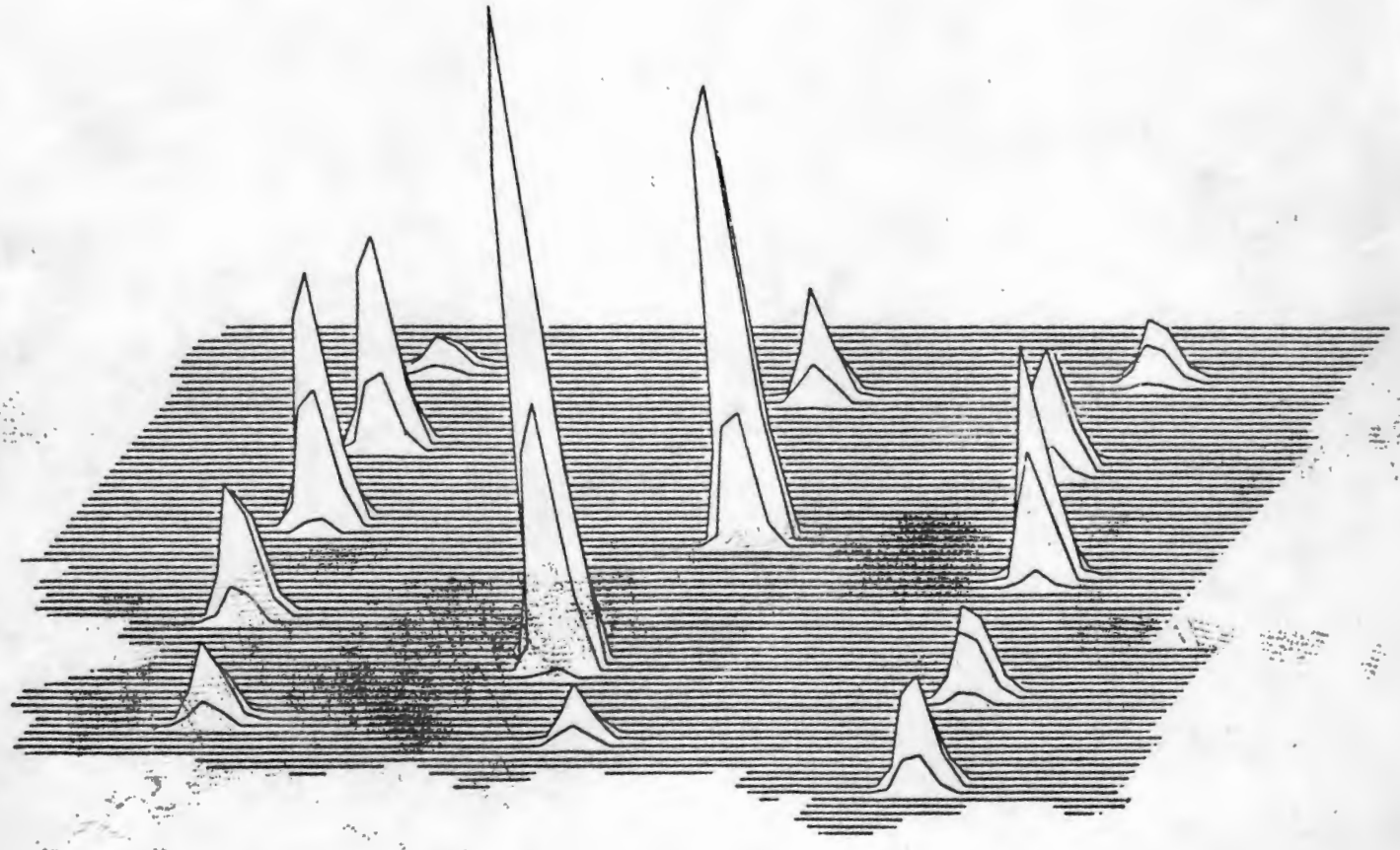
REGION 4



Relative frequency of recorded sites per county, December, 1983.

MANAGEMENT REGION 4: SOUTHERN MIXED GRASS AND TALL GRASS PRAIRIE

PHYSIOGRAPHIC SETTING

The 14 counties comprising Management Region 4 consists of some 12,250 square miles of rolling Redbed Plains and Sandstone Hills (Figure IV-1). This predominantly red landscape is derived from Permian deposits. However, in its southwestern extent, the rolling topography is broken by the east-west band of Cambrian granite Wichita Mountains. Scrub oak and cedar dot the protected moist slopes of the Wichitas, whereas oaks, cedar, and mesquite are common in the intervening valleys. In contrast, the rolling plains to the north and south support grasslands of prairie beardgrass, silver beardgrass, bluejoint, buffalo grass, and several varieties of grama grasses. These grasslands are interupted by deep canyons in areas of Caddo, Canadian, southern Blaine, and Grady counties where relic stands of sugar maple, elm, hickory, and water oak occur. Elsewhere, cottonwoods, scrub oak, elm and walnut grow along southeast trending valleys of the Washita, Canadian, and North Canadian rivers. Vegetation zones found in Management Region 4 are illustrated in Figure IV-2.

Four major river systems drain the region. The northern sector of Region 4 is drained by the Canadian and North Canadian rivers, the central section by the Washita River and the southern sector by the Red River (Figure IV-1).

A variety of animals, including white-tailed deer, squirrel, cottontail and jackrabbit, racoon, opposum, and wild turkey inhabit the mixed and tall grass prairie. Species which are no longer found in the region include black bear and bison. Numerous species of fish also existed prehistorically in the streams and rivers draining Management Region 4.

PREVIOUS ARCHEOLOGICAL RESEARCH

Region 4 first attracted the interests of archeologists between 1927 and

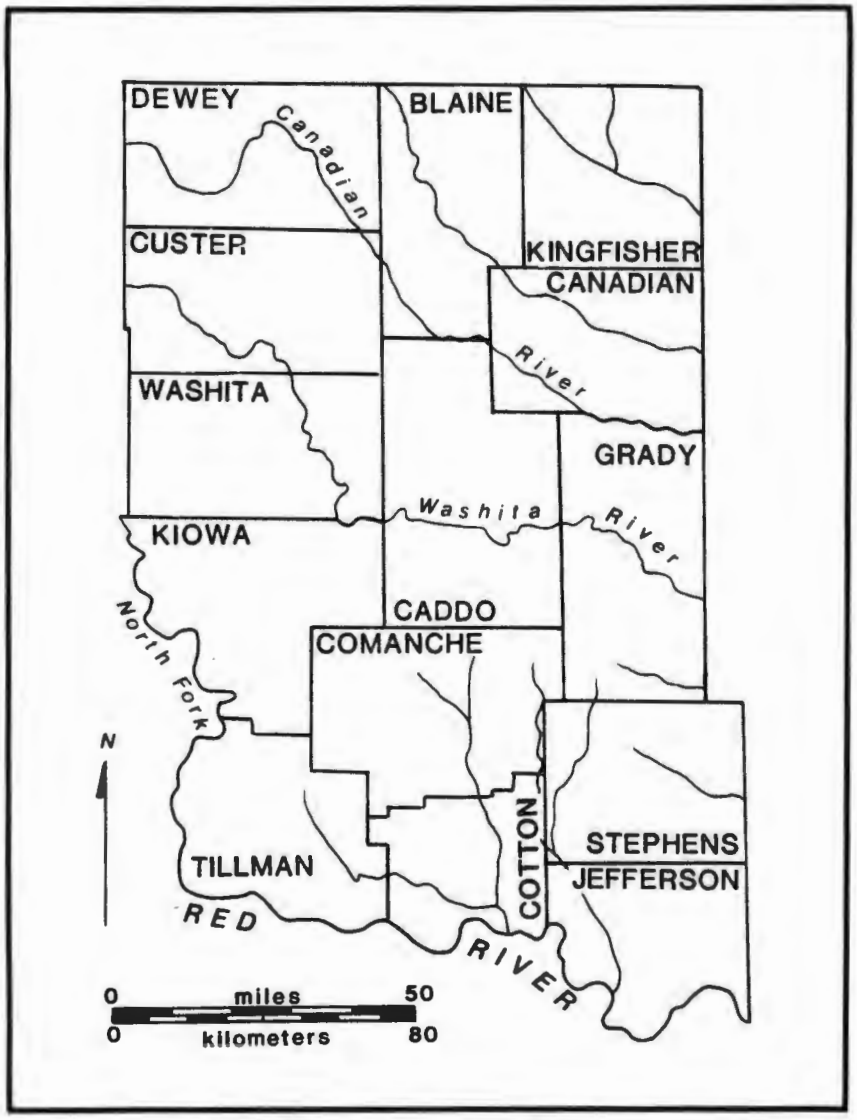


Figure IV - 1. Counties and rivers comprising Management Region 4.

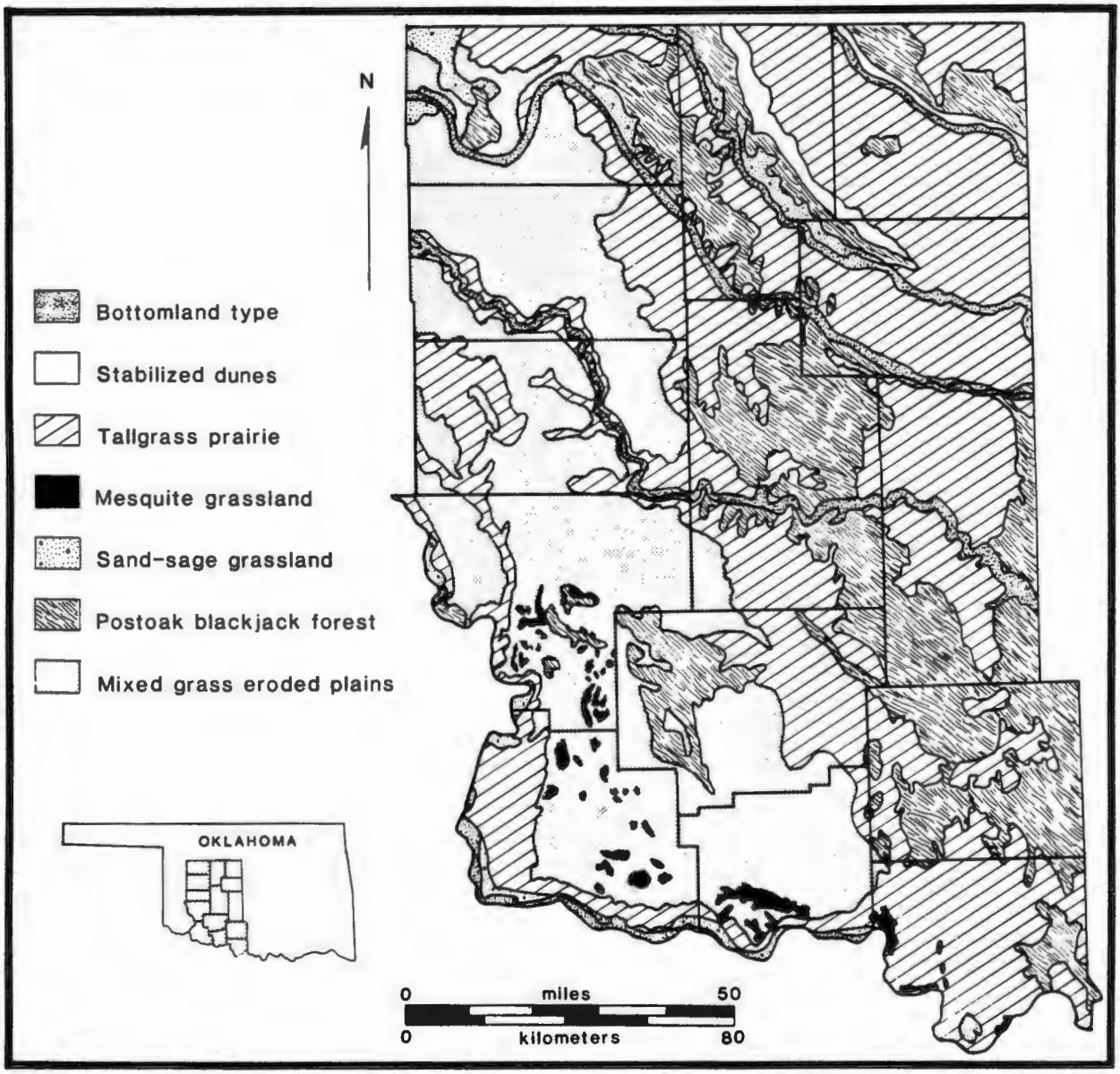


Figure IV - 2. General vegetation for Management Region 4.

1931. During these years, geologists and amateur archeologists argued heatedly over the antiquity of grinding stones and chipped stone tools found deep within a gravel pit near Frederick in Tillman County. Although these remains were eventually determined to be of relatively recent age, subsequent findings in Kiowa and Caddo counties still comprise the earliest evidence of people known for the state. The Cooperton Site in Kiowa County and the Domebo Site in Caddo County, both studied by archeologists from the Museum of the Great Plains, have yielded traces of mammoths killed by Paleo-Indian hunters between 11,200 and perhaps 20,000 years ago.

From 1936 to 1941, when WPA crews were used to dig many archeological sites elsewhere in Oklahoma, only two Custer County sites were extensively excavated in Region 4. In 1941, the Goodman I and Goodman II sites, early Plains Village settlements in the Washita River Valley, were uncovered by WPA crews led by University of Oklahoma archeologists. Although four other nearby sites were briefly tested, further research in Region 4 was delayed until after World War II. Then in 1945, University of Oklahoma student Bob Williams surveyed the proposed Foss Reservoir area in Custer County. Eighteen sites were found, and two early Plains Village hamlets, the Mouse and Phillips sites, were excavated by University of Oklahoma students in 1957 before inundation by the reservoir.

Between 1950 and 1962, archeological research in Region 4 was principally accomplished by University of Oklahoma personnel. Frequently, they were assisted by members of the Oklahoma Anthopological Society. For several years, Dr. Robert E. Bell worked with Dan Base, OAS member from Carnegie, to search for Washita County deposits that were yielding numerous Paleo-Indian spearpoints. Society members also helped with major excavations at Plain

Village sites such as Brown and Max Thomas in Grady County, McLemore in Washita County, and Heerwald in Custer County. From 1957 to 1962, Society members often helped Dr. James B. Shaeffer of the now-defunt University of of Oklahoma Archeological Salvage Project, as he surveyed numerous Region 4 highway construction projects and even portions of several watersheds in the Ft. Sill Military Reservation and Comanche County. This latter fieldwork resulted in recording 115 historic and prehistoric sites, including several Plains Village camps or settlements and numerous open camps and workshops of quartzite-knapping hunters and gatherers. The assemblages from these latter sites were studied and seriated to define three subsequent phases of the Lawton Aspect, a hunting-gathering culture that presumably inhabited central and southwest Oklahoma in Archaic times.

With the founding of the Museum and Institute of the Great Plains at Lawton in 1961, research on Region 4 archeological sites became continuous and more broadly oriented than previously. During 1961, MGP archeologists uncovered the 19,000 year-old Cooperton mammoth-kill in Kiowa County, and by the spring of 1962, they were excavating the 11,000 year-old Domebo mammoth kill in Caddo County. Subsequent MGP projects have included research at the 5000 year-old Gore Pit camp site in Comanche County; identification of over 100 archeological sites in the Wichita Mountains; discovery of 83 sites during a reconnaissance of the Ft. Sill Military Reserve; finding 2 historic and 6 prehistoric sites during a survey of the Salt Creek watershed in Blaine County; a survey and salvage of 13 sites affected by the Waurika pipeline in Jefferson, Cotton, and Comanche counties; major excavations at the mid-1700s Wichita village known as the Longest Site in Jefferson County; excavation of former Kiowa and Comanche Agency commissaries at Ft. Sill; examining 9 historic and 6 prehistoric sites in the Big Beaver watershed (Cotton, Comanche, and Stephens

counties); and studies of numerous Paleo-Indian and Archaic tools from southwest Oklahoma.

Besides the continuous research by MGP archeologists, since 1967, surveys, testing, and salvage excavation of Region 4 sites have been conducted by researchers from other institutions and agencies. The construction or shoreline erosion of major reservoirs stimulated work by archeologists from North Texas State University (Denton) and the University of Oklahoma. Along the Kiowa County section of Lake Altus, University of Oklahoma River Basin Survey personnel evaluated 7 eroding prehistoric sites. ORBS personnel also inspected the potentially threatened 1870s military Camp Radziminksi near the Mountain View Reservoir in Kiowa County. Finally, ORBS personnel evaluated and planned research of 32 prehistoric sites in the proposed Waurika Reservoir area of Jefferson, Stephens, and Cotton counties. Five open camps and/or lithic workshops near the Waurika Reservoir dams were subequently tested and salvaged by ORBS archeologists in 1973. In 1976, 26 other prehistoric camps and workshops around Waurika Reservoir were examined and tested by archeologists from North Texas State University.

Since 1975, many Region 4 archeological sites were discovered, evaluated, and/or studied due to their being endangered by Soil Conservation Service impoundments. Surveys of such projects have been especially rewarding because they generated much new information about the number and kinds of prehistoric sites in upland settings, thus greatly supplementing our knowledge which was largely based on sites along the region's major valleys. In Custer County, for example, three likely Archaic camps were found during Oklahoma Conservation Commission surveys of the Butler Lateral impoundments. In Washita County, OCC-sponsored surveys in they Gyp Creek, Elk Creek, and Cowden Laterals watersheds resulted in the discovery of Plains Village settlements and Archaic

and Paleo-Indian camps. Among the latter is the Cedar Creek locality (now a National Register District) which is a small valley containing a 10,000 year record of human habitation and past environments. In Caddo County, surveys by the Oklahoma Conservation Commission, Archeological Research Associates, and Environmental Assessments, Inc. have resulted in discovering 7 sites in the Ft. Cobb Laterals watershed, 3 sites in the Delaware Creek watershed, 7 in the Little Washita watershed, and 1 in the Saddle Mountain Creek watershed. Likewise, surveys of SCS impoundments in Tillman, Stephens, Jefferson, and Grady counties have contributed information on site distributions, functions, and settings that may provide new insight on changing environments and prehistoric people's responses. Although few SCS-impacted archeological sites are studied in detail, Archaic or Woodland burials were recovered from site Cd-244 by Archeological Research Associates. Especially intriguing are the geomorphic and archeological findings reported along Delaware Creek (Caddo County) by North Texas State University researchers and along Cow Creek (Jefferson County) and Cedar Creek (Washita County) by Oklahoma Conservation Commission and Eastern New Mexico University researchers. By combining studies of geology, soils, and buried deposits containing archeological, plant, and animal remains, such researchers are beginning to generate well dated records of changing natural settings and how they were used by prehistoric people for some 10,000 years.

Since 1968, the Oklahoma Highway Archeological Survey and the Oklahoma Archeological Survey staffs have conducted scattered surveys and a few emergency recoveries in Region 4. For example, Archaic camp remains were salvaged in Comanche County and Plains Village burials recovered in Custer, Grady, and Cotton counties. Also, numerous Archaic, Woodland, and Plains Village sites reported by Oklahoma Anthropological Society members have been

visited in Grady, Kiowa, Washita, and Caddo counties. During 1972, Archeological Survey personnel discovered 70 sites while surveying a quarter-mile corridor (for the ARKLA gasline) across Grady, Comanche, Caddo, and Custer counties. Because pipeline rerouting was able to preserve most sites, the only salvage necessary was at the Hodge Site (34Cu-40), an early Plains Village settlement. One other Region 4 site has been thoroughly studied by the Archeological Survey; the Little Deer Site (34Cu-10) yielded a large surface collection largely attributable to 16th Century people, possible the Apache, the Jumano, Wichita, or even Puebloans.

During the past four years, a variety of research and cultural resource management studies have contributed to the 28% increase in the number of recorded sites. The Oklahoma Archeological Survey has conducted intensive surveys of the Quartermaster and Hay Creek drainages in Custer County and the Washita River Valley in Grady County. Field reconnaissance along the proposed corridor of the Trans-Anadarko gas pipeline by New World Research Foundation also resulted in the identification of a number of prehistoric and historic sites. Another reconnaissance level project was the Museum of the Great Plains examination of standing structures and historic sites for select counties in the southern portion of the region (Comanche, Cotton, and Kiowa counties). There were also numerous projects associated with the construction of oil and gas wells and gas pipelines. More intensive site examinations included: the Oklahoma Archeological Survey's mapping and test exacavations at the Duncan (34Wa-2) and Heerwald (34Cu-5) sites, the Survey's mapping of the Carl McLemore Site (34 Wa-44) in Washita County, the Oklahoma Anthropological Society's mapping and controlled surface collection at the Franklin Site (34Wa-3), and the Oklahoma Conservation Commission's archeological and geomorphological testing in Carnegie Canyon, Caddo County, and student thesis research carried

out on geomorphological and paleoenvironmental conditions in Cedar Canyon in Canadian County.

Since 1966 and the passage of the National Historic Preservation Act, cultural resource management responsibilities have increasingly taken archeologists' time. Fortunately, individual members of the Oklahoma Anthropological Society have continued to make substantial contributions to our knowledge about particular Region 4 sites. Because of such people's endeavors, noteworthy reports are available for the Duncan-Wilson Shelter, site 34Cd-177, and the Ross Canyon Site in Caddo County and for Plains Village burials salvaged in Washita County.

RESULTS OF PREVIOUS RESEARCH

The 14 counties comprising Management Region 4 contained 1165 recorded archeological sites in 1979. Twenty-seven percent of these sites were in Comanche County where two federally funded surveys were conducted on the Ft. Sill Military Reserve. Similarily, surveys of federally built Soil Conservation Service impoundments have discovered many of the sites recorded for Caddo, Custer, Jefferson, Kiowa, Stephens, and Washita counties. A large number were also recorded as a result of reportings by amateur archeologists and concerned citizens. Since 1979, an additional 328 sites have been recorded for the 14 counties (Table IV-1 and Figure VI-3), primarily as a result of federally funded projects. This represents a 28% increase in the recorded sites over a four year period. However, like the discussions of Management Region 1, this overview deals essentially with information accumulated for the 1979 assessment.

Approximately 4% of the sites recorded in 1983 have been tested or excavated; most are locations that were studied by Museum of the Great Plains

Table IV-1. County Distributions of Archeological Sites in Region #4.

County	Known Sites	Federal #a	Tested/Excavated		Oklahoma Landmarks Inventory	National Register
Blaine	51	12	1	0	0	0
Caddo	256	90	5	5	5	3
Canadian	80	25	3	0	0	0
Comanche	358	230	12	6	03	1
Cotton	37	19	5	0	0	0
Custer	121	67	8	5	1	2
Dewey	27	6	0	0	0	0
Grady	143	68	7	1	2	1
Jefferson	65	36	13	1	1	1
Kingfisher	23	8	0	0	0	0
Kiowa	83	40	1	1	0	1
Stephens	53	35	0	0	0	0
Tillman	55	28	1	1	0	0
Washita	141	65	6	1	0	1
Total	1493	729	62	21	12	10

NOTE: Compiled from Oklahoma Archeological Site File (as of December 15, 1983) maintained by the Oklahoma Archeological Survey, University of Oklahoma, Norman, Oklahoma.

[a]Sites found during federally funded surveys.

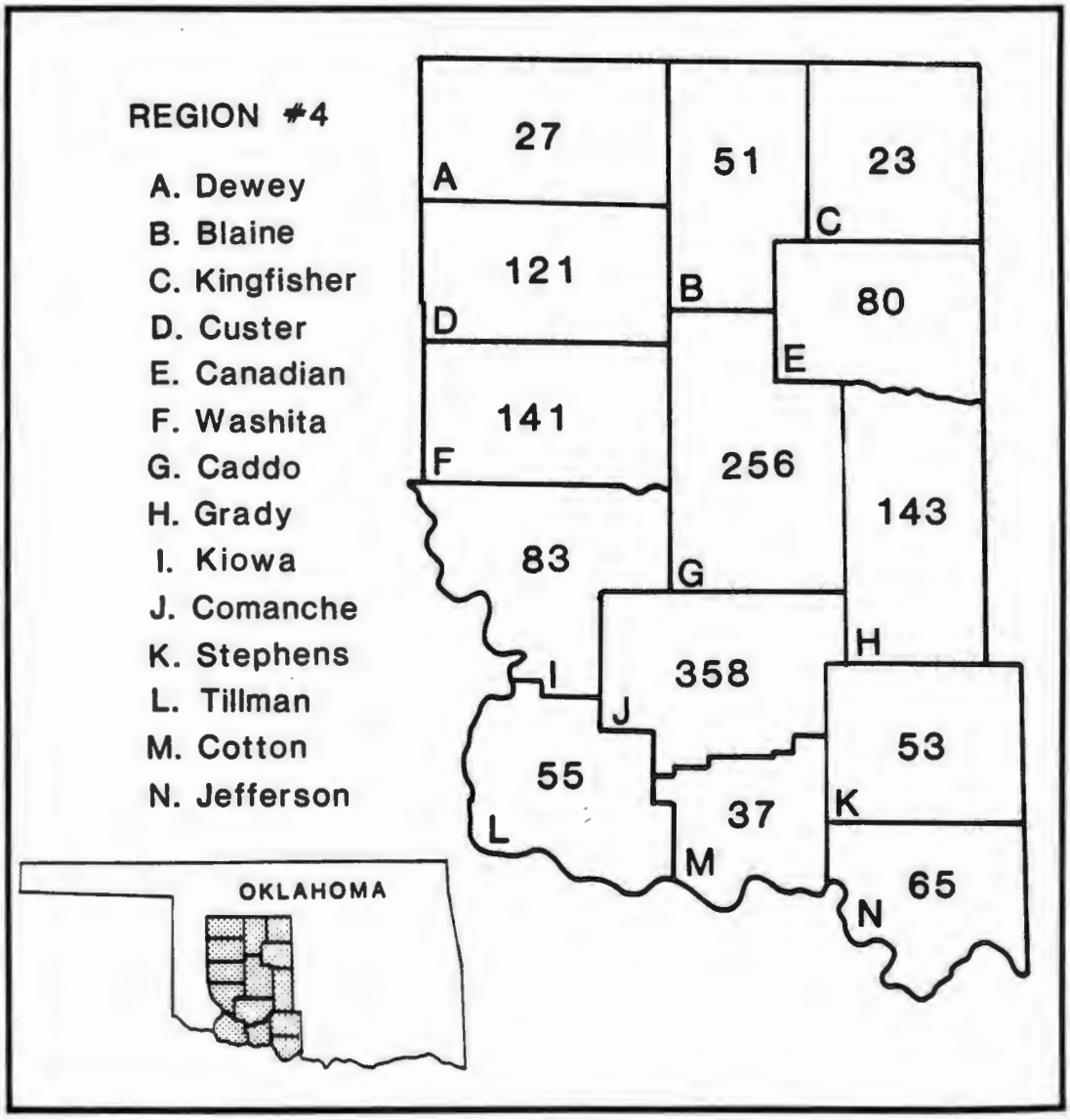


Figure IV – 3. Number of known archeological sites in Region 4 counties.

archeologists. The bulk of the reports resulting from such excavations and surveys principally provides information on Plains Village and Protohistoric or historic Indian habitations and cultural change. Although less researched than Plains Villager and historic sites, Archaic and Paleo-Indian sites in Management Region 4 have been more thoroughly studied than elsewhere in central or western Oklahoma. In general, most surveys and excavations have focused on flood plain settings or on remains preserved in the canyons of Caddo county. Despite the number of site recordings for Management Region 4, the only large systematic surveys have been on the Ft. Sill Military reserve, around Lake Altus and Foss Reservoir, within the Quartermaster Creek Drainage, and along portions of the Washita River Valley in Grady County.

REGIONALLY IMPORTANT ARCHEOLOGICAL SITES

The 1493 archeological sites recorded for Management Region 4 in 1983 comprise our principle sources of information on at least 12,000 years of people living in south-central Oklahoma. In order to ascertain how representative these sites might be and which ones might yield substantial new information on the region's past people, the records and notes on these 1493 sites were studied and evaluated. As a result, it is clear that our information is uneven and clearly biased toward large prehistoric farming settlements. For example, because of many or large surveys for the U.S. army, Soil Conservation Service, and the National Park Service, Comanche, Caddo, Custer, Grady and Washita counties have received more attention than the other 11 counties, resulting in 68% of the recorded sites being in about half of the region. Moreover, because most surveys were conducted to identify sites that might be damaged or destroyed by reservoirs or SCS impoundments, many A.D. 800-1600 hamlets, villages, and camps were discovered along the cultived,

fertile terraces bordering Region 4 streams. At least 50% of the known sites have assemblages attributable to this late prehistoric-early historic period. Despite the above limitations, recent surveys of pipelines, highways, and oil-well pads are adding to our understanding of the kinds and numbers of sites in upland settings. Thus, a more sound evaluation of Management Region 4 archeological resources is possible than five years ago.

The numerous surveys of proposed SCS impoundments, oil and gas pipelines, rural water systems, and highway projects have afforded opportunities to revisit a number of previously recorded sites during the past five years. The resulting notes on site contents and conditions have been most helpful in evaluating sites and determining which ones have preserved contexts that should yield substantial new information about the region's past inhabitants. Two hundred and thirty-two sites are judged important for the region. These sites will be enumerated in discussions of the various cultural periods to which they belong. Many more recorded sites are undoubtedly significant, but they were not listed because little is known concerning their contents, size, location, or state of preservation.

Of the 232 listed sites, 10 are on the Oklahoma Landmarks Inventory and 12 are on or eligible for inclusion on the National Register of Historic Places. These include such noteworthy historic sites as the Fort Sill Indian Agency, its associated pre-statehood settlement, the Cheyenne-Arapho ranch headquarters, and the former trading post and nearby home of frontiersman William Mathewson. Two historically documented Native American settlements are also recognized as regionally important National Register properties: the late 1700s Wichita village (Jf-1) on the Red River and the 1830s Wichita village (Ki-1) visited by George Catlin and the U.S. Dragoons. Already recognized important prehistoric sites include 10 Plains Village and/or Woodland

settlements, 7 Plains Village and/or Woodland camps, 1 Archaic camp, 1 Paleo-Indian, Archaic, and Plains Village camps, kill sites and workshops along Cedar Creek in Washita and Caddo counties. Of the 22 already designated important sites, the prehistoric village known as the McLemore Site (Wa-5) is the only Region 4 site currently listed in the prestigious National Historic Landmarks. The 232 archeological sites considered as worthy of further study and/or preservation and their values are listed for each study unit. These site listings also contain some coded information. The key to these codes is presented in Table IV-2.

STUDY UNITS

Paleo-Indian (18,000 to 6000 B.C)

Characteristics

During the final episodes of the last (Wisconsin) ice age, or from roughly 30,000 to 10,000 years ago, people began migrating into North America. These people have been called Paleo-Indians and the remains they left behind represent the earliest documented evidence for habitation of the New World. The groups living during this period were apparently organized into nomadic or semi-nomadic "bands" of some 30 to 100 people who hunted large and small game and gathered edible wild plants. Some of the large game they hunted included now extinct species such as the Imperial mammoth and Bison antiqus (a larger version of modern buffalo). Paleo-Indian groups were also faced with the challenge of living in an ice-age climate under severe ecological conditions. Lanceolate, fluted spearpoints were the primary hunting tools of these people. Two of the styles most commonly found are called Folsom and Clovis points. In addition, scrapers, choppers and knives chipped from stone are common implements left by the group members. Based on the remains left behind

Table IV-2. Key to Recommendations for Managing Important Archeological Sites in Oklahoma.

Major Action	Alternatives
I. Archeological Investigation	
	A. Record visible remains 1. Photograph, map, and/or recover surface evidence. 2. Special recording (e.g., latex molds of petroglyphs) of surface evidence.
	B. Plan and undertake testing to: 1. Sample contexts and analyze recovered remains in order to substantiate significance for National Register or Oklahoma 2. Establish depth and extent of deposits to plan salvage excavations. 3. Plan suitable stabilization program for a threatened site of National Register or Oklahoma Landmarks Inventory status.
	C. Plan and undertake major excavations in order to: 1. Salvage information threatened by natural or human actions. 2. Develop site as one unit in a regional system of state-managed interpretive parks. 3. Supplement existing information on site function, age, community structure, cultural ties, and/or cultural change. 4. Acquire previously unavailable information about site function, age, cultural ties, community structure, and/or cultural change.
II. Preservation	
	A. Nominate to: 1. Oklahoma Landmarks Inventory 2. National Register
	B. Secure long-term preservation easement.
	C. Stabilize: 1. As is. 2. With suitable sodding and vegetation. 3. With special techniques (rip-rap, gunnite, etc.), as needed.
	D. Incorporate into regional system of interpretive parks by: 1. Noting presence with a roadside marker. 2. Minimum site restoration (parking area, trail, interpretive markers, etc.) 3. Maximum site restoration (including stabilization or reconstruction of habitation features, interpretive center, interpretive walkway, etc.)
	E. Set aside for future archeological studies of: 1. Site function. 2. Community structure. 3. Regional variation in settlement practices. 4. Adaptive change and/or cultural evolution. 5. Culture history. 6. Other research questions.

by these groups, a number of different site types have been identified. These include: bison jumps, mammoth kills, butchering locations, temporary hunting camps, and more intensively occupied based camps.

Existing Data

Management Region 4 contains more sites with Paleo-Indian remains than any other portion of the state. Almost every county has recorded sites with fluted-points present. This region also has the only documented evidence in Oklahoma for association of Paleo-Indians remains with the Imperial mammoth.

The Cooperton Site in Kiowa County and the Domebo Site in Caddo County are mammoth-kills that attest to the earliest human activities known for the Southern Plains. Both sites yielded wooly mammoth remains, a few chipped-stone tools, and radiocarbon dates exceeding 11,000 years ago. The three dates exceeding 17,000 years ago and lack of obviously man-made tools causes the Cooperton finds to be contoversial, but the stacked appearance of the bones, their distinctive green-fracture breaks, and the associated hammerstones and anvil are good clues that people were responsible for the site. Likewise, the Clovis-like spearpoints and flakescrapers or knives found among the Domebo mammoth remains are incontrovertible evidence that people killed the animal. Radiocarbon dates from the Domebo deposit support the conclusion that the event occurred some 11,200 years ago. Surface finds of Clovis points in Custer, Washita, Caddo, and Blaine counties attest to wide-ranging movements of these early hunting-gathering groups, but to date no Clovis base camp sites have been identified.

Artifact collections from Grady, Caddo, Dewey, Kiowa, Washita, and Comanche counties occasionally contain Hell Gap, Agate Basin, Folsom, and Plainview spearpoints. The recovered points are typically found in the beds of

deeply incised streams, commonly those draining directly into the Washita or Canadian rivers. The best known and best studied such stream is Cedar Creek in Washita and Caddo counties. Here, some Folsom sites have been found near eroding bison remains. Although specific Folsom sites have yet to be identified, the exposed soils and alluvial and marsh deposits have yielded an important 9500-year record of aggrading and erosion.

Evidence to date documents a pattern of Paleo-Indian remains being found in deeply entrenched streams or occuring as isolated spearpoints in later sites. The only well documented site type is the mammoth kills. Sites with Paleo-Indian remains thought to merit further study and preservation are presented in Table IV-3.

Gaps in our Knowledge

As noted earlier, Management Region 4 contains more Paleo-Indian camps and kill sites that are known elsewhere in the state. However, there remain notable gaps in our understanding of this region. There have been only limited efforts to systematically examine areas for the presence of Paleo-Indian sites or camps and little comprehensive data exists on the numerous sites recorded. For example, although distinctive spearpoints are good clues to Paleo-Indian occupations between 11,000 and 9000 years ago, little is known about these people's tool kits, activities, camps, kill sites, or social ties. The sites recorded to date portray a pattern of highly mobile groups who ranged over a variety of physiographic settings. Much more work needs to be completed before we can ascertain the various types of camps occupied by these early peoples and the distribution of these sites across the landscape.

An obvious constraint on our study of Paleo-Indian sites has been the degree of geological activity that has occurred during the past 10,000 to 15,000 years. Alternating periods of erosion and aggrading of the land surface

Table IV-3. Paleo-Indian Sites Meriting Research and Preservation in Management Region 4.

	Site Number	Cultural affiliation	Significance	Recommendations
Blaine County				
Payne	B1-4	Paleo-Indian and Plains Village	Potentially stratified camps in eroding canyon; may still have preserved deposits relevant for studying past people and environments.	IA1, IB2; IIA1-2?, IIB?. IIC?, IIE?
Caddo County				
Domebo Canyon	Cd-50	Paleo-Indian, Archaic, and Plains Village	Previously studied mammoth kill; other sites are nearby.	IB1, IC3; IIAA2?, IIB?, IIC?, IIE
Caldwell	Cd-86	Paleo-Indian?	Deeply buried paludal deposits sit with mammoth and other Pleistocene animal remains.	IC1&4; IIA1-2?
Inlow	Cd-187	Paleo-Indian and/or Plains Village	Open camp with potentially preserved deposits from different habitations.	IA1, IB1, IC4; IIA1-2?
Mason Creek "F"	Cd-196	Paleo-Indian or Archaic	Open camp with some preserved deposits.	IA1, IB2, IC1&4; IIA1-2?

Table IV-3. - (Continued)

	Site Number	Cultural affiliation	Significance	Recommendations
Caddo County				
White Canyon "O"	Cd-203	Paleo-Indian and Archaic	Parially preserved open camp that covers many acres.	IB2, IC1&4; IIA1-2?
White Canyon "R"	Cd-206	Paleo-Indian and Archaic	Partially preserved camp.	IB2, IC1&4; IIA1-2?
White Canyon "T"	Cd-208	Paleo-Indian and Plains Village	Preserved open site with horizontally different habitation deposits.	IB2, IC1&4; IIA1-2?
White Canyon "W"	Cd-212	Paleo-Indian	Partially preserved open camp.	IA1, IB1-2, IC1&4?; IIA1-2?
	Cd-274[b]	Paleo-Indian? and Plains Village?	Elephant remains and nearby camp debris; one of several sites in Cedar Creek watershed.	IA1, IB1, IC4?
Canadian County				
Barrett	Cn-16	Paleo-Indian	Potential camp or kill-site recently exposed by canyon erosion.	IA1, IB2, IC1&4; IIA1-2?
Kingfisher County				
Stegleman	Kg-2	Paleo-Indian and Archaic	Buried camp deposits being exposed by creek; locality offers chance study alluvial geology for clues of past environments.	IA1, IB2, IC1&4; IIA1-2?

Table IV-3. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Kiowa County				
Cooperton	Ki-26	Paleo-Indian	Excavated mammoth-kill that is dated at around 18,000 years ago.	IIA1-2, IID1.
Smith Mammoth	Ki-54	Paleo-Indian?	Potential mammoth-kill with good context for evidence of past environments.	IA1, IB2, IC4;
Washita County				
Cedar Creek	Wa-6[b]	Paleo-Indian, Archaic, and Plains Village	Short watershed with geological deposits containing 10,000 years record of environment and human use.	IIB,IIC1&2, IIE.
Shinn	Wa-85	Paleo-Indian?	Buried mammoth on ridge next to Cedar Creek District; this could be a kill.	IIA1, IIE1&6.
	Wa-88	Paleo-Indian and Archaic	Open camp that may have stratified habitations.	IA1, IB1; IIA1-2?, IIB?, IIC? IIE?

[a] Listed on or eligible for the National Register.

[b] Listed on the Oklahoma Landmarks Inventory.

has washed away some early sites while deeply burying others. Consequently, it has only been in the deeply incised streams where stratigraphic columns are exposed that archeologists have had reasonable success in identifying Paleo-Indian occupations. Upland sites generally are deflated and mixed with later cultural remains, making it difficult to match up Paleo-Indian spearpoints with other components of the tool kit.

Future Research

Despite the problems in identifying and examining Paleo-Indian sites, the large numbers of such occupations in Management Region 4 make it extremely valuable for future research. Few details are known for the Paleo-Indian study unit and virutally any of the sites viewed as having potentially significant deposits are worthy of future study and/or preservation. This is also true of sites which currently exist in the region but have yet to be recorded in the Survey's files. Future research question regarding Paleo-Indian occupations of Management Region are listed in Table IV-4.

Factors Affecting Paleo-Indian Sites

Various activities have led to disturbance and destruction of Paleo-Indian sites in Management Region 4. Prior to 1978, the most significant factors affecting the region's archeological sites were vandalism and farming practices. However, dramatic increases in oil and gas production and continuing urban expansion in the past five years added to the adverse effects archeological resources were experiencing.

In general, vandalism has not affected Paleo-Indian sites as extensively as it has those of the later periods. Many of these early occupations are deeply buried by alluvial or eolian deposits and are thus protected from

Table IV-4 Research Questions About The Paleo-Indian Feriod In Management Region 4.

MORPHOLOGICAL RESEARCH	CULTURE HISTORY RESEARCH	BEHAVIORAL RESEARCH	ECOLOGICAL RESEARCH
Numerous Clovis and some Folsom Hell Gap, and Agate Basin points come from various sites and settings; Do the range of materials, styles, and technology comprise preliminary clues to significance and function of stylistic variation?	Is the Cooperton mammoth representative of a pre-Clovis society? If so, where might other pre-12,000 year old occupations be found in this region. What characterizes their remains?	Although known mainly from mammoth kills, are other kinds of sites present? Do sites, their contents, and their layouts (structure) yield clues to number and composition of site's inhabitants? (How does site structure relate to social structure?) Did different economic, social, ritual, or seasonal situations result in different organizations of Paleo-Indian societies? (Can different "structural poses" be identified and explained?)	What natural settings and resources existed during this period? What was the character of Paleo-Indian settlement and resource use? As they become familiar with a region, did they adapt or adopt new strategies for using resources? Elsewhere in the Plains, Paleo-Indians became specialized hunters of bison; is there similar evidence here.

illicit digging. Others are present in upland setting where they are found in mixed cultural deposits with more recent remains, thus reducing their distinctiveness and incentives for looting. Some vandalism has taken place where stream action has created deep stratigraphic cuts in canyons and similar settings in Canadian and Caddo counties. Here, exposed Paleo-Indian remains are vulnerable to pothunters, inquisitive recreationalists, and careless oil and gas field workers.

Current agricultural practices are believed to have considerable impact on Paleo-Indian sites. Although deeply buried sites of this period are unlikely to be disturbed by plowing, upland hunting camps which are closer to the surface have been irreparably damaged by plowing. Because of their antiquity and the shallow nature of the deposits, these sites are extremely fragile. Plowing usually results in Paleo-Indian materials being mixed with more recent cultural remains. Deflation of upland soil surface also resulted in the mixing of Paleo-Indian assemblages with later cultural deposits. These activities have diminished the archeologist's ability to identify the Paleo-Indian tool kit and cultural activities that were taking place in these settings. Although we can establish that Paleo-Indian sites are unquestionably disturbed by activities such as deep plowing, agricultural terracing, etc., the degree of disturbance has not been studied or documented.

Recent developments in the oil and gas industry probably comprise the greatest threat to Paleo-Indian occupations. Oil pad construction and the creation of sludge pits often take place in upland settings where Paleo-Indian camps are likely to occur. There have been cases of mammoth remains being exposed in the excavation of sludge pits in Custer, Caddo, and Washita counties, although none have contained associated cultural remains. Construction activities related to drilling operations has also accelerated

erosion in the canyons of Caddo and Canadian counties where Paleo-Indian sites are known to occur.

Rapid urban expansion associated with cities and towns such as Lawton, Anadarko, Chickasha, Clinton, and Weatherford hold potential for destroying or damaging Paleo-Indian sites. The greatest threats are from construction for water and sewer systems and housing subdivisions; activities that cover relatively expansive areas of land and involve excavation into soil deposits.

Treatment of Region 4's Paleo-Indian Sites

Because Management Region 4 contains more Paleo-Indian sites than other areas of Oklahoma, there are no portions of the region where such remains might not be found. The variety in physiographic settings for recorded Paleo-Indian site types also suggests that any site type may be encountered in almost any setting, although canyons are particularly sensitive. As noted earlier, our comprehension of Paleo-Indian lifeways is limited and virtually any Paleo-Indian site with some degree of integrity is worthy of further study and/or preservation.

Major problems exist in procedures utilized in the discovery of Paleo-Indian occupations. Because sites such as the Domebo and Cooperton mammoth kills attest to the deeply buried nature of these sites, specialized deep testing procedures must be emphasized to search for these remains. While some areas are more likely to hold potential for buried Paleo-Indian sites, we currently lack the geomorhological data to firmly establish the parameters. Clearly, it is inadequate to examine soil surfaces for sites that may exist 50 feet below the current ground surface.

Archaic Period (6000 B.C. to A.D.1)

Characteristics

As the ice age waned and some animals became extinct (e.g., mammoths),

there gradually developed climates and plant and animal communities like those known today. As these became established, prehistoric people slowly adjusted their lifestyles to the new conditions. In particular, they increasingly maintained a seasonal round of camps from which they exploited a wide variety of plants and animals. Also their movements became closely linked to the seasonal and local availability of plants and animals. This "settling in" effect probably led to Archaic groups becoming less and less nomadic through time. It undoubtedly contributed to the increases in population and group size documented for this study unit.

Our information on Archaic people and lifestyles comes largely from sites excavated in the eastern part of the state. These eastern sites have yielded many styles of spearpoints as well as numerous chipped stone knives, scrapers, drills, and choppers. Spear-thrower weights, polished stone gorgets, cupstones ("nutting stones"), manos, and grinding basins also occur. These items, primarily used in hunting game and gathering and processing edible wild plants also comprise the inventory for sites in the western region of Oklahoma. Archaic groups apparently continued to exist in band-sized nomadic to semi-nomadic groups although the size of the group was probably larger than in Paleo-Indian times. Toward the end of the Archaic periods, some groups may have been living in larger social units in more or less sedentary communities. Trade and exchange were important during this period with extensive trading networks present in the eastern United States. Probably as a consequence of larger group size, social complexity and ritual become increasingly important, particularly in regard to treatment of the dead.

The seasonal round of subsistence and settlement practices has led to a variety of settlement types being defined for Archaic people. These include base camps, temporary hunting camps, bison kill sites, workshops and less

well-defined specialized activity sites. In some instances, these camps have midden deposits where organic tools and refuse are well preserved. For example, arid conditions present in rockshelters of Canadian County has led to the potential for perishables such as cordage, bone tools, and seeds being preserved in midden deposits.

Existing Data

Archeologist's perceptions of Region 4 Archaic assemblages and activities have changed markedly since 1960. At that time, the only known sites were open camps and knapping stations that were surface collected during surveys of Ft. Sill and Lake Altus. Because these sites yielded no pottery, similar hunting-gathering tools, and chipped stone tools usually made from Ogallala quartzite, they were interpreted to be locations inhabited by bands of nomadic Archaic people. Because of their overall similarity, these assemblages were attributed to bearers of one culture, but some local differences in content were thought to be clues to different bands. Also, observed increases of chert tools (verus quartzite tools) and of arrowpoints (versus spearpoints) were considered clues to later assemblages of this Archaic culture. However, further studies of sites thought representative of this culture have determined that these site locations were typically cobble deposits frequented by different people for thousands of years. Thus, the notion of one Archaic culture persisting for thousand of years in southwest Oklahoma is being replaced with the idea that hunter-gatherer prehistory probably entailed several different societies who employed diverse technologies as they coped with substantial fluctuations in Holocene climatic conditions.

As a consequence of the continuing research and reinterpretation of remains since the 1960s, Region 4 has one of the better documented records of

Archaic occupation in Oklahoma. More Archaic sites have been recorded in the 14 counties of this region than for any other area, with the exception of the eastern portion of the state. Archaic assemblages found in Region 4 attest to a variety of occupations including base camps, temporary hunting camps, specialized activity areas, and the previously discussed workshops. Although few of these sites have been thoroughly studied, findings from the Gore Pit, Coon Creek, Lark's Nest and 34Cd-177 sites are helping define tool kits, stone working technologies, and subsistence activities used at different times between 7000 and 2000 years ago. Those Archaic sites in Region 4 which are thought to be worthy of further study or preservation are presented in Table IV-5.

Gaps in our Knowledge

Despite the large number of recorded Archaic sites in Management Region 4, there is not a substantial body of data on these resources. Only the Gore Pit (Comanche County) and Hemmings (Washita County) sites have been radiocarbon dated. And, as noted earlier, much of the information we have accumulated on this period is derived from surface collections conducted throughout the Mixed and Tall Grass Prairie Region. Considering the roughly 6000 years that comprise this period, a serious problem is our inability to separate and refine cultural assemblages into smaller units.

There are also large gaps in our knowledge regarding various site types that potentially exist in the region and the composition of the settlement pattern. Surprisingly, bison kills and base camps with habitation features dating to this period are still undocumented for the region. For the settlement pattern, we can only identify workshops and temporary hunting camps. Further studies of Archaic people's tools and trash also needs to be conducted to better

Table IV-5. Archaic Sites Meriting Research and Preservation in Region 4.

	Site number	Cultural affiliation	Significance	Recommendations
Blaine County Scott-Sherry	B1-1	Archaic and Plains Village	Potentially well preserved open site with debris from several different habitations.	IA1, IB2; IIA1-2?, IIB?, IIC?, IIE?
Williams	B1-7	Archaic	Open camp with possibly preserved midden and habitation features near eroding canyon.	IA1, IB2; IIA1-2, IIB?, IIC?, IIE?
Shantz #2	B1-33	Archaic?	Open camp that may still have preserved habitation features.	IA1, IB1, IC4; IIA1-2?
Carman	B1-46	Archaic ? and Plains Village	Large eroded camp with some preserved deposits.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Caddo County Domebo Canyon	Cd-50	Paleo-Indian, Archaic, and Plains Village	Previously studied mammoth kill; other sites are nearby.	IB1, IC3; IIA2?, IIB?, IIC?, IIE?
Mandrell	Cd-54	Archaic?	Deeply buried midden with well preserved contents.	IA1, IB2, IC1; IIA1-2.
Chalepah	Cd-68	Archaic and/or Woodland, and Historic	Open camp with potentially different habitation deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Carnegie Canyon	Cd-76	Archaic, Woodland, and Plains Village	Paleosols and middens in 40 feet of sediments exposed by eroding canyon.	IA1, IB1, IC4; IIA1-2?, IIC1-2, IIE1-5.

Table IV-5. - (Continued)

	Site Number	Cultural affiliation	Significance	Recommendations
Caddo County				
	Cd-114	Archaic or Woodland	Well preserved midden with sterile overburden.	IA1, IB2, IC1; IIA1-2?
Mack	Cd-116	Archaic or Woodland	Buried habitation zone on a low knoll; partially exposed during house construction.	IB1; IIA1-2? IIB, IIC, IIE.
White Canyon "F"	Cd-188	Archaic and/or Woodland ?	Large open camp that seems to have preserved habitation deposits.	IA1, IB1, IC4; IIA1-2?
Dead Woman Creek "E"	Cd-190	Archaic and/or Woodland ?	Sizeable open site that may have preserved habitation deposits.	IA1, IB1; IIA1-2? IIB?, IIC?, IIe?
Mason Creek "F"	Cd-196	Paleo-Indian or Archaic ?	Open camp with some preserved deposits.	IA1, IB2, IC1&4; IIA1-2?
White Canyon "K"	Cd-199	Archaic	Large open camp that may have some preserved habitation deposits.	IA1, IB2, IC1&4?; IIA1-2?

Table IV-5 - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Caddo County				
White Canyon "O"	Cd-203	Paleo-Indian and Archaic	Partially preserved open camp that covers many acres.	IB2, IC1&4; IIA1-2?
White Canyon "R"	Cd-206	Paleo-Indian and Archaic	Partially preserved open camp.	IB2, IC1&4; IIA1-2?
White Canyon "U"	Cd-210	Archaic ?	Potentially preserved camp	IA1, IB1-2, IC1&4; IIA1-2?
White Canyon "X"	Cd-216	Archaic ?	Large open camp with some potentially preserved habitation deposits.	IA1, IB1-2, IC1&4?; IIA1-2?
Tokoah	Cd-244	Archaic ?	Partially preserved open camp covered by overburden.	IA1, IB2?, IC1&4; IIA1-2?
Cat Springs	Cd-247	Archaic ?	Potentially preserved camp that has little erosion or farmed ground.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
West Bills Creek	Cd-256	Archaic ?	Potentially preserved, deeply buried camp.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
	Cd-266	Archaic or Woodland	Small but well preserved camp.	IB2, IC4; IIA1-2?
Theissen	Cd-278	Archaic	Potentially well preserved camp; buried by slope wash.	IA1, IB1, IC1&4; IIA1-2?

Table IV-5. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Canadian County				
Barrett #2	Cn-44	Archaic	Seemingly preserved camp that may date from 5000 to 7500 years ago.	IA1, IB1, IC4; IIA1-2?
Comanche County				
Jones Ridge	Cm-3	Archaic and Plains Village	Quartz knapping station with some possibly preserved deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE.
	Cm-20	Archaic and Historic	Discrete habitation areas with seemingly preserved middens.	IB1; IIA1-2?, IIB?, IIC?, IIE?
	Cm-67	Archaic or Woodland	Open camp with some preserved deposits.	IB2, IC1&4; IIA1-2?
	Cm-69	Archaic ? and Plains Village	Large open site with some potential for preserved deposits and features.	IB2, IC1&4; IIA1-2?
Gore Pit	Cm-131[a]	Archaic	Buried camp with diverse habitation features; C-14 dates are around 6000 B.P.	IIC1, IIE1-6
Wolf Creek	Cm-209	Archaic ?	Shallow, but possibly well well preserved, camp with habitation features.	IA1, IB1, IC4?; IIA1-2?
Allison #2	Cm-212	Archaic?	Potentially preserved lithic workshop and/or camp.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE1, 3, 6?
Jenkin's Pit	Cm-324	Archaic	Deeply buried habitation features; site offers good opportunity to gather paleoenvironmental data.	IB2, IC1a3; II1-2?

Table IV-5. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Cotton County				
Soldier Creek	Ct-15	Archaic ?	Probable camp area that has not been plowed; activity areas may be preserved.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Riddles	Ct-16	Archaic	Partially preserved camp that may contain habitation features.	IA1, IB1; IIA1-2?. IIB?, IIC, IIE?
Custer County				
Carley	Cu-81	Archaic ? or Woodland	Sizeable camp that has some preserved habitation deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Grady County				
Livingston	Gd-20	Archaic	Partially preserved open camp on high ridge; may have early Archaic occupation.	IA1, IB1&2, IC1&4?
Buckhorn Creek	Gd-30	Archaic ? and Plains Village	Potentially stratified camp on sandy hill; may have activity areas & features.	IB1; IIA1-2?; IIB?, IIC?, IIE?
Hutchinson	Gd-96	Archaic and Plains	Potentially stratified camp with buried intact deposits.	IB2, IC1&4; IIA1-2?

Table IV-5. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Jefferson County				
Gilcrest	Jf-20	Archaic and Plains Village	Large camp and possible village that may have preserved stratified deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Dowdy	Jf-21	Archaic	Potentially preserved camp with diverse activity areas.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Carter	Jf-48	Archaic and Plains Village	Camp and/or village with potentially different activity areas.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Lark's Nest	Jf-56	Archaic	Partially buried camp with habitation features.	IIA1, IIB, IIC, IIE1-6.
Kingfisher County				
Stegleman	Kg-2	Paleo-Indian and Archaic	Buried camp deposits being exposed by creek; locality offers chance to study alluvial geology for clues to past environments.	IA1, IB2, IC1&4; IIA1-2?
Kiowa County				
Willis #1	Ki-35	Archaic ?	Potentially preserved major camp in uplands.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Celsor	Ki-145	Archaic	Potentially preserved camp with different activity areas.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-5 - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Tillman County				
Whitworth	Ti-4	Archaic ?	Potentially preserved camp and/or workshop.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Suttle Creek	Ti-30	Archaic ? and Plains Village	Possibly buried site with stratified refuse deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Wolf	Ti-32	Archaic	Apparent midden covered by nearly 6 feet of overburden.	IA1, IB2, IC1&4; IIA1-2?
Sadler	Ti-81	Archaic	Potentially preserved camp on upland near old slough.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Washita County				
Cedar Creek	Wa-6[a]	Paleo-Indian, Archaic, and Plains Village	Short watershed with geological deposits containing 10,000 years of environment and human use.	IIB, IIC1&2, IIE.
Cook	Wa-24	Archaic	Potentially preserved camp.	IA1, IB2, IC1&4.
	Wa-88	Paleo-Indian and Archaic	Open camp that may have stratified habitations.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Fleming	Wa-89	Archaic	Possible preserved early Archaic habitation deposit.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Grossman	Wa-100	Archaic ? and Plains Village	Large site with evidence for different occupations; features may be preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-5. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Washita County				
Hemmings	Wa-124[b]	Archaic ?	Deeply buried hearth and activity area within Cedar Creek District.	IB1; IIB, IIC?, IIE?
A.A. Schmitt	Wa-141	Archaic	Potentially preserved camp with diverse activity areas.	IA1, IB2, IC1&4?; IIA1-2?
	Wa-142	Archaic	Potentially preserved camp.	IA1, IB2, IC1&4?; IIA1-1?

[a] Currently listed on or eligible for the National Register of Historic Places.

[b] Currently listed on the Oklahoma Landmark Inventory.

understand subsistence practices and changes in these strategies through time. Filling in of these gaps will perhaps resolve the question of whether there was near abandonment of the Southern Plains during the mid-Holocene.

Future Research

Previously recorded and investigated Archaic sites in Management Region 4 holds tremendous potential for future research, as do sites which are suspected to exist but have yet to be recorded. A fundamental research goal for the region is better documentation of Archaic assemblages and changes in their composition through time. Variations in these assemblages may reflect spatial differences in settlement patterns.

One of the most promising areas for research of this period is that of Archaic people's adaptations to changing environmental conditions. As findings from studies of pollen, animal remains, soils, and geomorphology accumulate, it is increasingly obvious that Oklahoma's Archaic people contended with dramatic climatic and environmental changes. Between 10,000 and 7000 years ago, a warmer, drier climate prevailed throughout much of the central portion of the United States. These conditions enabled prairie plant and animal communities to replace deciduous forests and spread slowly eastward. From 7000 to 4000 years ago, the warm, dry climate ameliorated and modern day plant and animal communities became established as forest zones moved slowly westward. During the earlier, drier period, western Oklahoma was probably more desert-like than now. To properly observe Region 4 Archaic people's adaptations to the desert-like conditions, greater attention must be directed to the physical setting of the sites and to subtle clues to site function. More detailed analysis of tools, and plant and animal remains left behind by these Archaic inhabitants will also perhaps lead to better understanding of environmental conditions during this period. These and a variety of other research topics for future study are presented in Table IV-6.

Table IV-6 Research Questions About The Archaic Period In Management Region #4.

MORPHOLOGICAL RESEARCH	CULTURE HISTORY RESEARCH	BEHAVIORAL RESEARCH	ECOLOGICAL RESEARCH
What are the characteristics of tool kits and assemblages used during particular segments of this period? Are specific projectile point styles representative of particular segments of this period? Are there raw material preferences and/or manufacturing traditions which can be identified for certain localities or for particular times? Can restudies of already recovered (and reported) assemblages further distinguish evidence for manufacturing, maintenance and usage systems? Can we better establish ties between implements and tasks? Many sites are dated principally through point typology comparisons, but is this typology (a static model) adequate and reasonable, or should it be revised (in light of a dynamic lithic reduction continuum)?	Can specific tool kits and assemblages be identified and related to a culture sequence for this region? Can ties be demonstrated among the assemblages and manufacturing practices manifest at particular times? To date, a reasonable system for synthesizing Archaic assemblages and sites has not been developed for this region, is there one? Several Archaic complexes appear present in the region; can these be better defined, dated, and arranged in a regional sequence?	Is the evidence for spatial and/or time restricted assemblages or manufacturing traditions sufficient to support recognition of different hunting gathering societies? What can a site's structure and contents reveal about the size, composition, and actions of its hunting-gathering inhabitants? Can series of contemporaneous sites be identified that will yield clues to the movements, activities, and seasonality of use by a hunting-gathering society or its subdivisions? Is there archeological evidence relevant to identifying locally or regionally different Archaic societies? Are there ethnographic models for group size, group composition, activities, and movement relevant for comparing and explaining the region's site layouts, site contents, site functions, and site distributions? What evidence exists for these societies participating in Southeast and Midwest trade networks established during this period?	What ecological changes are identifiable here between 8000 and 2000 years ago? When did these changes occur? In essence, what environmental conditions and natural resources existed when Archaic Period societies were present? What was the character(s) of Archaic people's settlement and resource use during these 6000 years? Is there evidence bearing on questions about the presence and number of bison during this period? (Some archeologists propose that bison were not always present and that their numbers fluctuated greatly.) What evidence exists for the effects of a drying trend between 7000 and 4000 years ago on this region's biotic communities and human inhabitants? How does this evidence affect current ideas about Archaic resource use, site functions, and site distribution? Neighboring Archaic people began cultivating some native plants; is there evidence for such practice here? If so, what effects did this have on these people's economy and organization? Sites scattered throughout this region attest to marked alluviation, including episodic deposition; can paleoecological, chronological, and archeological studies enhance knowledge of Archaic adaptations to local and regional ecological changes?

Factors Affecting Archaic Sites

Factors affecting the Archaic study units in Management Region 4 are quite similar to those described for the Paleo-Indian Period. In general, activities such as vandalism and farming practices have not been significant. More serious problems affecting these sites have been dramatic increases in oil and gas well drilling activity, construction of gas pipelines, urban expansion, and the creation of lakes and other water impoundments by various federal agencies.

Although vandalism and pot huting have not been serious problems (due in part to the buried nature of many of the deposits), there have been instances where upland Archaic campsites (primarily in Comanche, Caddo, and Washita counties) have been badly distrubed or destroyed by unthinking or uncaring relic collectors or oil field workers. There have also been isolated cases of destruction by pot hunters of Archaic deposits exposed by stream erosion in the canyons of Caddo and Canadian counties.

Archaic sites are likely to be affected by farming practices in the same fashion as Paleo-Indian sites: the more deeply buried deposits escape damage but upland hunting camps and workshops are extremely susceptible to considerable churning from deep plowing, agricultural terracing, and land leveling. Specifically, deep plowing and the other activities results in the shallow deposits of tools and trash being removed from their original context and sometimes being mixed with earlier and/or later remains. Because of the fragile nature of these Archaic campsites, interpretation of their assemblages is irreparably lost by such mixing. Deflation of soil surfaces (both as consequence of farming and as a natural occurrence has also resulted in Archaic tools and trash being mixed with other cultural deposits and being spread from their initial point of deposition. While farming activities and various forms of soil deflation have contributed to the disturbance and destruction of the

Archaic study unit, an inventory of specific sites lost from such actions has yet to be prepared.

One of the major threats to Archaic sites and assemblages is from construction activities in association with drilling of oil and gas well and development of gas pipelines. Much of Region 4 overlies the renowned Anadarko Basin, a geological feature containing nationally important oil and gas reserves. During the past five years drilling activity in this area increased dramatically (over 500%), leading to marked disturbance of lands not previously examined for cultural resources. Because federal laws require archeological evaluations prior to construction of wells or pipelines on federal or Indian lands, or on projects under federal jurisdiction, professional archeologists have surveyed many of these proposed energy projects. These surveys have resulted in the identification of Archaic camps and workshops. Most identified sites have been avoided during construction activity, thus preserving their remains for future study. However, construction of well pads has created a number of secondary affects which are contributing to the erosion of archeological sites. Drilling activity on the margins of canyons in Caddo and Canadian counties has led to substantial increases in erosional cycles within the canyons. As previously noted, a number of these canyons have Paleo-Indian as well as Archaic occupations. It is also unfortunate that some energy related activities are exempt from federal requirements. Here, oil and gas drilling activities and pipeline construction (primarily on lands with private surface and private mineral rights) are increasingly destroying the archeological record of Management Region 4.

Since 1970, population increases exceeding 10% have been recorded for Grady, Canadian, Dewey, Kingfisher, Jefferson, and Stephens counties. Mustang, Chickasha, Lawton, Clinton, and Weatherford have experienced population increases ranging from 13 to 64%. Such population growth has resulted in urban sprawl of

new housing additions as well as new roads, sewer lines and treatment plants, and water plant facilities. In Management Region 4, housing additions near Lawton and in Canadian County have led to the destruction of Archaic camps. Borrow for highway construction near Lawton uncovered and damaged the Gore Pit Site near Lawton while other highway projects have affected Archaic camps in Canadian, Kiowa, and Tillman counties. Due to the intensity and widespread nature of these urban developments in Region 4, it is suspected that many archeological sites (including Archaic occupations) have been destroyed without documentation of their remains.

The final factor that has had considerable impact on Archaic sites in the region has been the construction of SCS flood control impoundments and large water supply reservoirs such as Foss and Ft. Cobb reservoirs. To date, 43 watersheds are recognized in Region 4 as needing flood and erosion protection. These watersheds contain at least 539 SCS-built impoundments. Many of these have been surveyed and reported on by archeologists from the Oklahoma Conservation Commission. Their efforts led to the identification and study of a number of Archaic sites within these impoundments. Construction of approximately 150 more impoundments will probably affect an unknown number of unrecorded Archaic camps and workshops. In addition to the SCS impoundments, eight major reservoirs have been built within or adjacent to Management Region 4. Examination of these reservoirs resulted in the recording of numerous archeological sites though none of the projects included intensive excavation programs. Thus, we have little information on Archaic sites within these areas. However, a number of Calf Creek sites (Middle Archaic) have been reported as being badly damaged by shoreline erosion at Lake Altus. It is also believed that more Archaic sites will be adversely affected by the construction of five proposed reservoirs (Snyder, Verden, Cookietown, Weatherford, and

Hydro) and some 500 miles of canals planned for a state-wide water transport system.

Treatment of Region 4's Archaic Sites

Sites and assemblages of the Archaic study unit are widely distributed throughout Management Region 4. Based on existing records, all portions of the region have potential for significant but unrecorded Archaic occupations. Archaic camps are known to occur in a diversity of settings; sites are being found not only in the uplands but also along terraces of major streams and rivers such as the Washita River. However, the settlement pattern has not been firmly established and it is difficult to evaluate the association of various site types with different environmental/phsyiographic settings. Currently, it does not appear feasible to preclude any settings as having little potential for specific site types. For example, although upland settings are most highly associated with small hunting camps and workshops, this does not preclude the possibility of base camps in this setting.

Gaps in our knowledge emphsized a need for more data on the variability in site types, settlement patterns, and tool assemblages for various Archaic Period occupations. Consequently, sites with relatively undisturbed contexts capable of resolving these gaps are worthy of preservation and/or further study. Much like Paleo-Indian sites, Archaic occupations are likely to be buried by soil deposits and specialized techniques must be utilized to adequately examine an area for the presence of buried Archaic remains.

Woodland (A.D. 1 to A.D. 900)

Characteristics

Over much of the central and eastern United States, the people of this study unit continued hunting-gathering practices like those of the Archaic Period but also adopted farming (squash, sunflowers, and occasionally, corn), pottery making, and the use of the bow and arrow. In practicing intensified

gathering and limited horticulture, these people became more sedentary, sometimes living in permanent or semi-permenent villages. With the adoption of pottery, they acquired the ability to store and prepare foodstuffs better than their predecessors. Due to the increasing sedentism and food production capabilities, some societies developed complexly structured social systems wherein some individuals had greater status than others. Elaborate rituals were often associated with burial of these "leaders" after their death.

This is one of the least understood periods in Oklahoma prehistory. During this time, a sedentary farming lifestyle was introduced or adopted by people living along the Grand River in northeastern Oklahoma, in the northern and central Cross Timbers, and in the Ouachita Mountains of southeastern Oklahoma. However, our present information does not allow us to determine whether this farming, settled way-of-life was practiced by immigrants or by Archaic people who had learned it from neighbors to the north or east.

People who lived in the Woodland Period in Oklahoma occupied numerous site types including base camps (hamlets?), temporary hunting and gathering camps, bison processing stations, kill sites, workshops, and isolated special activity areas. The material inventory consisted of small side-notched arrowpoints, corner-notched and stemmed dart points, and a variety of scrapers, drills, and bifacially chipped knives. Pottery made at this time was generally large and cord-marked with conical bottoms. In horticultural pursuits, they used grinding stones (manos) and grinding basins for the processing of corn and wild grains. The increased complexity of social system led to more ritualized treatment of the dead and increasing sophistication in trade and exchange with distant groups.

Existing Data

A substantial number of Woodland Period sites have been recorded for Management Region 4 and undoubtedly many other exist but have yet to be

recorded. However, many of the recorded sites date to the terminal Woodland or to a transitional time between the Woodland and Plains Village periods, and very little information exists for Woodland occupations dating to between A.D. 1 and A.D. 700. The limited data we have for the early portion of the period suggests a dispersed pattern of camps and workshops. Presently, we don't know whether or not these sites were inhabited by decendants of Archaic people, by immigrants from elsewhere or both. In fact, because none of these earlier Woodland sites are radiocarbon dated, we aren't sure when people began making pottery and using tools and pottery characteristic for the period.

We have considerably better evidence for the terminal Woodland occupations. These occupations, representing transitional developments into the following Plains Village Period, are principally known from the Mouse, Phillips, and Goodman I and II hamlets or villages in Custer County and from the Duncan-Wilson Shelter, the Ross Canyon Site, and 34Cd-257 and 34Cd-258 in Caddo County. The four Caddo County sites are believed to be temporary, seasonal, camps visited by Woodland hunting and/or gathering parties. Although these people probably resided in small sedentary villages in floodplain settings like those reported for Custer County, such sites have yet to be reported in Caddo County. Data on these sites and others attest to widespread occupation of Management Region 4 during the terminal end of the period. A number of settlement types, found in a variety of physiographic settings, have been identified for these later occupations and include sedentary villages, temporary hunting and/or gathering camps, and workshops. The Duncan-Wilson Shelter and 34cd-257 and 34Cd-258 sites in Caddo County and the Sheppard Site in Washita County are currently listed on or are considered eligible for the National Register of Historic Places. Those Woodland sites meriting further study and preservation are listed in Table IV-7.

Gaps in our Knowledge

Most information for the Woodland Period has been derived from the excavation and study of late Woodland assemblages. Our data base for sites occupied between A.D. 100 to A.D. 700 is almost nonexistant. Documentation is needed for earlier Woodland sites in respect to settlement patterns, site types, assemblage composition, and especially radiocarbon dates. We also need to study plant and animal remains from these earlier Woodland sites for evidence bearing on subsistence practices. The transitional Woodland-Plains Village sites of the "Custer Phase" are better understood but there remain considerable gaps in our knowledge of these sites as well. Sedentary villages and camps have been identified, but we lack information on settlement patterns as well as subsistence practices. Once studied, Woodland hamlets and villages may yield clues to different settlements practices, the adoption of agriculture, and to ties with A.D. 300-700 settlers of the Cross Timbers region to the east.

Future Research

Based on the absence of information for the earlier portion of the Woodland Period, an important consideration for future research is the identification and study of Woodland sites occupied between A.D. 1 and A.D. 700. Tool assemblages of these inhabitants need to be documented as well as their changes through time. It also cannot be ascertained whether Woodland developments at this time represent one cultural tradition or various cultural groups. Instrumental to our understanding of the Woodland study unit is qualifying the origins of these people and when and why they adopted plant domestication.

Further study of the transitional Woodland-Plains Village settlements of the Custer Phase could enhance not only our comprehension of the development of the Plains Village agricultural system but also the intensification of a

Table IV-7. Woodland Sites Meriting Research and Preservation in Management Region 4.

	Site number	Cultural affiliation	Significance	Recommendations
Blaine County				
Scheffler	B1-36	Woodland or Plains Village	Well preserved camp or settlement buried under slope wash.	IA1, IB1, IC3; IIA1-B?
Caddo County				
Salyer Lake	Cd-1[b]&2	Woodland ? and Plains Village	Several habitation areas that contain deeply stratified middens and hearths.	IIA1-2, IIB, IIC1-2, IIE1, 3-5.
Cooley #1	Cd-10	Woodland ? and Plains Village	Potentially preserved camp or settlement with refuse that may result from different habitations.	IA1, IB1, IC3; IIA1-2?
Duncan-Wilson Shelter	Cd-11[a]	Woodland Plains Village and Protohistoric	Previously excavated and dated shelter with stratified midden.	IIB, IIC, IID1, IIE3-4.
Log Cabin "B"	Cd-41	Woodland and/or Plains Village	Potentially preserved village that may have been inhabited during Woodland-Villager transition.	IA1, IB1, IC3-4; IIA1-2?
Chalepah	Cd-68	Archaic and/or Woodland, and Historic	Open camp with potentially different habitation deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Carnegie Canyon	Cd-76	Archaic, Woodland, and Plains Village	Paleosols and middens in 40 feet of sediments exposed by eroding canyon.	IA1, IB1, IC4; IIA1-2?, IIC1-2, IIE1-5.

Table IV-7. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Caddo County				
	Cd-114	Archaic or Woodland	Well preserved midden with sterile overburden.	IA1, IB2, IC1; IIA1-2?
Sally M	Cd-115	Woodland or Plains Village	Well preserved midden along creek bank.	IA1, IB2, IC1&4; IIA1-2?
Mack	Cd-116	Archaic or Woodland	Buried habitation zone on a low knoll; partially exposed during house construction.	IB1; IIA1-2? IIB, IIC, IIE.
White Canyon "f"	Cd-188	Archaic and/or Woodland ?	Large open camp that seems to have preserved habitation deposits.	IA1, IB1, IC4; IIA1-2?
Dead Woman Creek "E"	Cd-190	Archaic and/or Woodland ?	Sizeable open site that may have preserved habitation deposits.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Karlin #1	Cd-224	Woodland	Fairly well preserved camp and knapping station.	IA1, IB2, IC1&4; IIA1-2?
Delaware Creek	Cd-257[a] Cd-258	Woodland and Plains Village	Tested deep deposits that contain stratified middens and paleoecological information.	IC3-4.
	Cd-266	Archaic or Woodland	Small but well preserved camp.	IA1, IB2, IC4; IIA1-2?
Canadian County				
Hatcher Shelter	Cn-8	Woodland and Plains Village	Apparently stratified, well preserved deposits	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Custer-Mach	Cn-66	Woodland, Plains Village	Partially disturbed village with potential for intact deposits, features.	IB2-3, IC

Table IV-7. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Comanche County				
	Cm-67	Archaic Woodland	Open camp with some preserved deposits.	IB2, IC1&4; IIA1-2?
	Cm-71	Woodland ?	Potentially preserved camp or settlement.	IB2, IC1-4; IIA1-2?
Little Medicine Creek	Cm-195	Woodland and/or Plains Village	Large open camp that may have well preserved habitation deposits.	IA1, IB1; IIA1-2?, IIC1-2?, IIE1, 3-4?
Sharp	Cm-228	Woodland and/or Plains Village	Potentially preserved camp or settlement.	IB1, IC1&4; IIA2-2?
Custer County				
Mouse I	Cu-25[b]	Woodland and Plains Village	Partially studied hamlet or village; still has preserved habitation features.	IB2, IC1-2; IIA2, IIB, IIC, IID3.
McNeil	Cu-44	Woodland or Plains Village	Deeply buried camp or settlement; should yield well preserved remains as well as data on past environments.	IB1&3; IIA1-2?, IIB?, IIC3?, IIE1-6?
Hodge #2	Cu-59	Woodland or Plains Village and Historic	Traces of historic dugout near partially preserved hamlet that has trash pits, houses, and possibly burials.	IA1, IB1-2, IC1&4; IIA1-2?
Carley	Cu-81	Archaic ? or Woodland	Sizeable camp that has some preserved habitation deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-7 - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Wild Horse	Cu-88	Woodland or Plains Village	Partially preserved hamlet or village with habitation features and midden on upland setting.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Gwartney #1 Gwartney #3	Cu-114 Cu-115	Woodland or Plains Village	Villages with intact deposits and features likely.	IB1; IIA1-2, IIB, IIC, IIE
Dewey County				
Edwards Wofkshop	Dw-4	Woodland ?	Partially preserved work-shop of Alibates-like chert.	IA1, IB1; IIA1-2?
Grady County				
Phipps	Gd-87	Woodland ?	Small temporary camp with potentially preserved deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Kingfisher County				
Marlow Britt	KG-23 KG-24	Woodland	Camps with good potential for intact deposits and possibly features; can provide information on culture history and subsistence.	IB1-2, IC; IIA, IIB, IIE.
Washita County				
Vandever	Wa-18	Woodland and/or Plains Village	Largely preserved major site with traces of middens, pits, and houses; may have two occupations.	IB2, IC1&4; IIA1-2?
Sheppard	Wa-134[a]	Woodland ?	Small potentially preserved camp or hamlet; unplowed; in Cedar Creek District.	IB1; IIB, IIC?, IIE.

[a] Currently listed or eligible for the National Register of Historic Places.

[b] Currently listed on the Oklahoma Landmarks Inventory.

largely hunting-gathering Archaic pattern into the sedentary horticultural pattern of the Custer people. Even though previous studies have been conducted of this Woodland group, much remains to be examined through careful excavation and analysis. For example, little information exists on whether social systems in west-central Oklahoma exhibit any similarities to Woodland groups in other regions. Patterns in treatment of the dead and trade with distant groups are also viable concerns for further study. A number of research questions pertaining to Woodland occupation of Region 4 have been developed and are presented in Table IV-8.

Factors Affecting Regions 4's Woodland Sites

The presence of Woodland occupations in a diversity of physiographic settings has created a situation wherein many different types of land-alteration practices are adversely affecting these resources. Where urban development, building of lakes and reservoirs, and vandalism have destroyed or disturbed a number of Woodland sites, greater effects have resulted from agricultural practices, the drilling of oil and gas wells, and pipeline construction.

Plowing, disking, and increasing farmland erosion have disturbed Woodland sites in Management Region 4 for nearly 100 years. Before 1930, when horse-or-mule-drawn machinery was common, most farming affected only the upper 3 to 4 inches of these sites. However, with the advent of powerful tractors, one-ways and subsoil tillers can easily plow through soils to a depth of 24 inches or more. Consequently, current farming activities are annually churning previously unscathed floors of Woodland houses, the upper halves of trash pits, and burials. Recent practices designed to control erosion such as agricultural terracing, contour plowing, and land leveling have also resulted in Woodland sites being badly damaged or destroyed.

Table IV-8 Research Questions About The Woodland Period In Management Region 4.

MORPHOLOGICAL RESEARCH	CULTURE HISTORY RESEARCH	BEHAVIORAL RESEARCH	ECOLOGICAL RESEARCH
Are there tool kits and assemblages attributable to this period? If so, what are their characteristics? Are specific projectile points, pottery, or other implements representative of particular segments of this period? If so, what are their attributes? Are there resource preferences and/or manufacturing traditions that can be identified for specific localities and/or particular times? The assemblage for the *Custer Focus* is well known and dated, but are there earlier assemblages? If so, what are their characteristics? Can restudies of already reported assemblages aid in establishing ties between implements and tasks? Thick, cordmarked pottery typifies many sites; what attribute studies will help delineate characteristics of certain times or particular localities?	Can specific tool kits and assemblages be identified that are representative of a culture sequence for this region? What kinds of ties are demonstrable between assemblages and manufacturing practices manifest during specific times? Is it possible to trace woodland manufacturing practices to those of native Archaic people? What are the origins of Woodland culture(s) manifest here? Is there an appropriate system for synthesizing and interpreting assemblages and sites of different ages and distributions? Presently, the *Custer Focus* is the only recognized culture with potential Woodland Period ties, but findings at Duncan-Wilson Shelter and the Delaware Creek sites seem somewhat different. Are there distinct tool kits or assemblages that comprise a cultural sequence for this region?	What can a site's location, structure, and contents reveal about the number, composition, and actions of its inhabitants? Can contemporaneous sites be identified in one locality that will yield clues to the actions, movements, and season of use by one society? Are there local or regional distributions of assemblages that comprise evidence for different Woodland communities and/or societies? If so, what clues exist for explaining economic, social, and/or political organizations? Is there evidence for economic, social, and/or political ties with neighboring or distant groups. Although similar to Woodland cultures in the east and northeast, this region's sites aren't as varied in character or function; is this due to economic, social, religious, and/or political practices? Most excavated sites have yielded uncertain clues to site structure and function; can data collection be improved to enhance recovery of findings relevant to questions about function, group size and organization, and season of use? Did these people participate in the ceremonialism known elsewhere during this period?	What environmental conditions and natural resources existed during this period? Are there clues that these conditions changed? What was the character of Woodland people's settlement and resource use during these 700 years? How did different natural settings affect the character of Woodland people's settlement? At Delaware Canyon (Caddo County), Woodland occupations are believed to have occurred when moist conditions were prevalent but that drying conditions began later; do other Woodland occupations in this region reflect adaptation to such an environmental sequence? The studied sites rarely yield evidence for permanent habitation; were these people as nomadic as the sites appear? What were Woodland settlement practices here, and did they change through time? Besides flints favored for knapping, what resources (plants and animals) were used during this period?

Since the 1970's, various energy related projects have also been adversely affecting the Woodland study unit. Renewed oil and gas drilling activities have resulted in sludge pits, drilling platforms, and access roads affecting lands that had only been slightly disturbed in prior years. Some of these lands are in physiographic settings which are highly conducive to Woodland Period settlements. Fortunately, many of the projects have taken place on federal lands or had some federal involvement and were surveyed by professional archeologists. These surveys led to the identification and preservation of a number of sites including one village with a possible Woodland component and some Woodland workshops. Construction of well pads adjacent to canyons in Caddo and Canadian counties has resulted in the destruction of buried Woodland deposits by increased erosional activity.

The construction of gas pipelines also resulted in large areas of Management Region 4 being transected by pipeline trenches. Some gas transmission projects such as the ARKLA pipeline were surveyed and numerous sites recorded and preserved by avoidance. One terminal Woodland occupation, the Hodge Site (Custer County) was test excavated during the ARKLA pipeline and was avoided during further construction. There are, unfortunately, a number of cases where pipelines have not been examined for their impact on archeological resources. We have documented cases of a number of these lines damaging buried Woodland deposits, particularly where pipeline trenches have cut across alluvial valleys. To date, no specific inventory of sites damaged by pipeline construction has been prepared.

Besides agricultural practices and energy related activities, the construction of numerous SCS watershed impoundments and large reservoirs has contributed to the destruction of Woodland Period sites. To date, 539 SCS impoundments have been constructed in 43 different watersheds. Archeologists have documented Woodland occupations within a number of these water retarding

structures. In the Delaware Canyon Project in Caddo County, archeologists from North Texas State University investigated two important camps with Woodland assemblages (34Cd-257 and 34Cd-258). Woodland camps are thought to be numerous in canyon settings, and many additional sites may be affected by the proposed construction of an additional 142 impoundments. In addition to the SCS impoundments, eight major reservoirs were built around or within Management Region 4. These include the now existing Altus, Foss, Ft. Cobb, Mountain Park, and Waurika reservoirs. Most of these lakes were surveyed for archeological sites, although test excavation and mitigation programs were seldom undertaken. A number of sites were recorded during these surveys but little follow up study was attempted. It is likely that a number of terminal Woodland villages were badly damanged by inundation, whereas others are now being gradually destroyed by shoreline erosion. It is also anticipated that additional Woodland sites will be adversely affected by the construction of five new reservoirs (Snyder, Verden, Cookietown, Weatehrford, and Hydro) and construction of 500 miles of pipeline and canals for a water conveyance system.

Various types of activities related to urban development are threatening Region 4 Woodland sites. Population has increased approximately 10% in the region over the past years. Within the counties comprising Management Region 4, most of the growth has been focused in or around cities and towns such as Chickasha, Lawton, Yukon, Clinton, Weatherford, and Mustang. Population increases in these areas ranged from a low of 14% for Lawton to a high of 64% for Yukon. This population growth has created new demands for additional housing, improved water and sewer systems, and better roads. Thus, a variety of development projects which alter the landscape are in progress. Although we have no reports of Woodland sites being destroyed by these actions, Woodland occupations known to exist near towns will, no doubt, be adversely affected when housing and industrial expansion soon takes place.

Unlike the following Plains Village Period, the Woodland study unit has not been seriously affected by vandals and looters. Undoubtedly, some Woodland sites, particularly transitional woodland Plains Village settlements of the Custer Phase, are quite vulnerable to looting; their remains are often exposed by deep plowing and other agricultural practices. Woodland sites have also been damaged where isolated burials have eroded from buried Woodland deposits, encouraging unauthorized digging for additional burials and artifacts. There have also been reports of oilfield workers digging in sites known to have Woodland deposits.

Treatment of Region 4's Woodland Sites

Woodland sites have been reported throughout the region in a variety of physiographic settings. However, most of these sites date to the latter part of the Woodland Period. Thus, for the earlier portions of the study unit, it is difficult to evaluate where Woodland sites may be found. No physiographic settings or environmental zones can be excluded from consideration when assessing the potential for these remains. It is also true that almost any early Woodland site would have potential for resolving some of our questions about the developmental aspects of this period and should be preserved for future study.

Much more is known about Custer Phase sites which were occupied during the transition to the Plains Village Period. However, the information we have is only partially complete. We know these people lived in sedentary villages in floodplain settings and in camps in the canyons of Caddo County although little is known about other aspects of their settlement pattern or subsistence practices. Upland settings may contain significant information on types of specialized activity sites occupied during the terminal Woodland. We continue to need information on agricultural developments during the period, the types of animals hunted and which edible wild plants were being utilized. Sites

containing information on aspects of the social system, settlement patterns, and subsistence economies must be considered as significant in enhancing our understanding of this critical period in the development of Plains societies and should be preserved for further study.

Village Farming (A.D. 800-1500)

Characteristics

Beginning around A.D. 800-850, large societies of farming people were establishing themselves along major river systems in Oklahoma (including those of Region 4). These people depended heavily on raising corn, beans, and squash which was supplemented by hunting game and gathering seasonally available wild food plants. Although groups throughout the state shared similar economies and levels of technology, each developed variations in farming and village life patterns. In Management Region 4 (the Mixed Grass Prairie) and within many areas of the Southern Plains, environmental conditions led to a pattern focused on prairie-type resources. This pattern is generally referred to as a Plains Village adaptation.

As alluded to in the description of this study unit, people lived in small to moderate-sized villages concentrated on terraces of major streams and rivers. Although villages might be periodically relocated, habitation of these sites was more or less permanent. Males might also leave the village on lengthy hunting trips. There was some diversity in the size of the settlements with villages, hamlets, and isolated farmsteads being the primary residence types. Other site types found for this period include temporary hunting camps, bison kill sites, limited activity areas, and quarry-workshop locations.

Dramatic increases in population size compared to the proceeding Woodland Period led to greater complexity in social organization. People at this time probably existed in societies where some individuals had greater status than

others. It is likely that this status was inherited in some cases rather than being acquired through an individual's leadership capabilities.

Villages usually contained a formal cemetery area where some burials received special treatment with exotic grave goods present. An extensive trade network was also in existence for much of the period with materials flowing between the Southern Plains, the Southwest, and eastern Texas.

Existing Data

Due perhaps to their more recent deposition and lessened effects from long-term geomorphologicals processes such as alluviation and erosion, numerous sites of this study unit have been identified throughout the region. Between A.D. 1000 and A.D. 1450, Management Region 4 was one of the most densely inhabited areas of prehistoric Oklahoma. The abundance of settlements also attest to a diversity in site types distributed across a wide range of physiographic settings. Numerous farmsteads, hamlets and villages occur along the Washita and Canadian rivers and their principle tributaries. Evidence also exists for the presence of temporary hunting camps, workshops, and specialized activity loci in upland settings and in the canyons of Caddo and Canadian counties. These people living in Region 4 are generally referred to as belonging to the Washita River Phase.

Excavations at the McLemore, Heerwald, Max Thomas, and Brown sites exposed many details about these sedentary villagers. House patterns, trash pits, middens, and cemeteries bear witness to prolonged use of these sites. Typically, they occur on terraces that are on or near fertile alluvial soils; occasionally these settlements are on prominent ridges overlooking rich bottomlands. No matter the setting, these sites commonly yield charred corn as well as bison bone. Hoes and digging stick tips exemplify the importance of horticulture to these people. Hunting and gathering were also important activities, and although often neglected, small upland camps like the

Duncan-Wilson Shelter, Ross, and 34Cd-258 are yielding much-needed information on Plain's Villager's land use and hunting-gathering activities beyond their settlements and farmlands. Besides being industrious farmers, hunters, and gatherers, the Plains Villagers of Management Region 4 were adept traders. Exotic pottery vessels, stone and shell ornaments, and stone tools made from non-local cherts recovered from their settlements are clues to trade networks that ultimately extended to the Southwest, eastern Oklahoma, the Mississippi Valley and the Gulf Coast.

Currently, the Hodge and Little Deer sites in Custer County, the Devils Canyon Site in Kiowa County, and the Jewett Site in Grady County are listed on the National Register of Historic Places. A number of Plains Village occupations also occur in Cedar Canyon (Washita County) which is listed as a district in the National Register. The only site listed on the National Register as well as the prestigious Historic Landmarks Inventory is the McLemore Site in Washita County. Those Plains Village sites in Management Region 4 meriting further study and/or preservation are presented in Table IV-9.

Gaps in our Knowledge

Although close to 150 archeological sites recorded in Management Region 4 appear to be well preserved settlements, hunting-gathering camps, or other special task areas attributed to Plains Villagers, these comprise but a fraction of the many sites inhabited between A.D. 1000 and A. D. 1500. Based on our current information, during these 500 years Region 4 undoubtedly supported one of the largest populations of prehistoric people known for Oklahoma and the Southern Plains. To date only four settlements and three camps, all widely separated, have been partially excavated and the materials thoroughly analyzed. Thus, although we have substantial information on general assemblage composition and use of trash pits, we have little information on

Table IV-9. Plains Village Sites Meriting Research and Preservation in Region 4.

	Site number	Cultural affiliation	Significance	Recommendations
Blaine County				
Scott-Sherry	B1-1	Archaic and Plains Village ?	Potentially well preserved open site with debris from several different habitations.	IA1, IB2; IIA1-2?, IIB? IIB?, IIC?, IIE?
Paynes Canyon	B1-2	Plains Village	Possibly well preserved open camp or village.	IA1, IB2; IIA1-2?, IIB?, IIC?, IIE?
White #1	B1-3	Plains Village and Historic	Open camp with possibly preserved deposits; also was location of Arapaho camp ground in late 1800s.	IA1, IB2; IIA1-2?, IIB?, IIC?, IIE?
Payne	B1-4	Paleo-Indian and Plains Village	Potentially stratified camps in eroding canyon; may still have preserved deposits relevant for studying past people and environments.	IA1, IB2; IIA1-2?, IIB?, IIC?, IIE?
Wrede	B1-6	Plains Village	Potentially well preserved hamlet or village with habitation features.	IA1, IB2; IIA1-2?, IIB?, IIC?, IIE?
Rhymer	B1-8	Plains Village	Large open site with potentially preserved habitation features near canyon mouth.	IA1, IB2; IIA1-2? IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Blain County				
Kurtz	B1-9	Plains Village	Possibly early village with house remains and other preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Lesperance	B1-17	Plains Village	Potentially preserved camp or village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Shawver	B1-28	Plains Village	Preserved village with traces of habitation features and stone tools of exotic material.	IA1, IB1, IC2; IIA1-2, IIB, IID3.
Jesse Chisholm	B1-30	Plains Village	Potentially preserved open camp near locally important spring.	IA1, IB3, IC2?; IIA1-2?, IIB?, IIC?, IID2?
Shantz #1	B1-32	Plains Village	Well preserved open camp or settlement that may predate A.D. 1000.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Scheffler	B1-36	Woodland or Plains Village	Well preserved camp or settlement bruied under slope wash.	IA1, IB1, IC3; IIA1-B?
Carman	B1-46	Archaic ? and Plains Village	Large eroded camp with some preserved deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Caddo County				
Salyer Lake	Cd-1[b]&2	Woodland ? and Plains Village	Several habitation areas that contain deeply stratified middens and hearths.	IIA1-2, IIB, IIC1-2, IIE1, 3-5.
Wilson Springs	Cd-7	Plains Village and Historic ?	Open camp and possible settlement that may have preserved habitation features.	IA1, IB1, IC3; IIA1-2?
Keith	Cd-8[b]	Plains Village	Possible well preserved village with houses, refuse pits, and other habitation features.	IA1, IB1; IIA2?, IIB?, IIC?, IIE?
Cooley #2	Cd-9	Plains Village	Probable settlement with preserved remains of houses and other habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Cooley #1	Cd-10	Woodland ? and Plains Village	Potentially preserved camp or settlement with refuse that may result from different habitations.	IA1, IB1, IC3; IIA1-2?
Duncan-Wilson Shelter	Cd-11[a]	Woodlands Plains Village and Protohistoric	Previously excavated and dated shelter with stratified midden.	IIB, IIC, IID1, IIE3-4.

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Caddo County				
	Cd-12	Plains Village	Potentially preserved village with remains of houses and other habitation features.	IA1, IB1; IIA1-?, IIB?, IIC?, IIE?
Fowler	Cd-16[b]	Plains Village	Small village or hamlet with potentially preserved habitation features.	IA1, IB1; IIA2?, IIB?, IIC?, IIE?
Thomas-Buckmaster	Cd-36	Plains Village	Probable village with potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Log Cabin "B"	Cd-41	Woodland and/or Plains Village	Potentially preserved village that may have been inhabited during Woodland-Plains Village transition.	IA1, IB1, IC3-4; IIA1-2?
Dead Man's Canyon	Cd-42[b]	Plains Village	Tested rockshelters that contain stratified middens with well preserved contents.	IA1; IIA2, IIB, IIC, IIE1, 3-5.
Cardwell	Cd-45	Plains Village	Potentially preserved farmstead or hamlet near major village (34Wa-5)	IA1, IB1, IC4; IIA1-?
Taylor	Cd-47	Plains Village	Potentially preserved village with habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendatios
Caddo County				
Domebo Canyon	Cd-50[b]	Paleo-Indian, Archaic, and Plains Village	Previously studied mammoth kill; other sites are nearby.	IB1, IC3; IIA2?, IIB?, IIC?, IIE?
Carnegie Canyon	Cd-76	Archaic, Woodland, and Plains Village	Paleosols and middens in 40 feet of sediments exposed by eroding canyon.	IA1, IB1, IC4; IIA1-2, IIC1-2, IIE1-5.
Hendrick	Cd-80	Plains Village and Historic	Scattered prehistoric debris near former site of historic trading post.	IA1, IB1, IC4?; IIA1-2?
Sally M.	Cd-115	Woodland or Plains Village	Well preserved midden along creek bank.	IA1, IB2, IC1&4; IIA1-2?
Swift #1	Cd-140	Plains Village	Village with good potential for structures and other features.	IB1; IIA1-2, IIB, IIC, IIE
Ft Cobb Lake "A"	Cd-181	Plains Village	Probable village with some preserved features.	IB2, IC1&4; IIA1-2?
Inlow	Cd-187	Paleo-Indian and/or Plains Village	Open camp with potentially preserved deposits from different habitations.	IA1, IB1, IC4; IIA1-2?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
White Canyon "T"	Cd-208	Paleo-Indian and Plains Village	Preserved open site with horizontally different habitation deposits.	IB2, IC1&4; IIA1-2?
Fisher Canyon #3	Cd-218	Plains Village	Upland camp with deposits being eroded by creek.	IA1, IB2, IC1-4?; IIA1-2?
Delaware Creek	Cd-257[a] Cd-258	Woodland and Plains Village	Tested deep deposits that contain stratified middens and paleoecological information.	IC3-4.
	Cd-274[a]	Paleo-Indian ? and Plains Village ?	Elephant remains and nearby camp debris; one of several sites in Cedar Creek watershed.	IA1, IB1, IC4?
Canadian County				
Weil	Cn-2	Plains Village	Large settlement with potentially preserved remains of houses and other habitation features.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Vickery	Cn-7	Plains Village ?	Possibly buried camp or village; may be excellently preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Hatcher Shelter	Cn-8	Woodland and Plains Village ?	Apparently stratified, well preserved deposits.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Canadian County				
Jesse Chisolm	Cn-10	Plains Village and Historic	Potentially preserved camp or village; historic grave and important 1800s drover crossing nearby.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Valley	Cn-24	Plains Village	Likely late prehistoric encampment with some preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Jess Roberts Crossing	Cn-37	Plains Village and Historic	Noteworthy drover crossing near a well preserved prehistoric village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Jess Roberts Bluff	Cn-38	Plains Village	Well preserved camp or village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Cedar Creek Shelters 1-2	Cn-47 Cn-48 Cn-49	Plains Village	Dry shelters with well preserved middens; probably stratified.	IA1, IB1, IC4; IIA1-2?
Nice Shelter	Cn-50			
Give-me Shelter	Cn-56			
Custer-Mach	Cn-66	Plains Village	Potentially preserved hamlet or village.	IA1, IB1, IC4; IIA1-2?
Comanche County				
Jones Ridge	Cm-3	Archaic and Plains Village	Quartz knapping station with some possibly preserved deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Comanche County				
Pig Farm Crossing	Cm-26	Plains Village	Apparently preserved hamlet with midden and other features.	IIA1-2, IIB, IIC3, IIE3-6.
Punch Bowl	Cm-38	Plains Village and Historic	Open camp with some preserved hearths; may have early 1800s component.	IB2, IC1&4; IIA1-2?
Archery Range	Cm-69	Archaic ? and Plains Village	Large open site with some potential for preserved deposits and features.	IB2, IC1&4; IIA1-2?
	Cm-85	Plains Village ?	Potentially preserved camp or settlement.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
	Cm-123	Plain Village	Large upland camp with hearths and thin midden.	IB1; IIA1-2?, IIC?, IIE?
Cedar Creek	Cm-130	Plains Village	Camp with nearby burials; partially preserved camp deposits.	IB2, IC1&4; IIA1-2?
Little Medicine Creek	Cm-195	Woodland and/or Plains Village	Large open camp that may have well preserved habitation deposits.	IA1, IB1; IIA1-2?, IIC1-2?, IIE1, 3-4?
Cutthroat	Cm-218	Plains Village and Historic	Potentially preserved open camp near springs; also general location of 1800 Kiowa-Osage battle.	IA1, IB1; IIA1-2, IIB?, IIC?, IIE1-3?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Comanche County				
Tony Pony	Cm-227	Plains Village	Open camp with potentially preserved deposits and habitation features.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE1-3?
Sharp	Cm-228	Woodland and/or Plains Village	Potentially preserved camp or settlement.	IB1, IC1&4; IIA1-2?
Silo	Cm-229	Plains Village	Buried camp or settlement; should have well preserved features, organic remains, and site structure.	IB1; IIA1-2?. IIB?, IIC?, IIE2-3, 6?
Ninemile Slough	Cm-231	Plains Village	Camp or settlement buried by a foot of alluvium; should have well preserved features and camp structure.	IB1; IIA1-? IIb?, IIC?, IIE2-3, 6?
Rocky twins	Cm-239	Plains Village and Historic	Large camp or settlement with potentially different habitation deposits may be preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
	Cm-246	Plains Village	Potentially preserved open camp in upland setting.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE, 3, 6?
Feigel Point	Cm-249	Plains Village	Large camp or village with potentially well preserved deposits.	IB1, IC4; IIA1-2?
Parade Ground	Cm-322	Plains Village or Historic	Well preserved late prehistoric or prehistoric camp.	IB1, IC4; IIA1-2?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Signficance	Recommendations
Cotton County				
Sanders	Ct-11	Plains Village	Large camp or village site with potentially preserved middens and other habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Austin	Ct-21	Plains Village	Potentially preserved hamlet or village; plowed only recently.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Custer County				
Little Deer	Cu-10[a]	Plains Village and Protohistoric ?	Large late prehistoric village with traces of habitation features, Southwest trade, and economic practices.	IC2; IIB, IIC2-3 IID2, IIE1-6.
Mouse I	Cu-25[b]	Woodland and Plains Village	Partially studied hamlet or village; still has preserved habitation features.	IB2, IC1-2; IIA2, IIB, IIC, IID3.
Heerwald	Cu-27	Plains Village	Partially preserved village with some preserved habitation features.	IB2, IC1&3; IIA1-2.
Mohawk	Cu-33	Plains Village	Hamlet or village with diverse, potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Cotter	Cu-37	Plains Village	Large, potentially preserved village along a secondary tributary to Washita River.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE1-3?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Custer County				
Simmons Ranch	Cu-38	Plains Village	Potentially preserved hamlet or village along secondary tributary to Washita River.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE1-3
Hodge	Cu-40[a]	Plains Village	Fairly well preserved hamlet with habitation features; nearby is former headquarters of Cheyenne-Arapaho Cattle Company.	IIB, IIC, IIE1-5.
McNeil	Cu-44	Woodland or Plains Village	Deeply buried camp or settlement; should yield well preserved remains as well as data on past environments.	IB1&3; IIA1-2?, IIB?, IIC3?, IIE1-6?
Hodge #2	Cu-59	Woodland or Plains Village and Historic	Traces of historic dugout near partially preserved hamlet that has trash pits houses, and possibly burials.	IA2, IB1-2, IC1&4; IIA1-2?
Cotton Silo	Cu-76	Plains Village	Partially preserved settlement with traces of houses and other features.	IA1, IB2, IC1, 3-4; IIA1-2?
Levee	Cu-77	Plains Village	Partially preserved hamlet or farmstead.	IB2, IC1,3-4; IIA1-2?
Wild Horse	Cu-88	Woodland or Plains Village	Partially preserved hamlet or village with habitation features and midden on upland setting.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Custer County				
Five Acre	Cu-91	Plains Village	Partially preserved village with house remains and traces of other habitation features.	IA1, IB2, IC1&3; IIA1-2?
Hodge #2	Cu-117	Plains Village	Village with intact deposits and potential for undisturbed features.	IB1; IIA1-2, IIB, IIE
Grady County				
Brown	Gd-1	Plains Village	Minimally tested large village that still has traces of at least 3 houses in addition to other features.	IB2, IC1&3; IIA1-2.
Scribner	Gd-2	Plains Village	Small farmstead with preserved habitation features and deposits.	IB2, IC1&4; IIA1-2?
Nunn	Gd-5	Plains Village	Potentially preserved farmstead or hamlet useful for studying communities.	IA1, IB1; IIA1-2?, IIB, IIC, IIE.
Fenimore	Gd-6	Plains Village	Traces of middens, trash pits, and houses; good prospect for studies of community structure, economies, and adaptive strategies.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Selzer	Gd-16	Woodland, Plains Village	Village or camp with features present.	IB1; IIA1-2, IIB, IIE

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Grady County				
Thad Smith	Gd-21[b]	Plains Village	Hamlet or village with preserved traces of pits, middens, houses, and burials.	IA1, IB1; IIA2?. IIB?, IIC?, IIE?
Sterr	Gd-26	Plains Village	Villages with intact deposits and structures and other features present.	IB1; IIA1-2, IIB, IIC, IID, IIE
	Gd-93			
	Gd-100			
Bud's	Gd-108			
Sparks	Gd-119			
Robertson	Gd-144			
Horn #2	Gd-79	Plains Village	Partially preserved hamlet on upland ridge; some habitation features may still be intact.	IB2, IC1&4.
Jewett	Gd-81[a]	Plains Village	Partially disturbed midden, refuse pits, and houses of a hamlet or village.	IB3; IIB, IIC, IIE.
Hutchinson	Gd-96	Archaic and Plains Village	Potentially stratified camp with buried intact deposits.	IB2, IC1&4; IIA1-2?
Jefferson County				
Lugamore Bluff	Jf-16	Plains Village	Large village with preserved habitation features.	IA1, IB1; IIA1-2?, IIB, IIC, IIE2-6.
Alsup	Jf-18	Plains Village	Fairly well preserved hamlet that may yield information useful for studying communities and adaptive practices.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Jefferson County				
Barrett	Jf-19	Plains Village	Hamlet or village of some four acres; preservation may be good.	IB1; IIA1-2?, IIB?, IIC?, IIE?
Gilcrest	Jf-20	Archaic and Plains Village	Large camp and possible village that may have preserved stratified deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Orchard	Jf-22	Plains Village	Potentially preserved prehistoric camp near Jf-1.	IA1, IB1; IIA1-2?,
Boat Holler	Jf-29	Plains Village	Camp or village with much debris and potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Owing Ferry	Jf-33	Plains Village	Large probable village that appears to be very well preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Ryan	Jf-45	Archaic and Plains Village	Camp and/or village with potentially different activity areas.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Kiowa County				
Devils County	Ki-1[a]	Plains Village and Historic	1830s Wichita camp visited by U.S. dragoons; also traces of prehistoric camp.	IIB, IIC2-3, IID?, IIE.

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Kiowa County				
Krigbaum	Ki-44	Plains Village	Camp with possibly intact deposits and features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Winters Cave	Ki-142	Plains Village	Partially preserved 3-4 ft. midden in a dry cave.	IIB, IIC3, IIE1-6.
Stephens County				
Central School	St-14	Plains Village	Large camp or settlement that may have intact habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Smith	St-20	Plains Village	Small hamlet or camp that could have intact habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Tillman County				
Lowry	Ti-1	Plains Village	Large village with apparent habitation features that are preserved.	IA1, IB1; IIA1-2? IIB?, IIC?, IIE?
Hamill I	Ti-5	Plains Village	Camp or hamlet with preserved deposits and features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Hamill II (Camp Augur)	Ti-6	Plains Village and Historic	Well preserved military camp and prehistoric village.	IA1, IB1; IIA1-2, IIB, IIC, IIE.
Hamill III & IV	Ti-7&8	Plains Village	Potentially preserved camps or hamlets with habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Tillman County				
Cottrell	Ti-10	Plains Village	Seemingly preserved large camp or village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Suttle Creek	Ti-30	Archaic ? and Plains Village	Possibly buried site with stratified refuse deposits.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Babcock	Ti-33	Plains Village and Historic	Possibly preserved camp or hamlet that may yield information on prehistoric occupation and assemblages as well as early historic native habitation.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Kelly	Ti-82	Plains Village	Seemingly preserved hamlet or village with habitation features likely intact.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Sand Point	Ti-83	Plains Village	Probable village with features potentially preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Washita County				
Bungardt (Boggy Creek)	Wa-1	Plains Village	Major village with thick midden and traces of many other habitation features.	IA, IB2, IC1, 3-4; IIA1-2?, IIB?, IIC?, IID?, IIE?
Duncan	Wa-2	Plains Village	Partially preserved large village; could yield information on activity areas, feature preservation, and settlement practices.	IA1, IB2, IC1&3; IIA1-2?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Washita County				
Hinz	Wa-4	Plains Village	Small hamlet or farmstead with preserved habitation features.	IA1, IB2, IC1&3; IIA1-2?
McLemore	Wa-5[a]	Plains Village	Hamlet or small village that has yielded notable information on site structure, assemblage composition, and people; still has many intact deposits.	IIB, IIC1&2?, IIE.
Cedar Creek	Wa-6[a]	Paleo-Indian, Archaic, and Plains Village	Short watershed with geological deposits containing 10,000 years record of environment and human use.	IIB, IIC1&2, IIE.
Bond	Wa-17	Plains Village	Small farmstead south of McLemore Site; may have preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Vandever	Wa-18	Woodland and/or Plains Village	Largely preserved major site with traces of middens, pits, and houses; may have two occupations.	IB2, IC1&4; IIA1-2?
Cowden	Wa-19	Plains Village	Hamlet with fair-good preservation of habitation features.	IB2, IC1&4.
Snyder	Wa-21	Plains Village	Potentially preserved hamlet or village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE.

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Washita County Hill	Wa-22	Plains Village	Partially preserved hamlet or village with features still intact.	IA1, IB2, IC1&4.
Carley	Wa-39	Plains Village	Farmstead or hamlet with potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Fleming	Wa-41	Plains Village	Hamlet or small village with potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Cobb Creek	Wa-45	Plains Village	Hamlet or village with potentially preserved habitation features.	IA1, IB1; IIA1-2?, IIB?, IIE3.
Boggy Creek	Wa-46	Plain Village	Hamlet or village with some preserved habitation features.	IA1, IB; IIA1-2?, IIB?, IIC?, IIE3.
Carley #2	Wa-48	Plains Village	Probably major village with habitation features.	IA1, IB2, IC1&4; IIA1-2?
	Wa-50	Plains Village	Potentially preserved hamlet or village.	IA1, IB2; IIA1-2? IIB?, IIC?, IIE?
Emerson	Wa-84	Plains Village	Potentially well preserved village.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Scraper	Wa-86	Plains Village	Partially unplowed village with habitation features.	IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-9. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Washita County				
Grossman	Wa-100	Archaic ? and Plains Village	Large site with evidence for different occupations; features may be preserved.	IA1, IB1, IIA1-2?, IIB?, IIC?, IIE?
Davis	Wa-130[a]	Plains Village	Uncultivated camp or village; features should be well preserved; within Cedar Creek District.	IB1; IIB, IIC?, IIE?
Duerksen	Wa-143	Plains Village	Hamlet or village with likely preserved features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

[a] Currently listed on or eligible for the National Register of Historic Places.

[b] Currently listed on the Oklahoma Landmarks Inventory.

house architecture, burial practice, and settlement and subsistence patterns along the major streams and the tributary valleys. For example, though the McLemore Site (34Wa-5) was extensively excavated, we don't know how many houses are present, whether or not they were all inhabited at one time, or whether or not satellite villages, farmsteads, or camps are represented by the sites recorded in the Cobb Creek watershed. Comparable information is also lacking for the Brown Site (34Gd-1), a major village in the Washita River Valley. Moerover, because all excavated sites are in the Washita River Basin, we don't know if apparent villages and camps along the Canadian, the North Canadian, and Red rivers were inhabited by the same people or by different prehistoric farmers.

Future Research

Because the recorded Plains Village sites include examples from diverse physiographic/environmental settings throughout Management Region 4, they comprise locations that may yield information needed to examine and explain local settlement practices. In addition, the numerous villages identified for this study unit offer excellent opportunities to examine social cohesion and community structure. It has not been established whether or not status differences existed among Plains Villagers of the Washita River Phase. Some burials appear to contain more exotic grave goods than others. Does this distinction reflect status differences in the living population? It is also apparent that a high population density within the region would have required more complex social and political organization. How were Plains Village societies organized? These, and other questions pertaining to trade with distant groups and intensity of agriculture pursuits can only be resolved with additional research. Finally, once some of these sites are more accurately dated, perhaps they will provide clues to changing settlement practices caused by climatic fluctuations during these 500 years. Is the dramatic decrease in

the number of villages along the Washita River after A.D. 1500 a function of a natural and climatic factors or hostilities with newcomers to the area? Other notable questions posed for future research in Region 4 are presented in Table IV-10.

Factors Affecting Management Region 4's Plains Village Sites

As noted earlier, the majority of Plains Village settlements are situated on terraces and floodplains of the Washita, North Canadian and South Canadian rivers and their principal tributaries. These settings were probably selected by prehistoric farmers due to the high fertility of the local soils. Today, these areas are prime locations for intensive agricultural activity which comprises the most significant factor affecting villages, hamlets, and farmsteads of this study unit.

While this region has experienced intensive farming for almost 100 years, during the late 1800s and early 1900s farming was conducted with horse-or mule-drawn plows and soils were rarely plowed deeper than 3 to 4 inches. These plowing methods seldom resulted in significant damage to Plains Village settlements. However, since the 1930s, with the development of powerful tractors, one-ways and subsoil tillers can easily plow to depths of 24 inches or more. This equipment, used in erosion control and farming practices such as chisel plowing, contour terracing, and land leveling are annually destroying the integrity of many Plains Village sites as house patterns, remains from trash pits, and human burials are badly mixed by such actions. Such damage is most evident in Custer, Washita, Caddo, and Grady counties where virtually every recorded Plains Village farming community has been at least partially terraced or leveled. Moreover, specific plans for increased terracing, levelling, and construction or erosion-control devices as part of the SCS-proposed Great Plains Conservation Program will undoubtedly result in the damage and destruction of many additional Plains Village sites.

Table IV-10 Research Questions About the Plains Village Period, Management Region #4.

MORPHOLOGICAL RESEARCH	CULTURE HISTORY RESEARCH	BEHAVIORAL RESEARCH	ECOLOGICAL RESEARCH
Although a typology has long been used to classify tools from sites of this period, is this typology well founded on empirical studies of manufacture, use, maintenance, and discard effects? Will restudies of already recovered artifacts enhance understanding relationships between tools and tasks? Selected tools and their attributes are heavily used to demonstrate ties through time and space; are there better measures for social and cultural similarities? Will findings from studying tool kits and assemblages from different localities support recognizing local or chronological variations in model behavior for pottery making and knapping? Are there resource preferences that characterize specific localities and/or particular times? Are there tools and/or trash that will help discern the character, extent, and development of trade networks during this period? Do studies of technologies for making tool kits and assemblages support the contention that the *Washita River Phase* developed from the earlier *Custer Phase?* Where are the sources of exotic artifacts and materials recovered from sites in this region?	Are there other cultural units than the *Custer Phase, Washita River Phase, Henrietta Focus (phase ?), Edwards Complex, and Wheeler Complex* that ought to be recognized in this region's cultural sequence? Can evolutionary ties be reasonable documented among the *Custer Phase, Washita River Phase, Henrietta Focus, Edwards Complex, and Wheeler Complex?* Did this region's Prehistoric Village cultures develop from local Woodland Period ones? If so, what evidence documents such development? Is the *Washita River Phase* really ancestral to the *Great Bend Aspect* in Kansas? What historically recorded groups descended from the Prehistoric Village societies known as the *Washita River Phase, Henrietta Focus, Edwards Complex,* and *Wheeler Complex?* Does the *Edwards Complex* have its origins in the *Washita River Phase?* Will more radiocarbon dates help gain understanding of the internal dynamics of development for the region's several recognized cultures?	Prehistoric villages of this region are interpreted as residences of egalitarian farming-hunting-gathering societies; does the archeological evidence really support such an interpretation? What do site settings, their layouts, and their contents tell us about the composition and organization (social, political, and/or economic) of Prehistoric Village societies? Are there regularities and variations in site settings and structure that are explainable in terms of social and/or political rather than economic organizations? What is the structure of Prehistoric Village communities? Do these change through time and space? How? Why? How are tribes identifiable in the archeological record? Are there clues that widespread communities were linked in any formal (social or political) manner? How important was trade to the persistence and well being of Prehistoric Village communities? Is there evidence for immigration to or abandonment of this region during this period by specific Prehistoric Village groups?	Did climatic fluctuations play a prominent role in Prehistoric Village habitation of this region? What were the local effects of climatic fluctuations throughout this region? What farming practices enabled these prehistoric horticulturalists to successfully inhabit certain localities for several hundred years. Are settlement practices similar from locality to locality? If not, why? Prehistoric villagers in this region are usually depicted as dependent on farming, but just how important was farming relative to the products from hunting and gathering? Is the expansion of Plains Villagers in this region linked to the development of improved varieties of corn? Bison were clearly important to this region's Plains Villagers, but how were bison hunted? Is there evidence that more recent Plains Village sites result from less sedentary habitations? Are these societies becoming more nomadic? If so, why?

Farming practices have also contributed to site destruction through increased vandalism and pot hunting activity. Once remains from Plains Village settlements are churned to the surface by plowing or are exposed during land leveling, they easily identify the site's location to individuals who may dig up the remains for their personal collections or for sale on the antiquities market. There are also cases where erosion has exposed Plains Village occupations which were subsequently destroyed by careless and untrained relic collectors or vandals. Deep potholes in rockshelters containing Plains Village occupations in the canyons of Caddo and Canadian counties bear witness to the widespread destruction of archeological sites by these individuals. It is difficult to estimate or record the number of Plains Village sites which have been badly damaged or destroyed by vandalism. However, it is believed that people digging for their private collections, digging for saleable artifacts, or treasure hunters looking for lost hoards of silver and gold, are probably the second leading cause of site destruction in this study unit.

The prevalence of Plains Village settlements in Management Region 4 has led to a variety of other factors affecting sites of this period. For example, as noted earlier in discussions of Management Region 4, oil and gas drilling since the late 1970s has led to dramatic increases in activity in the Anadarko Basin. Many wells have been drilled in upland settings where they have disturbed hunting and gathering camps, workshops, or specialized activity sites related to this period. There are also wells being drilled in floodplain locations. Fortunately, many drilling platforms, sludge pits, and access road areas are surveyed by professional archaeologists due to current federal rules and regulations. These surveys have resulted in the identification of a number of Plains Village sites which were preserved by moving construction activities off the site. At least one Washita River Phase village (34Gd-140) in Grady County was discovered during an oil well pad survey and preserved through

avoidance. Unfortunately, there are oil and gas wells being drilled on lands with private surface and mineral rights which are potentially destroying archeological sites (including Plains Village occupations) without examination of these areas for cultural resources. Wells drilled on the perimeter of canyons in Canadian and Caddo counties have also resulted in rockshelters and buried deposits containing Plains Village materials being badly damaged by erosion caused by oil companies stripping away secondary cover which inhibits run-off.

Another major factor influencing the preservation of Plains Village sites has been the construction of various federally funded water projects in the region. In an effort to control erosion and retard downstream flooding on the Washita and Red rivers, the Soil Conservation Service designed 43 watersheds which currently contain around 540 SCS-built impoundments. Many of these impoundments were surveyed by archeologists from the Oklahoma Conservation Commission. Their efforts led to the identification and study of a number of Plains Village camps and/or hamlets. Two such sites (34Cd-257) and (34Cd-258), discovered during a survey of the Delaware Canyon project, were more thoroughly excavated and reported on by archeologists from North Texas State University. Construction of 150 additional impoundments in the area will probably result in adverse effects on an unknown number of previously unrecorded camps, hamlets, and villages of this study unit. Besides SCS floodwater retarding structures, other federal agencies have constructed eight major reservoirs within or adjacent to Management Region 4. Most of these now-existing lakes were examined for archeological sites although none of the sites identified were thoroughly excavated. Two of these reservoirs, Foss and Custer County and Ft. Cobb in Caddo County, contained large numbers of villages, hamlets, and camps thought to date to the Plains Village Period. Most of these sites were lost through inundation while others are being rapidly destroyed by shoreline

erosion. It is also anticipated that additional Plains Village occupations will be adversely affected by the construction of five new reservoirs (Snyder, Verde, Cookietown, Weatherford, and Hydro) and of 500 miles of water conveyance system being developed for water needs in western Oklahoma.

Finally, Plains Village sites are being increasingly threatened with destruction by urban growth and development. While Management Region 4 experienced slow growth in the period from 1900 through the mid-1970s, since that time many of the counties in the region (e.g., Grady, Caddo, Washita, Comanche, Canadian) have experienced population growth in excess of 10%. Most of this growth has occurred around cities such as Mustang (36%), Yukon (64%), Chickasha (23%), and Lawton (23%) and has led to increased demands for services such as improved roads, new water and sewer systems, and especially housing additions. Some of the most extensive urban development has occurred along I-40 west of Oklahoma City in Canadian County and between Chickasha and Lawton in Grady and Comanche counties. Where these developments take place near permanent streams or rivers (in the case of Chickasha), it is likely that Plains Village sites will be destroyed or damaged. Most of the housing developments involve private financing and sites are reported only after they have been badly damaged or destroyed. Clearly, better rapport is needed with development authorities in preserving villages in these settings. We currently have little information on the number of Plains Village sites being being damaged or destroyed by construction activities associated with urban development.

Treatment of Management Region 4's Plains Village Sites

The Plains Village Periods is perhaps the best understood of the study units discussed here. However, despite the large number of villages, hamlets, camps, and workshops recorded, our comprehension of settlement patterning and subsistence practices is limited. The density of Plains Village sites which

occur in a diversity of physiographic settings/environmental zones makes it unlikely that any portion of Management Region 4 can be excluded when evaluating potential impacts to Plains Village sites by various land alteration practices. It can be stated however, that the terraces and floodplains of the Washita, Red North Canadian, and Canadian rivers and their principal tributaries are particularly sensitive areas, because there is much greater likelihood that such areas will contain Washita River Phase villages or hamlets.

Future research planned for the Plains Village study unit focuses on subsistence practices, identifying the social organization used by these prehistoric farmers, and how this adaptive pattern developed from the preceeding Woodland Period. We have identified a number of villages, hamlets, and camps which contain tool assemblages, faunal and floral remains and a variety of other materials bearing on these research questions. Other sites, presently unrecorded, may also provide new insights on these problems. Sites containing intact deposits or which maintain a high degree of depositional integrity are essential for resolving these questions and should be preserved for future research.

It is apparent that the Plains Village study unit is seriously threatened by various factors such as farming practices, vandalism, energy related projects, and urban development. Furthermore, natural agents such as erosion are slowly destroying the contextual relationships of many of the villages and hamlets. For these reasons, it is imperative that a long term program of research, preservation management and education be initiated in Management Region 4.

Protohistoric Period (A.D. 1500 to 1800)

Characteristics

Beginning around the fifteenth or early sixteenth centuries, notable

changes took place in the structure of societies on the Southern Plains and in the Mixed Grass Prairie. These changes were brought about possibly by droughts, or perhaps as a result of marauding newcomers. Some groups maintained a farming oriented pattern similar to that of the Village Farming Period, whereas others became foragers linked strongly with a prairie hunting and gathering economy. Later, after contact with Europeans, a number of tribes adopted the horse and became totally focused on bison hunting. These groups have been historically linked with tribes such as the Kiowa, Kiowa-Apache, Pawnee, and a number of subgroups of the Wichita, including the Taovaya and Tawakoni.

Much of our information on this period comes from accounts of the early Spanish expeditions through the Southern Plains and from studies of historic Plains Indians conducted by anthropologists in the late nineteenth and early twentieth centuries. Apparently, the concentration of large numbers of villages and hamlets along major streams and rivers gave way to a more dispersed, migratory pattern in many areas. Although villages still occur, their numbers were dramatically reduced when compared with the preceding Village Farming study unit. There is also historic evidence for seasonal movement between permanent villages occupied during the summer and less permanent Fall-Winter camps related to bison hunting. As groups become more migratory there was concommitant shifts to a more transportable living structure-the tipi. Evidence exists for the continued presence of temporary hunting camps, bison kill sites and processing stations, and quarry/workshops.

The social system of these people, in general, was egalitarian with little support of a more complex political structure. Ritual appears to continue as an important aspect of the cultural pattern. Despite the demise of the expansive Village Farming pattern, interregional trade is widespread and in fact intensifies during the Protohistoric Period. Early Spanish accounts

document an extensive trade system operating between Puebloan groups in the Southwest and various groups on the Plains.

Existing Data

Information on Protohistoric sites is often difficult to identify because many of these sites are imperceptably distinguishable from earlier Plains Village occupations. In fact, some sites may contain evidence to document discontinuous settlement continuity from the 1300s through the 1700s. A number of sites in Management Region 4 bear affinities to the Protohistoric Period Unlike the pattern in Region 1 where the occurrence of tipi rings are suggestive of a later, more transitory pattern, probable Protohistoric settlements in the Mixed Grass Prairie region are primarily villages and hunting camps. The material cultural and physical appearance of remains from these sites resemble those of historic Wichita tribes. One 18th century Wichita village and trading center, the Longest Site, has been found and partially excavated in Jefferson County. The site contains vestiges of circular grass-thatched houses, refuse pits, midden mounds, and a circular fortification situated on a fertile terrace of the Red River. The contents and setting of the Longest Site support the conclusion that it was the Taovayas village attacked by Parrilla's Spanish troops in 1759.

Region 4 Plains Villagers were probably ancestors to one or more Protohistoric groups of Wichita tribal affiliation, but a few sites have also yielded pottery, chipped stone, and bone tools that are dissimilar from those usually attributed to the Wichita. In particular, the Little Deer Site (34Cu-10), the Parade Ground Site (34Cm-322), the Scott Site (34Cn-2), and 34Cd-218 in Caddo County have yielded black sandy pottery, numerous triangular arrowpoints, and many stone tools shipped from Kay County chert as well as obsidian that are attributed to A.D. 1500-1700 occupants of central and western Oklahoma. Wichita people may have been responsible for this assemblage, but

the Jumano, the Kiowa-Apache, the Kiowa, the Comanche, and even resettled Puebloans are known to have inhabited the Southern Plains during the tumultuous 1600s and 1700s. Consequently, these people's ancestry may also be represented in the archeological remains of the region. Among the Protohistoric sites identified for Management Region 4, four are currently listed on the National Register of Historic Places: the Duncan-Wilson Shelter (34Cd-1), Little Deer (34Cu-10), Longest (34Jf-1), and Devils Canyon (34Ki-1). A list of these sites and others meriting further study and preservation for this study unit can be found in Table IV-11.

Gaps in our Knowledge

Protohistoric sites are a consequence of relatively recent occupations, and historic accounts can be used to study and identify their remains and lifestyles. However, despite these positive factors, there are huge gaps in our knowledge of this study unit. Apparently, the village farming pattern continued into Protohistoric times, although at a diminished intensity; there are 20 Plains Village settlements recorded for every Protohistoric village. It is possible that the reduced number of sites in the Protohistoric Period is a result of failures to distinguish Protohistoric assemblages from Plains Village remains. Obviously, this dilemma cannot be resolved without considerable efforts being expended on surveys and excavations. Currently, we have extremely limited information on settlement distributions, the range of site types, and basic subsistence practices. Protohistoric villages have been recorded for the floodplain-terrace zones of the major rivers and a few camps have been found in upland settings. We cannot even establish the limits of occupation during the period until further studies are conducted. It also has yet to be determined that sites such as Little Deer and Scott are of the same cultural pattern as the Longest Site. In summary, the gaps in our knowledge of Protohistoric people's lifeways considerably outweigh the existing information.

Table IV-11. Protohistoric Sites Meriting Research and Preservation in Management Region 4

	Site number	Cultural affiliation	Significance	Recommendations
Caddo County				
Wilson Springs	Cd-7	Plains Village and Protohistoric	Open camp and possible settlement that may have preserved habitation features.	IA1, IB1, IC3; IIA1-2?
Duncan-Wilson Shelter	Cd-11[a]	Woodland and Plains Village, and Protohistoric.	Previously excavated and dated shelter with stratified midden.	IIB, IIC, IID1, IIE3-4
Canadian County				
Scott	Cn-2	Protohistoric	Large settlement with pretially preserved remains of houses and other habitation features.	IB1, IC4; IIA1-2?
Comanche County				
Parade Ground	Cm-322	Plains Village or Protohistoric	Well preserved late prehistoric or protohistoric camp.	IB1, IC4; IIA1-2?
Custer County				
Little Deer	Cu-10[a]	Plains Village and Protohistoric	Large late prehistoric village with traces of habitation features, Southwest trade, and economic practices.	IC2; IIB, IIC2-3, IID2, IIE1-6.

Table IV-11. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Jefferson County				
Longest ("Spanish Fort")	Jf-1[b]	Protohistoric	Partially excavated village and fortified area inhabited by Wichita in mid-1700s; attacked by Parilla expedition in 1759.	IIA2, IIB, IIC2, IID3.
Lugamore Bluff	Jf-16	Protohistoric	Large village with preserved habitation features.	IA1, IB1; IIA1-2?, IIB, IIC, IIE2-6.
Alsup	Jf-18	Plains Village, Protohistoric	Fairly well preserved hamlet that may yield information useful for studying communities and adaptive practices.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Kiowa County				
Devils Canyon	Ki-1[c]	Plains Village, Protohistoric, and Historic	1830s Wichita camp visited by U.S. dragoons; also traces of prehistoric camp.	IIB, IIC2-3, IID?, IIE.
	Ki-38	Plains Village, Protohistoric	Fairly well preserved camp that may yield information on Protohistoric settlement/subsistence and trade with southwestern groups.	IC3-4, IIE2,5.
Tillman County				
Babcock	Ti-33	Plains Village, Protohistoric	Possibly preserved camp or hamlet that may yield information on prehistoric occupation and assemblage as well as early historic native habitation.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

Table IV-11. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Tillman County				
Sand Point	Ti-83	Plains Village, Protohistoric	Probable village with features potentially preserved.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Washita County				
Duncan	Wa-2	Plains Village, Protohistoric	Partially preserved large village; could yield information on activity areas, feature preservation, and settlement practices.	IA, IB2, IC1&3; IIA1-?
Franklin	Wa-3	Plains Village, Protohistoric	Partially preserved village; may yield information on settlement structure, activity areas, and trade with southwestern groups.	IA1, IB2, IC1, 3, 4, IIE1-5.

[a] Curently listed on or eligible for the National Register of Historic Places.

[b] Currently listed on Oklahoma Landmark Inventory.

Future Research

As in Management Region 1, sites of the Protohistoric study unit hold great potential for answering a variety of complex and critical questions concerning cultural and environmental changes in the Mixed Grass Prairie region. Evidence from climatological and palynological studies point to a significant shift in annual precipitation with decreased and more sporadic patterns. Did these changes lead village farmers in Region 4 to abandon the fertile floodplain settings of the Washita River Valley? Or perhaps, were there cultural factors which account for significant reductions in settlement density between the Plains Village and Protohistoric periods? There are also important research questions to be examined regarding the social and cultural systems of these Protohistoric people. Can we document the flow of exotic, non-local goods into the region? And, are there significant differences in the social systems of Protohistoric groups compared with the preceeding Plains Village societies? These and other questions related to the development of historic tribes of the Southern Plains have been considered in future research efforts (Table IV-12).

Factors Affecting Region 4 Protohistoric Sites

The small number of recorded Protohistoric sites makes it difficult to identify factors adversely affecting these archeological resources. However, it is likely that activities disturbing and damaging Plains Village occupations have or will affect the Protohistoric study unit in similar ways.

Modern farming methods and vandalism are probably the two factors most seriously threatening Region 4 Protohistoric sites although oil and gas production, the development of water supply systems, and urban growth are also likely to disturb sites which exist in the area (both known and unrecorded).

Table IV-12 Research Questions About the Protohistoric Period, Management Region 4.

MORPHOLOGICAL RESEARCH	CULTURE HISTORY RESEARCH	BEHAVIORAL RESEARCH	ECOLOGICAL RESEARCH
Can variations in ceramics, arrowpoints, and other artifact styles lead to a delineation between Plains Village and Protohistoric societies? Can assemblages be associated with specific tribal groups? What types of European trade goods are found on Protohistoric sites?	Presumably, societies such as the Comanche and Plains Apache arrived here in the Plains Village Period. Can these people be identified at Protohistoric Period sites? What is the degree of continuity between the preceeding Plains Village Period and the groups of the Protohistoric Period?	Ethnohistoric accounts document a strong trade network existing between Southern Plains tribes and southwestern Puebloan groups. What were the mechanisms of this trade network and how did it affect groups involved in it? How were European trade goods and European customs incorporated into Southern Plains cultural patterns in the Protohistoric Period? Did possible changes to a more transitory economy alter the social systems of Protohistoric groups? Can pictographs and petroglyphs in the Kenton Caves in Cimarron County, depicting horses be associated with Protohistoric Period occupations.	Were there climatic changes that account for the dramatic changes that take place in the region between the Plains Village and Protohistoric periods? How important was farming to Protohistoric groups on the Southern Plains? Southern Plains groups traded bison meat and hides to Puebolan communities. What evidence exists for bison kill sites dating to the Protohistoric Period?

Agricultural practices have probably had considerable effect on Region 4 Protohistoric sites. Many of the villages are situated on fertile floodplain soils, in areas that have been continually farmed during the past 100 years. Prior to the 1930s, draft animals were used in plowing and only the upper 3" to 4" of soil and damage to archeological sites was minimal. However, with the advent of powerful tractors, mechanized plowing now often churns soils to depths of 24 inches or more. Practices such as chisel plowing seriously damage Protohistoric sites by cutting through house floors, churning up trash pits, and generally mixing remains left behind by these people.

Protohistoric assemblages have also suffered from farmers attempts to control soil erosion. Agricultural techniques such as land leveling and contour terracing designed to repair and stabilize erosional surfaces have damaged both the Little Deer Site in Custer County and the Scott Site in Canadian County. There are also cases where farmers' failures to deal with erosion have resulted in slow deterioration in the condition of Protohistoric camps and villages. For example, Devils Canyon (34Ki-1), a National Register property in Kiowa County is seriously threatened with destruction from continuing erosional activity. These and other recorded cases attest to agricultural practices as well as the consequences of large scale farming threatening the preservation of the region's Protohistoric study unit.

Vandalism, while not as pervasive a problem as agricultural practices, is a major factor affecting Region 4 Protohistoric sites. Because some Protohistoric settlements are known to contain early European artifacts (e.g, Franch trade beads, gun flints, gun parts, etc.), professional collectors sometimes locate villages and indiscriminately dig on the site for a few saleable artifacts. Other individuals, searching for the hoards of gold and silver reported in legends, also may dig on these sites for "treasure". There are also potential impacts to these sites from curious sightseers, oil and gas

field workers, and recreationalists. Little information currently exists on specific sites which have been damaged by such actions. However, there are a number of Protohistoric sites in Management Region 1 which have documented instances of vandalism.

In addition to vandalism and agricultural activity, federally funded projects related to floodwater control and water supply have had considerable impact on Protohistoric resources. To date, 43 watersheds, containing approximately 540 impoundments have been built by the Soil Conservation Service. Although many of these water retarding structures were examined for cultural resources by archeologists from the Oklahoma Conservation Commission, there are few cases of Protohistoric camps or villages being affected. However, an additional 150 (ca.) impoundments are planned and it is quite likely that sites of this study unit will be affected by their construction. Besides the numerous SCS impoundments, eight major reservoirs have been built within Management Region 4 or on its border. Archeological surveys were conducted at the Altus, Ft. Cobb, Foss, Mountain Park, and Waurika reservoirs, but few intensive testing or major excavation programs were carried out. Based on the survey information, we know that some sites with possible Protohistoric components were inundated. We have limited information on whether any of the numerous sites being affected by shoreline erosion date to the Protohistoric Period or contain materials of this study unit. Five additional reservoirs (Snyder, Verden, Cookietown, Weatherford, and Hydro) are planned for the region. These lakes, planned by the Corps of Engineers, Bureau of Reclamation, and the state of Oklahoma, and construction of a 500 mile long water conveyance system will undoubtedly affect an undetermined number of Protohistoric occupations.

Oil and gas drilling activities, particularly in the Anadarko Basin, may affect sites of the Protohistoric study unit. Because sites of this period

appear to be less numerous than those of the preceding Plains Village Period, the probability of encountering Protohistoric remains during construction of well pads, sludge pits, and access roads is lessened. To date, surveys by professional archeologists of oil and/or gas wells drilled on federal lands or on lands under federal jurisdiction have not resulted in the identification of camps or villages belonging to these people. The greatest threat to sites of this period occurs when drilling activities are conducted on floodplains and ridges or terraces adjacent to major streams or rivers. Those lands requiring surveys by professional archeologists may result in identification of the site and its preservation. However, there are lands which have private surface and mineral rights. No requirements exist for archeological evaluation and there is the potential for destruction of cultural resources including sites belonging to the Protohistoric Period.

Gas pipelines also comprise a potential threat to preservation of Management Region 4 Protohistoric sites. Although we have not received reports of pipelines damaging any camps or villages, proposed pipeline corridors traversing Region 4 are increasing in number and it is only a matter of time before sites of this study unit are encountered. We have documented cases of pipeline construction damaging Plains Village sites in the region. Due to the correspondence in settlement patterns during the two periods, it is likely that Protohistoric sites will be disturbed in the future.

Finally, urban development in the region may lead to the destruction of Protohistoric sites. So few settlements have been recorded for this period that we cannot fully evaluate the potential for disturbance. However, we do have evidence to document disturbance of a Protohistoric site as a result of construction within the town of Erin Springs near Garvin County's border with Grady County.

Urban expansion of cities and towns along major river systems (the Red, Washita, North Canadian, and South Canadian rivers) are likely to disturb Protohistoric sites which are currently unrecorded. Population increases along these rivers in communities such as Chickasha (27%), Yukon (64%), and Mustang (36%) have prompted development of housing additions, water and sewer systems, and new roads in Grady, Canadian and adjacent counties in the region. These development projects may potentially disturb an unknown number of sites dating to the Protohistoric Period.

Treatment of Region 4 Protohistoric Sites

Treatment and recommendations for proper management of the Protohistoric study unit must consider the absence of substantive information as the most critical factor influencing decision-making. Currently, our knowledge of Protohistoric settlement/subsistence patterning is extremely limited. Attempts to identify Protohistoric occupations are compounded by difficulties in distinguishing these later remains from preceding Plains Village assemblages. Because of these constraints, we must exercise caution in evaluating potential impacts to a part of the resource base that has not been adequately documented. For example, only a few Protohistoric sites have been documented throughout the region. Needless to say, this scarcity of settlements probably reflects biases in research interests and assemblage identification methodologies rather than any real absence of Protohistoric sites. All physiographic settings/environmental-zones must be considered potentially sensitive for the presence of these people's camps and villages. The limited information we have assembled document floodplains and terraces of major streams and river systems as high probability areas for the presence of such sites. This represents a continuation of the settlement/subsistence pattern emphasized by Plains Villagers. Until more baseline data is available, these areas must be considered as the primary target areas for identifying Protohistoric villages.

As discussed in the section dealing with future research, the Protohistoric study unit has tremendous potential for aiding in our understanding historic tribal identities and the expansive trade networks that existed from approximately 1500 to 1700. Unfortunately, due to the small number of recorded sites, various factors affecting this study unit are a serious threat to our obtaining future research goals. We cannot risk the potential destruction of Protohistoric settlements without every alternative being fully explored. In summary, projects involving land alteration should take full consideration of potential impacts to Protohistoric resources. If Protohistoric sites are encountered, the most desirable strategy is preservation of the site.

Undefined and Historic Affiliations

In reviewing the archeological site files maintained by the Survey, a number of sites were discovered which contain deposits which are important for a variety of reasons. However, the cultural identity of these resources has not been established. Because of this lack of cultural affiliation, it was not feasible to attempt discussions of research potential. The organizational framework of this report has focused on the study unit or cultural period. Here, cultural periods cannot be defined, nor can other dimensions such as gaps in our knowledge or factors influencing these sites. We have also included historic sites in this section due to our staff's limited capabilities in treating and managing historic archeological resources. Thes sites of uncertain cultural affiliation and the historic period are listed in Table IV-13. These resources are potentially as important as those referred to by study unit, but we currently lack information or the professional expertise to provide more detailed accounting.

Table IV-13. Important Sites of Uncertain and Historic Period Cultural Affiliation
Management Region 4

	Site number	Cultural affiliation	Significance	Recommendations
Headrick	Cd-80	Historic	Potential location of early trading post.	IB1, IIA1-2, IIB, IIE.
Cedar Creek	Cd-108	uncertain	One of several camps and knapping stations used during the past 10,000 years in the watershed.	IIC1-2, IIE1, 2-3.
Dead Woman Creek	Cd-214	uncertain	Potentially uneroded, unfarmed open camp.	IA1, IB1; IIA1-2, IIB?, IIC, IIE?
White Canyon #28	Cd-221	uncertain	Potentially preserved camp and/or workshop.	IA1, IB1, IC4?; IIA1-2?
Horn	Cd-273[a]	uncertain	Partially eroded camp relevant to documenting 10,000 years of human activities in Cedar Creek watershed.	IA1, IB1, IC4?
Canadian County House	Cn-1	uncertain	Potential village with remains of habitation features.	IA1, IB1; IIA1-2, IIB?, IIC?, IIE?
	Cn-20	Historic	Possible Wichita village of 1895.	IA1, IB1; IIA1?, IIB?, IIC?, IIE?
	Cn-34	Historic	Probable cemetery for Cheyenne-Arapaho in late 1800s.	IB1; IIA1-2?

Table IV-13. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendation
Comanche County	Cm-25	uncertain	Burned rock and bison bone buried by 6.5 ft. of sediment.	IB1; IIA1-2?, IIE?
Apache Mission	Cm-39	Historic	1895-1913 Dutch Reformed mission for Naiches band of Apaches; possible cemetery.	IIA1.
Archery Range	Cm-41	uncertain	Potentially preserved camp or hamlet.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
	Cm-42	uncertain	Large open site with traces of rock-lined hearths.	IA1, IB1; IIA1-2?, IIB., IIC?, IIE?
	Cm-66	uncertain	Camp or village covered by 3-4 ft. of alluvium.	IB1; IIA1-2?, IIB?, IIC3?, IIE?
	Cm-118	uncertain	Buried soil surface with hearths and habitation debris.	IB1; IIA1-2?, IIC3?, IIE?
Mathewson Trading Post	Cm-132[b]	Historic	Former site of William Mathewson trading post, inhabited 1869-1874.	IIA1, IID1?
Allison	Cm-141	uncertain	Large open site that may contain remains of tipi-rings and/or other habitation features.	IA1, IB1; IIA1-2?, IIC?, IIE1-6?
Cupps II	Cm-183	uncertain	Buried open camp with habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE3-5?
Welsh Hill Shelter	Cm-203	uncertain	Rock shelter with dry, potentially stratified habitation deposits.	IA1, IB1, IC4?, IIA1-2?

Table IV-13. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendations
Red Store	Cm-207	Historic	Traces of 1869-1911 building of store and school that were important to locality.	IA1, IB1; IIA1-2?, IIC1-3?, IID1, IIE1-2,5
Ft. Sill Indian Agency	Cm-232[b]	Historic	Former location of Kiowa-Comanche agency in 1800s.	IIA2.
	Cm-235	uncertain	Open camp with potentially preserved deposits.	IB1; IIA1-2?, IIB, IIC?, IIE?
	Cm-240	uncertain	Open camp or settlement with buried midden that may be preserved.	IA1, IB1, IC4?; IIA1-2?
	Cm-243	Historic	Possible site of Apache POW camp in late 1800s.	IA1-2, IB1?; IIA1-2?
Ft. Sill Indian Agency Village	Cm-274[b]	Historic	Former location of houses and special buildings used between 1869 and early 1900s.	IA1-2, IB1?; IIA2?, IIC?, IID?, IIE?
	Cm-295	uncertain	Potentially preserved camp or small settlement.	IA1, IB1; IIA1-2?, IIC?, IIE?
Post Oak Creek Dugout	Cm-319	Historic	Potentially preserved dugout or late 1800s or early 1900s.	IA1, IB1; IIA1-2?, IIC?, IIE?

Table IV-13. - (Continued)

	Site number	Cultural Affiliation	Significance	Recommendations
Ft. Sill	Cm-326 Cm-327 Cm-328 Cm-330 Cm-331 Cm-332 Cm-333 Cm-334	Historic	Various buildings and sites of buildings that were important during 1800s operation of this fort.	IIA1-2?, IIC, IID1-2?, IIE6.
Cotton County				
Sorge	Ct-22	uncertain	Deeply buried midden with bone and shell preserved.	IA1, IB1-2?, IC1&4? IIA1-2?
	Ct-27	Historic	Location of Warren's Trading Post occupied during the 1830s and 1840s.	IB1; IIA1-2, IIB, IID, IIE.
Jefferson County				
Irving	Jf-52	uncertain	Camp with potential for for stratified deposits.	IB1-2, IC; IIB, IIE
Rainy Mountain	Ki-16	Historic	1867-1885 ration distribution point for Kiowa and Kiowa-Apache.	IIA1, IIC?, IIE.
Soldier Spring Battlefield	Ki-20	Historic	Location of 1868 battle between Kiowas, Comanches, and 3rd U.S. Cavalry.	IA, IB1; IIA1-2, IIB, IID, IIE.
Soldier Spring	Ki-51	uncertain and Historic	Historically important spring with nearby camp remains and petroglyphs.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?
Camp Radziminski	Ki-52	Historic	Well preserved military camp of 1870s.	IIA1-2, IIB, IIC, IID?, IIE.
Camelback Mtn.	Ki-53	uncertain	Noted petroglyph site	IIA1, IIC, IID2?, IIE.

Table IV-13. - (Continued)

	Site number	Cultural affiliation	Significance	Recommendation
Rainy Mt. School	Ki-69	Historic	Well preserved remains of historic Indian school.	IA1-2; IIA1-2, IIC, IID1?, IIE.
Stephens County				
Funk	St-34	uncertain	Potentially preserved camp with habitation features.	IA1, IB1; IIA1-2?, IIB?, IIC?, IIE?

[a] Currently listed on or eligible for the National Register of Historic Places.

[b] Currently listed on the Oklahoma Landmarks Inventory.

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