Turkey Creek and Washita River phases may have given rise to the Wheeler phase in the protohistoric period. The question about what happened to the populations and cultures on the Southern Plains during the Plains Village period has challenged archaeologists for decades.

One theory is that climate change forced peoples to abandon marginal areas of their territories. Baerreis and Bryson (1965) suggest that this has happened before on the Plains and may be the reason for the abandonment of some areas on the Southern Plains. Krieger (1946: 31, 37) states that some Antelope Creek sites exhibit signs of windblown dust filled the site just before abandonment.

A second theory is that Apachean groups began moving onto the Southern Plains at about this time. The Apachean groups arrived on the Southern Plains at an undetermined time and stayed in that area until 1725 (Hofman 1989b: 91). These people dominated the region and possibly forced the migration of the peoples previously occupying the Southern Plains.

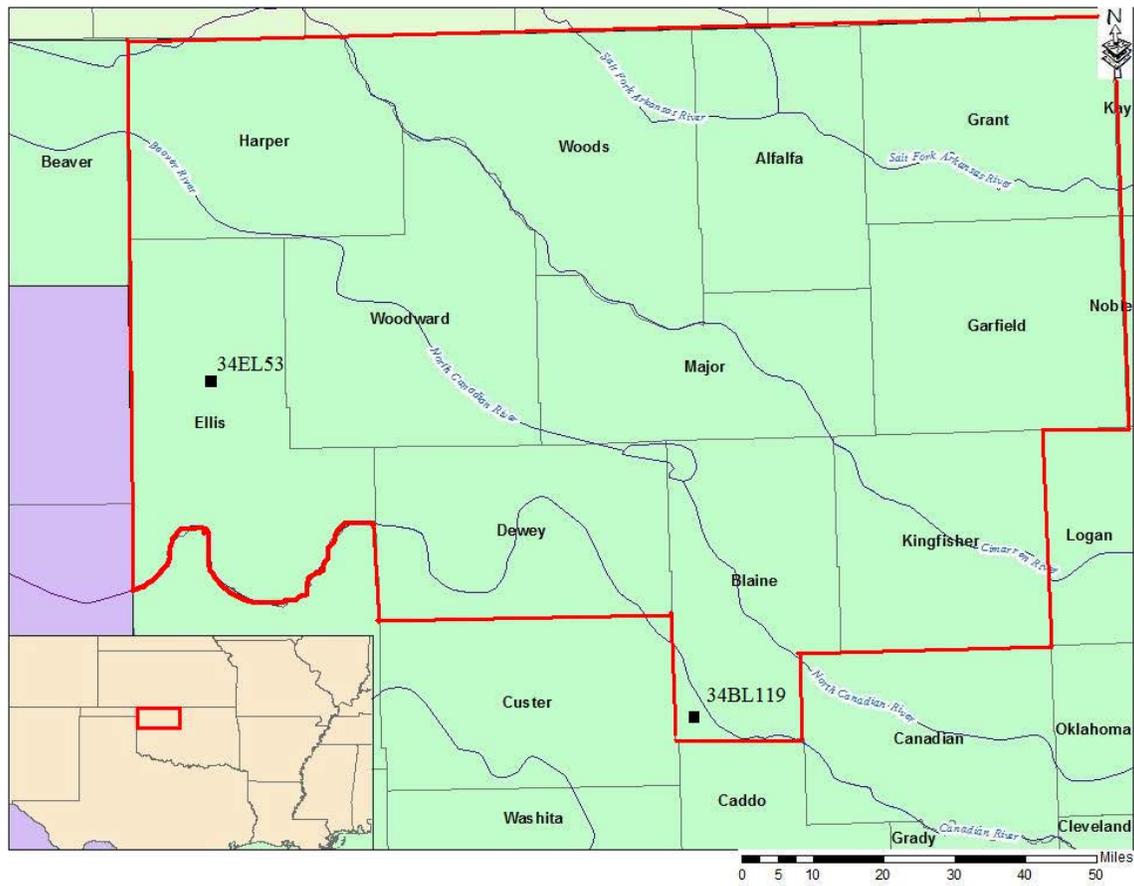


Figure 17. Protohistoric sites in northwestern Oklahoma.

Wheeler Complex

The Wheeler complex was first defined by Bell and Bastion (1967) based upon the archaeological sites in Caddo, Canadian, and Custer counties in western Oklahoma.

Little information can be inferred about the settlement patterns of the Wheeler complex as only three known Wheeler complex sites exist. The Wheeler complex has been roughly dated from A.D. 1650 to 1725.

Wheeler complex ceramics are characteristic of the Protohistoric peoples of the Southern Plains. Wheel complex pottery is dominated by sand tempered pottery called Edwards Plain (Drass and Baugh 1997: 184). Decorations are very rare on Edwards Plain ceramics. The decorations that do occur are incised lines on the rims (Drass and Baugh 1997: 184). Surface treatment tends to be smooth but some brushed treatments do occur. Another type of pottery found at Wheel complex sites is Little Deer Plain and Decorated. Little Deer Plain is a grog or clay tempered ceramic. Decorations include appliquéd strips, brush marks, brushed-punctated impressions, wipe scratches, incised and punctated indentations, trailed lines, and smeared corrugation that creates a neck-banding effect (Drass and Baugh 1997: 186).

Lithic tools for the Wheeler complex are typical Southern Plains tools. Chipped stone tools include small triangular projectile points (Fresno and Washita), very large planoconvex end and side scrapers, flake knives, expanding base drills, ensiform pipe reamers, and diamond-beveled knives and wedges (Drass and Baugh 1997: 186-187). Most of the tools were produced from Florence A chert. Frequencies of Alibates and obsidian are much lower for Wheeler complex sites than is seen during the Edwards complex (Hofman 1984: 356).

Bone tools occur at Wheeler complex sites. The most distinctive bone artifact is the serrated bison metatarsal flesher (Drass and Baugh 1997: 187). Other bone tools include awls, bison tibia digging stick tips, and polished bison scapula hoe fragments.

Trade and Euro-American artifacts are also represented at Wheeler complex sites. Southwestern items include tubular pipes similar to those at the Pecos pueblo, Ocate Micaceous sherds, and Glazed sherds (Drass Baugh 1997: 186). Euro-American trade items have also been discovered and include gunflints, musket balls, and blue glass trade beads.

Edwards Complex

The Edwards complex was defined by Hofman (1984) based upon the materials found at four sites in Greer, Beckham, Roger Mills, and Washita counties. Artifact assemblages are similar to those of the Wheeler complex sites. The complex dates to about A.D. 1500 to 1650. Little information is known about Edwards complex sites. Of the excavated sites, most appear to be large, semi-sedentary villages (Drass and Baugh 1997: 191). Features common at the sites consist of shallow basin pits, hearths, and postmolds. Two Edwards complex sites exhibit evidence of circular ditches 50 meters in diameter (Drass and Baugh 1997: 192). A decrease in horticultural activities appears during the Edwards complex and can be seen in the decreasing frequency of horticultural tools and an increase in bison bones at sites.

Ceramic artifacts are typically sand tempered Edwards Plain. Other ceramic types include Edwards Plain with calcium carbonates temper mixed with sand or mica similar to Washita River and Turkey Creek phase pottery and shell tempered Nocona Plain ceramics (Drass and Baugh 1997: 189). Decorations, while uncommon, include notched rims, fingernail

punctates, and some appliqué decorations. Pottery from the Edwards complex and the Washita River and Turkey Creek phases represents a cultural continuity through time from the Late Prehistoric to the Protohistoric (Drass and Baugh 1997: 189).

Lithic assemblage for the Edwards complex includes chipped stone and ground stone artifacts. Chipped stone artifacts consist of small triangular projectile points (Fresno, Washita, Harrell, and Garza), large planoconvex end scrapers often associated with the Wheeler complex as found but not common, biface knives, diamond-beveled knives, expanding base drills, and ensiform pipe reamers (Drass and Baugh 1997). Alibates is the most common lithic material for chipped stone artifacts, but other lithic materials include Florence A, Edwards chert, and obsidian from the Jemez Mountains area. Ground stone tools include grooved abraders, grinding stones, and metates (Hofman 1984: 352).

Bone and shell artifacts occur in but are not abundant. Bone artifacts include awls, beads, bison scapula hoes, and tibia digging stick tips (Drass and Baugh 1997: 191). Distinctive serrated bison metatarsal fleshers have also been found at Edwards complex sites.

Trade items are reported for the Edwards complex. Southwest trade items are the most common, but items from the Central Plains and the southeast have been documented. Southwest trade items include turquoise beads and pendants, *Olivella* shell beads, tubular Pecos-style pipe fragments, and obsidian implements and debitage (Drass and Baugh 1997: 190). Red pipestone found at the Duncan and Goodwin-Baker sites have been sourced to Kansas. Contact or trade was occurring with the Red River Caddo as seen with the discovery of southeastern ceramic types associated with the McCurtain, Texarkana, and/or Titus foci (Drass and Baugh 1997: 190).

Wheeler Phase

The Wheeler phase was introduced by Baugh (1986) to incorporate the Wheeler and Edwards complexes. The combining of the two complexes is the result of finding artifacts at the Little Deer site that exhibit signs of both complexes. Baugh (1986) states that a “clinal variation” in assemblages is exhibited from east to west. Most of the cultural material is shared between the two complexes. Items that are similar include ceramic wares, expanding base drills, knives, ensiform pipe reamers, end and side scrapers, projectile point types, bone beads and awls, serrated fleshers, and bison horticultural tools (Drass and Baugh 1997: 195).

The dispute about the need for a separate Wheeler complex is based upon a few key arguments. One argument is the type of lithic sources used by the two complexes. Drass and Baugh (1997: 197) argue that some sites may have higher frequencies of Florence A because they are geographically closer to the source. A second argument is the greater frequency of southwestern ceramics and southeastern Caddoan pottery present at Edwards complex sites (Hofman 1984: 357). A third argument proposed by Hofman (1984) is that the Wheeler complex includes more Euro-American trade goods. Drass and Baugh (1997) counter that contact with a new culture, and the inclusion of their cultural materials, does not necessitate a new cultural complex be designated. A fourth argument by Hofman (1984) is that the Wheeler complex occurs later than the Edwards complex. The Wheeler complex dates come from radiocarbon dating of the Little Deer site. Drass and Baugh (1997) contend that the radiocarbon dates for the Little Deer site were taken from surface samples and do not include samples from subsurface, earlier occupations of the site.

The debate about the validity of the Wheeler phase in western Oklahoma has continued, but current trends tend to accept the validity of this designation (Baugh 2009). More protohistoric sites must be excavated to fully understand the relationships of the peoples in Oklahoma.

Protohistoric Wichita

The Wichita arrived in Oklahoma from their settlements along the Arkansas sometime before A.D. 1750. Two sites in Kay County are attributed to this migration into Oklahoma. These two sites are the Bryson-Paddock site (34KA5) and the Deer Creek site (34KA3). The term “Wichita” used here does not just represent the Wichita tribe but other closely affiliated tribes of the Wichita including the “Iscari, Taovayas, Tawakoni, Waco, and Kichai” (Bell 1984: 363). While occupying the sites in Oklahoma, the Wichita were heavily involved in trade with the French (Hofman 1989: 95). Traded items include hides, furs, and salt for items such as guns, gunflints, kettles, mirrors, beads, and iron tools.

The Wichita also produced their own cultural materials. Artifacts associated with the protohistoric Wichita consist of large end and side scrapers made from Florence A chert, triangular unnotched projectile points, and expanded base drills. Hofman (1989b: 95) postulates that the Wichita might have controlled access to the resources of Florence cherts for several generations. Bone artifacts include possible projectile points, weaving tools, awls, and hoes. Ceramics of the Wichita consist of shell tempered plain sherds. Some stamped pottery is also present as well as occasional incised sherds.

Wichita subsistence economy relied on horticulture and hunting of large and small game. Remains of corn, beans, and squash have been identified at Wichita sites. Large mammals represented include bison and deer while small animals were also hunted along with birds, turtles, fish, and shellfish (Hofman 1989: 95).

Around 1760, the Wichita abandoned their settlements along the Arkansas and moved to the Red River in southeast Oklahoma. A variety of factors may have caused the Wichita to move including increased pressure and violence by the Osage and better access to French traders along the Red River drainage (Bell 1984: 377-378).

Unaffiliated Protohistoric Sites

Few Protohistoric sites exist within the project area. None have been classified as part of a known cultural group. Only three counties in the project area have identified Protohistoric sites. These three counties are Blaine, Ellis, and Harper.

Blaine County

Two possible Protohistoric sites have been discovered in Blaine County. The first site (34BL119) is located on a terrace west of the Canadian River. A few artifacts were seen during a pedestrian survey, but private collections contain Fresno points made from Florence A chert and Alibates (Drass 2003: 29).

The second site is on the Roman Nose State Park. The site (34BL100) is classified as a protohistoric Cheyenne winter camp. The site is the location of the homestead of Henry C. Roman Nose (Marshall 1999: 8). A few features associated with the homestead are still visible.

Ellis County

Two possible Protohistoric sites were identified in Ellis County by a pedestrian survey by Drass and Turner (1989). The first site is the Brown II site (34EL53). The site is located on a prominent ridge known locally as “Indian Hills”. It consists of a possible tipi ring and a lithic scatter. Other cultural material has been reported coming from Indian Hill including a human skeleton, glass beads, and projectile points (Drass and Turner 1989: 130).

The second site is the Welty site (34EL75). It is a Protohistoric site with a possible Late Prehistoric occupation. The site is located along a diversion terrace constructed around the edge of a ridge. Rock Creek is 80 meters to the south of the site. John Welty collected prehistoric materials from the site. Cultural materials reported by Mr. Welty include a metal projectile point, scrapers, flakes, bone, catlinite, ground stone, and potter (Drass and Turner 1989: 164). Most of the site appeared to be undisturbed.

Harper County

Only a brief mention as part of the archaeological resource listing by Wyckoff and Brooks (1983: 113) is made of the Protohistoric occupation in Harper County. Doby Spring

(34HP1) is a multi-component site in Harper County with several occupations dating back to the Paleoindian period.

European Contact in Northern Oklahoma

Early exploration and contact with Europeans was minimal in northwestern Oklahoma. The earliest European contact with the peoples of Oklahoma began in 1541 with the expedition of Francisco Vásquez de Coronado. The exact route of Coronado through Oklahoma is not known. Coronado traveled through western Oklahoma, most likely passing through Beaver County in the Oklahoma panhandle, on his way to Quivera on the Arkansas River (Goins and Gable 2006: 38). Coronado was looking for the “seven Cities of Gold” and upon not finding what he was looking for, returned to New Mexico. Little information about peoples encountered by Coronado except those at Quivira exists.

Later, another Spanish explorer traveled through northwestern Oklahoma. In 1601, Juan de Oñate traveled along the Canadian River valley and into Kansas (Drass 2001: 26). Oñate was hoping to complete the quest for riches started by Coronado. After reaching the villages of the Wichita in Kansas, he determined that Coronado was correct in stating that no riches existed in the area.

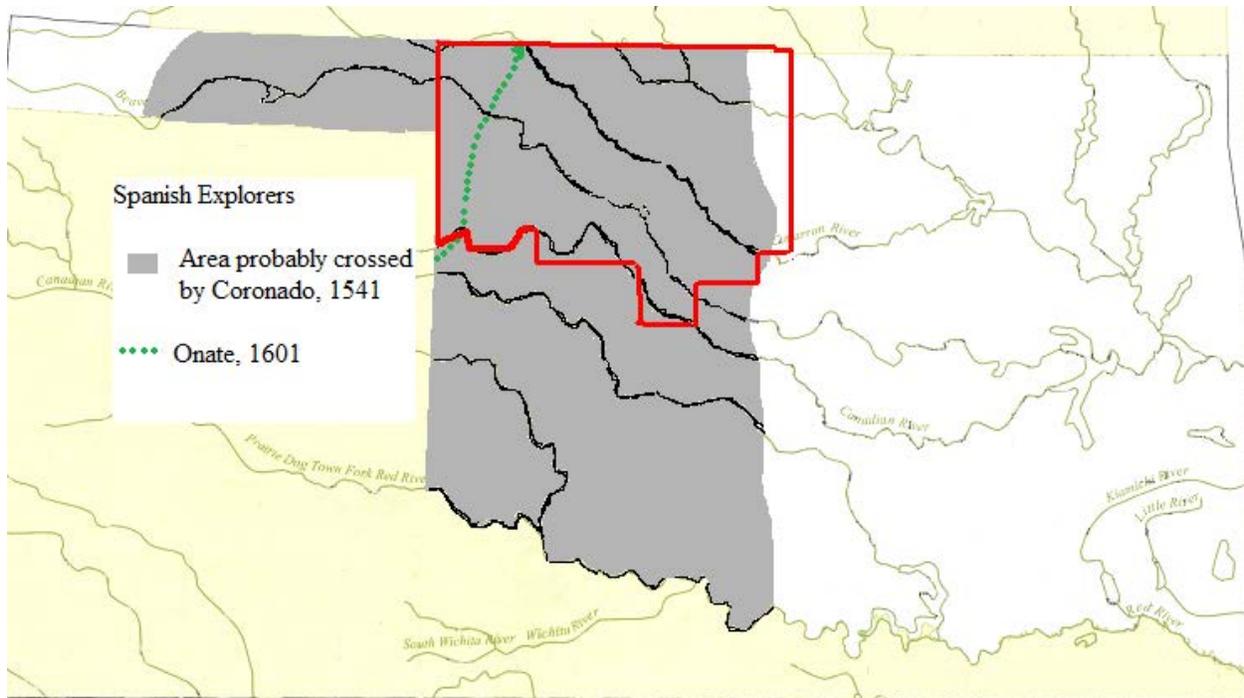


Figure 18. Routes of Spanish explorers in northwest Oklahoma.

The French began having a presence in Oklahoma beginning in the 1700s. The French wanted trading partners from peoples living along the major waterways in the state. In particular, the French traded with the Wichita and Osage tribes (Goins and Gable 2006: 38). The French had traders in Oklahoma until the area's purchase by the United States government as part of the Louisiana Purchase in 1803.

The Louisiana Purchase provided opportunities for more exploration by Euro-Americans looking for access to furs and other trade goods. American explorers traveled through northwestern Oklahoma. The first American explorer in the area was George C. Sibley. Sibley was looking for salt resources. He left Fort Osage along the Missouri River on May 11th, 1811 (Goins and Gable 2006: 46). Sibley explored along the upper Chikaskia and followed the Salt Fork until he reached the Great Salt Plains. Sibley knew that the Salt Plains were utilized by the Osage but the Kickapoo, Cherokee, Shawnee, and the Comanche might have had access to the

area as well (Ferring et al. 1976: 37). Sibley explored the Great Salt Plains and the Gypsum Hills for two months until his return to Fort Osage.

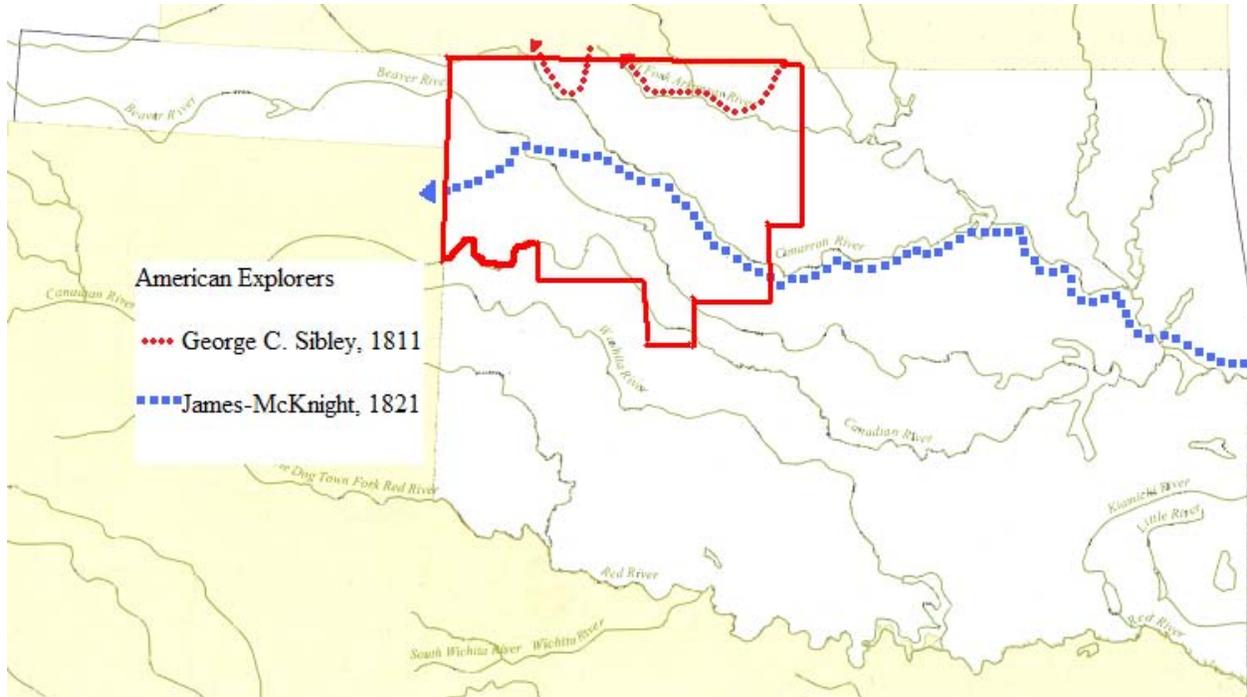


Figure 19. American explorers through northwest Oklahoma

A second American expedition through northwest Oklahoma traveled along the Arkansas and Cimarron Rivers. Two men, Thomas James and John McKnight, lead a civilian trading expedition to Santa Fe (Ferring et al. 1976: 38). The journey began in May 1821 and returned in July 1822. The James-McKnight party encountered two tribes along the trade route. The trading party was stopped by the Comanche on the way to Santa Fe and had horses and mules stolen on the return trip by the Osage (Goins and Gable 2006: 46).

A third American explorer, Nathan Boone, was sent to explore the Great Salt Plains. He left Fort Gibson on March 14th, 1843 on the orders of General Zachary Taylor to produce a show of force to the native populations (Ferring et al. 1976: 38, Goins and Gable 2006: 76). Boone

reached the salt plains and visited the Grand Saline and Salt Rock in Woodward and Harper Counties.

Summary

The Protohistoric time period in northwestern Oklahoma represents an era in which cultural changes rapidly took place. Many of the archaeological cultures are the developed from indigenous populations present during the Late Prehistoric time period. The Protohistoric is defined by the presence of Euro-American trade goods in the archaeological record. No evidence for identified cultural groups exists within any of the counties in the project area. Some sites have been identified with known historical tribes in Oklahoma.

European contact with native populations in Oklahoma was moderate at best. The Spanish made excursions through Oklahoma but did not have a significant impact on peoples living in northwestern Oklahoma. The French had a slightly greater impact on the peoples of Oklahoma with their desire for trade goods. Interest in northwestern Oklahoma increased after its purchase by the United States. Euro-American immigration west of the Mississippi increased the interactions between native populations and European Americans.

CHAPTER NINE

CONCLUSIONS

The knowledge about the archaeological record in northwestern and north-central Oklahoma has expanded rapidly in recent years. Many newly discovered sites provide new information about peoples occupying the region through time. Some of the greatest leaps in information about the archaeological record occurred for the Paleoindian, Archaic, Woodland, the Late Prehistoric, and Protohistoric time periods.

The Burnham site, a Pre-Clovis site, has had significant archaeological work conducted at the site. It provides the best evidence for the earliest human occupation of northwestern Oklahoma. Studies into the lithic, faunal, and floral assemblages at the Burnham site have produced evidence for the occupation of the site from between 40,000 to 10,000 years ago (Wyckoff et al., eds. 2003). No radiocarbon dates were able to narrow the time frame for the creation of the site. The other Pre-Clovis site from northwestern Oklahoma, the Bartow mammoth site, does not indicate a man-made site but could have been produced naturally. The Burnham site appears to represent the best evidence for a Pre-Clovis occupation in northern Oklahoma.

The Paleoindian time period has had the most drastic changes in our understanding of its archaeological record. The early regional summaries list no Paleoindian sites in any of the counties of this thesis study. Now three Paleoindian sites have been excavated with isolated finds and highly disturbed sites have been identified by archaeologists. A Clovis site in Dewey County has been located but was so highly disturbed that little information could be learned from

the site. The Jake Bluff site provides the best evidence of how the Clovis peoples adapted to the decline and extinction of the mammoth populations. The archaeological finds at the Cooper kill site in Harper County have provided insights into prehistoric hunting practices by Folsom groups on the Southern Plains. Evidence of hunt magic can be seen with the lightning bolt painted onto the skull of the bison. Lithic usage and movement patterns can also be inferred from the lithic assemblage at the Cooper site. Little information about the Late Paleoindian sites exist for this region except for the projectile points discovered at Payne Canyon. More archaeological work may provide more information about this period in northwestern Oklahoma.

The Archaic period represents the longest archaeological time period in the state of Oklahoma, but very little is known about the peoples occupying the northwestern and north-central portions of Oklahoma. The earliest attempt to identify and classify archaeological material of the Archaic period resulted in the creation of the Lawton Aspect. This designation is no longer used as the material basis for its creation, the use of quartzite, is common throughout all time periods and is not indicative of the Archaic period. Middle Archaic sites are represented by Calf Creek sites. Calf Creek sites have been discovered in Dewey, Ellis, Grant, and Woods counties. Late Archaic sites are difficult to identify. Many of the cultural materials found at Late Archaic sites are also found at Woodland sites. The Archaic period is one of the least understood time periods in the state, but recent archaeological work has provided new insights into the Middle Archaic occupations in northern Oklahoma.

The Woodland period in northwestern and north-central Oklahoma remains mostly a mystery. Woodland period sites have been identified in Blaine, Ellis, Garfield, and Harper counties. No known archaeological cultures are known for the region, but this is mainly due to the scarcity of discovered sites. Many of the Woodland period sites may be buried under deep

deposits which could hinder their discovery. The recent sites discovered may help provide clues to the development of the Woodland period in this region of Oklahoma. The Patsy's Island site in Harper County provides some of the best evidence for Woodland occupations. Corn was documented at the site which remains rare for Woodland sites on the Southern Plains. The corn was dated to the Woodland period, and charcoal removed from the site was also dated to the Woodland period.

Most of the archaeological work in northwestern and north-central Oklahoma has centered on the Late Prehistoric period. This may reflect the ease of identifying sites and the availability of archaeological materials. Several known archaeological cultures have been identified with the thesis area and nearby on the Southern Plains. The Zimms complex and the Odessa phase have sites within the study area. The Hedding site may represent a Zimms complex site, but some debate still exists about the validity of this claim. The Miller site in Ellis County has been included as part of the Odessa phase. The Bluff Creek phase may extend south into Grant County. Further archaeological work could help identify how the cultures on the Southern Plains interacted with each other and with peoples occupying other areas of North America. Two sites in northwestern Oklahoma, the Wilson and Shadid sites, have been the focus for Oklahoma Archaeological Survey archaeologists. These sites have provided more information about the Late Prehistoric period but cannot be placed into any known cultural complexes.

The Protohistoric period represents a time when contact with Europeans was beginning and Euro-American trade goods began appearing in the archaeological record. More archaeological work could help determine why the peoples living on the Southern Plains around Oklahoma began abandoning the region at about A.D. 1450. Not all people abandoned the

Southern Plains region during this time period. Some evidence exists that the Wheeler phase may have developed from local Washita River phase peoples. Debate exists around the validity of the Wheeler phase opposed to the separation of the phase into the Edwards and Wheeler complex. Later in the Protohistoric, the protohistoric Wichita arrived in Kay County, Oklahoma. Protohistoric Wichita sites have not been found in any county included in the thesis region. More archaeological work focusing on Protohistoric sites in the region could provide more information about the period in northwestern and north-central Oklahoma.

European explorers and traders also traversed through northwestern and north-central Oklahoma. The first European explorer to travel through the region was Coronado in 1541. The exact route of Coronado is not known and archaeological work focusing on his route through Oklahoma would be beneficial. Other explorers through the area visited the Salt Flats in northern Oklahoma along the Salt Fork of the Arkansas River. The James and McKnight expedition traveled along the Arkansas and Cimarron Rivers. They encountered both the Comanche and the Osage on their journey.

Significant advances in the knowledge about the archaeology of northwestern and north-central Oklahoma have occurred since the last publication of a regional summary of the Southern Plains. The area covered in this thesis remained a mystery until archaeologists began focusing on this region after about 1990. Significant sites throughout all time periods have been identified that provide more information about the archaeological record of this region.

Further Research

Archaeologists study the relationships between the environment and the peoples who inhabit that space to better understand the archaeological record. Many of the archaeological sites are clustered along portions of the Cimarron, North Canadian, and Salt Fork of the Arkansas River. This is partially due to the lack of potable water along portions of these rivers. Other factors may be involved in the location of archaeological sites. Hill's (1996) study provided information about how occupants utilized the Farra Canyon in Blaine County throughout time. More study into the settlement patterns of northwestern Oklahoma would help incorporate the region into the larger patterns of Great Plains settlement.

The compilation and assemblage of the archaeological resources will provide the basic data needed for further research into northwestern Oklahoma archaeology. Traditionally, much of the research in Oklahoma has focused on how peoples in Oklahoma interacted with other Southern Plains peoples but ignored interactions between peoples occupying Kansas and Oklahoma. Northwestern Oklahoma is the crossroads where cultures of the Central and Southern Plains meet. More archeological research is needed to incorporate the new information about northwestern Oklahoma into the regional summaries of the Southern and Central Plains.

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