The James River Study Unit

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Description of the James River Study Unit

The James River Study Unit (JRSU) covers 6,554 mi². The James River drains into the Missouri River and has its headwaters along the Missouri Escarpment in Wells County, North Dakota. Figures 7.1 and 7.1A outline the area and illustrate several principal tributaries. All or portions of Barnes, Dickey, Eddy, Foster, Kidder, LaMoure, Logan, McIntosh, Sargent, Sheridan, Stutsman, and Wells counties are within the JRSU. Table 7.1 lists townships in the JRSU. Much of the information presented here was compiled from archaeological investigations conducted for the Bureau of Reclamation by the University of North Dakota (Gregg 1987; Gregg et al. 1985, 1986, 1987; Jackson 2001; Toom 2003, 2007, 2008, 2014; Toom and Jackson 2003).

Physiography

The JRSU is in the Drift Prairie physiographic region. The surface features of the Drift Prairie resulted from the retreat of the glacial ice mass with occasional halts and minor re-advances (Winters 1963:47). Uplands, valley wall side slopes, valley wall foot slopes, alluvial fans, river terraces, flood plains, and lake plains include the different landforms present in the Study Unit (SU). The most common features in the uplands are ground moraines, end moraines, and valley trains.

The Wisconsinan, Laurentide continental glacier was the last in a series of Pleistocene glaciers to cover the area. There was an advance around 20,000 BC, a recession about 12,000 BC, and the last advance around 9,000 BC. The ice mass reached as far south as the South Dakota-Nebraska border during the last advance (Flint 1955:Figure 27; Winters 1963). When the area was free of glacial ice, it was left with as much as 183 meters (600 feet) of glacial till covering the Pierre shale bedrock (Gregg et al. 1987:7).

Glacial lakes formed adjacent to the margin of the retreating ice mass and were a prominent aspect of the paleoecological landscape. Due to glacial lake formation, the physical geography of the valley in most of the SU stands in contrast with that of the valley to the south in southern Dickey County and on into South Dakota. Glacial Lake Dakota formed to the south as the front of the last ice sheet melted back northward. The lake was dammed by the wasting glacial ice front on the north and the proximal side of an end moraine in Beadle County, South Dakota (Bluemle2016; Flint 1955:165; Gregg et al. 1987:7).

Figure 7.1: Map of the James River Study Unit.

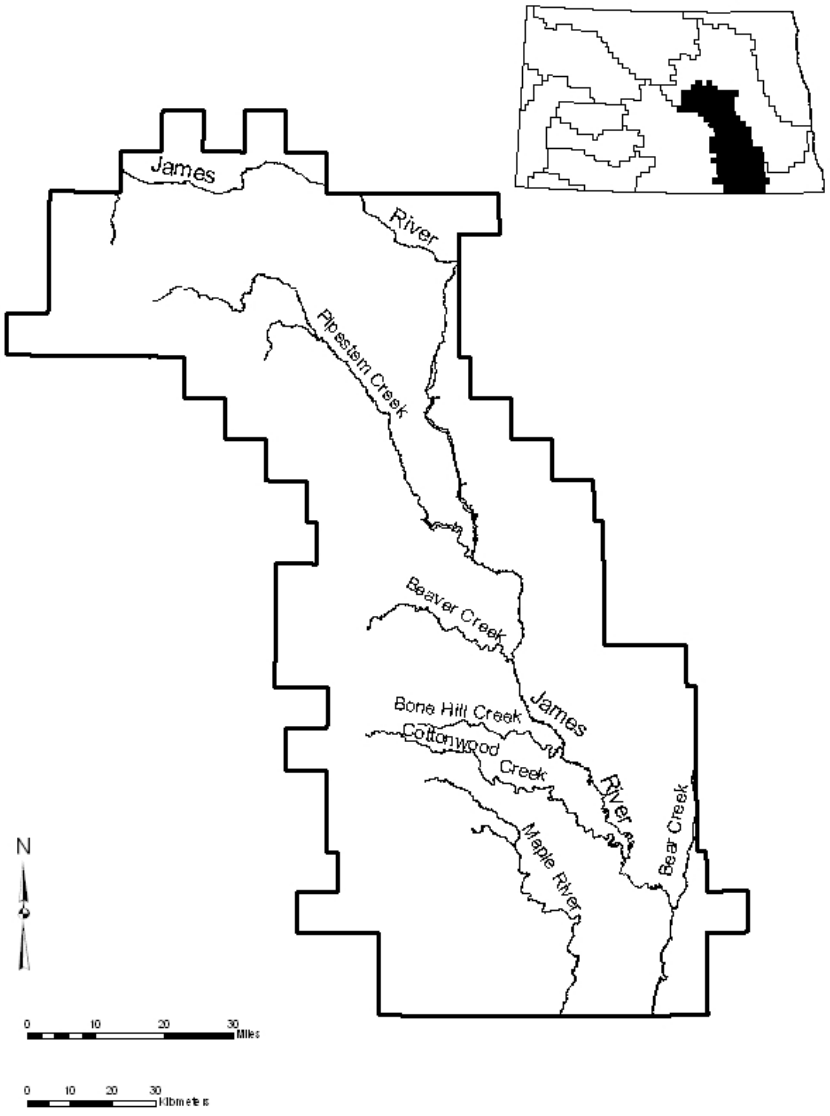

Figure 7.1A: Shaded Relief Map of the James River Study Unit.

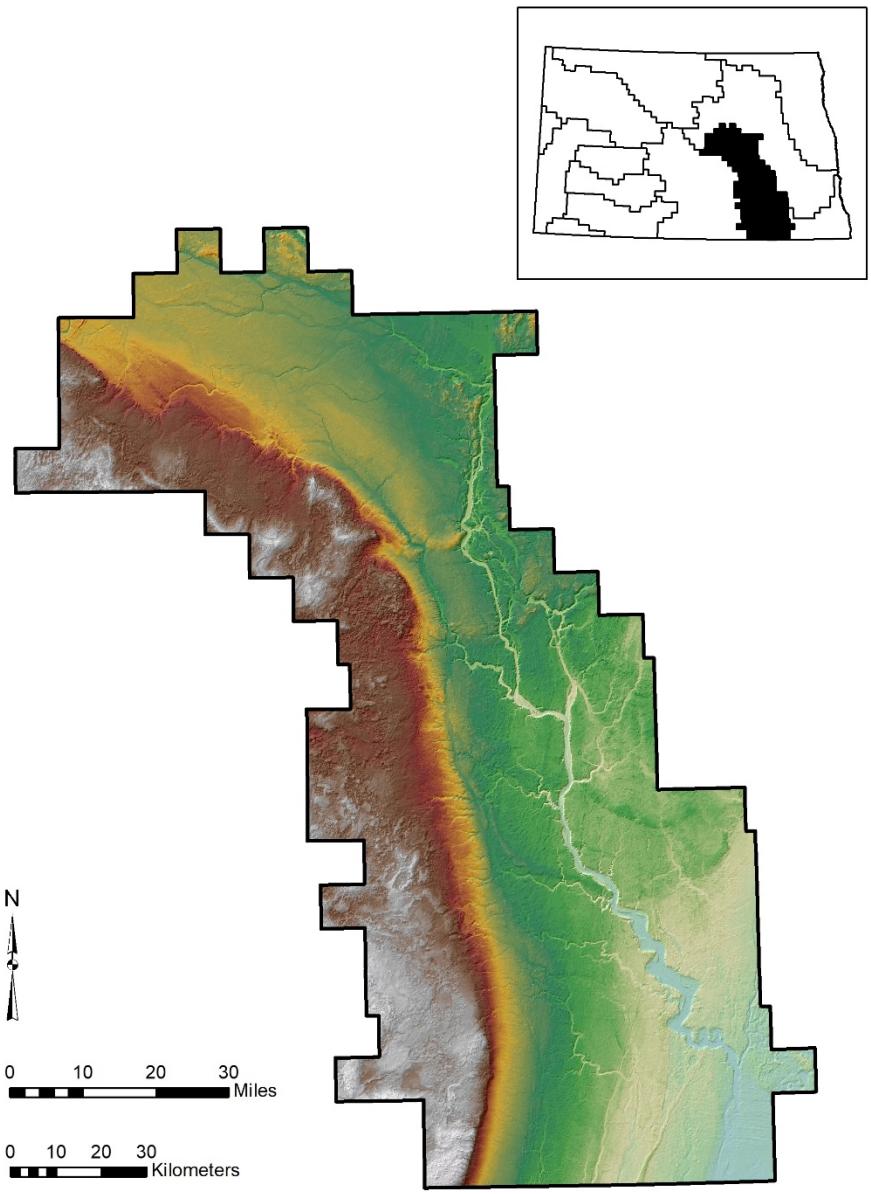

Table 7.1: Townships in the James River Study Unit.

TOWNSHIP	RANGE
129	59
129	60
129	61
129	62
129	63
129	64
129	65
129	66
130	59
130	60
130	61
130	62
130	63
130	64
130	65
130	66
131	58
131	59
131	60
131	61
131	62
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133	59
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133	62
133	63
133	64
133	65
133	66
133	67

TOWNSHIP	RANGE
134	59
134	60
134	61
134	62
134	63
134	64
134	65
134	66
134	67
135	59
135	60
135	61
135	62
135	63
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135	67
135	68
136	59
136	60
136	61
136	62
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136	67
137	59
137	60
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137	62
137	63
137	64
137	65
137	66
137	67
137	68
138	61
138	62
138	63
138	64
138	65
138	66
138	67

TOWNSHIP	RANGE
138	68
139	61
139	62
139	63
139	64
139	65
139	66
139	67
139	68
140	61
140	62
140	63
140	64
140	65
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143	67
143	68
143	69
144	64
144	65
144	66
144	67
144	68
144	69
144	70
145	64

TOWNSHIP	RANGE
145	65
145	66
145	67
145	68
145	69
145	70
145	71
145	72
145	73
145	74
146	64
146	65
146	66
146	67
146	68
146	69

TOWNSHIP	RANGE
146	70
146	71
146	72
146	73
147	64
147	65
147	66
147	67
147	68
147	69
147	70
147	71
147	72
147	73
148	63
148	64

TOWNSHIP	RANGE
148	65
148	66
148	67
148	68
148	69
148	70
148	71
148	72
148	73
149	67
149	68
149	69
149	70
149	71
150	68
150	70

Drainage

About 18,648 km² are drained by the James River in North Dakota. The James River drains into the Missouri River and has its headwaters along the Missouri Escarpment in Wells County, North Dakota. The James River formed primarily after the recession of the last glaciation.

Climate

All of North Dakota is defined as having a subhumid continental climate characterized by wind and extreme temperatures. Winters are long and cold, while summers are short with warm to hot temperatures (Omodt et al. 1966:4-5).

In LaMoure County, the average winter temperature is 12°F. In the summer, the average temperature is 81°F. The average annual precipitation is 18 inches. The average seasonal snowfall is approximately 23 inches (Thompson and Sweeney 1971:114-115).

Landforms and Soils

Uplands, valley wall side slopes, valley wall foot slopes, alluvial fans, river terraces, floodplains, and lake plains include the different landforms present in the SU. Soils found on these landforms formed under a variety of pedogenic factors.

Natural Resources Conservation Service (NRCS) official soil survey resources are available online (NRCS 2021 a, b).

- Electronic Field Office Technical Guide: https://efotg.sc.egov.usda.gov/#/
- Web Soil Survey: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Flora and Fauna

The vegetation that colonized the deglaciated terrain around the glacial lakes is thought to have been a kind of boreal forest containing spruce and deciduous trees with opening dominated by sagebrush (Ashworth and Cvancara 1983). The boreal forests had lower densities of big game animals than either deciduous forests or grasslands (Pettipas and Buchner 1983).

The fluctuating prairie-boreal forest ecotone had shifted east of the Red River by the mid-Holocene (Grimm 1985:12) and prairie grasslands thereafter constituted the dominant vegetative environment of most parts of the Northeastern Plains. Natural and man-made prairie fires inhibited the return to dominance of woodlands (cf. Grimm 1985). The moister climatic episodes of the late Holocene stimulated the entrenchment of woody vegetation along stream channels. The natural prairie of the study area was in the transition zone between the tall grass prairie of the Red River valley and the mixed grass prairie of western North Dakota. Wheatgrass, bluestem, and needlegrass constituted the predominant native vegetation in well-drained areas. Sedges, reeds, river grass, and prairie cordgrass were common in poorly drained locales (Gregg et al. 1987:12).

Within the prairie environment, distinct ecological habitats emerged. Wetlands biotic communities, many of which still exist in the uplands of the Drift Prairie, provide food and cover for game in winter and are essential to waterfowl reproduction cycles. Wetlands habitats also exist within the main valley at numerous oxbow sloughs. Deciduous forest vegetation still can be found on the floodplain along portions of the river and in some drainages feeding it. Native trees of the gallery forest are willow, elm, ash, box elder, cottonwood, and bur oak (Bureau of Reclamation 1986:111-9).

Woody shrubs, flowering plants, and other kinds of understory vegetation are native to the gallery forest and intermittent drainages in the valley. Chokecherry, wild plum, wild rose, currant, raspberry, snowberry, Juneberry, and gooseberry, as well as the trees, provide shelter and forage for a diversity of wildlife (Gregg et al. 1987:12).

The prairie, forest, and riverine environments are currently home to a variety of large and small mammals, birds, fish, reptiles, amphibians, and mollusks. Mammals include white-tailed deer, beaver, badger, raccoon, muskrat, fox, skunk, jack rabbit, cottontail rabbit, mink, weasel, and some insectivores. Avian species include geese, ducks, raptors, and songbirds. Painted turtles, snapping turtles, bullheads, yellow perch, northern pike, and numerous species of aquatic mollusks are present in the river and some tributaries (Cvancara 1976, 1983; Gregg et al. 1987:12; Russell 1975).

Other Natural Resource Potential

The biotic diversity provided a wide array of resources for food, fuel, shelter, and water. Glacial erratics are abundant. Small boulders were abundant in many places and were readily easy to collect to hold tipi covers down, to build cairns, to cap caches and burials, to indicate animal drive line alignments, and many other purposes. Granitic raw materials were used to make ground and pecked stone artifacts. Rocks were also frequently used in stone boiling and sweat bathing.

Knappable stones are found in the stream gravels including Tongue River silicified sediment (TRSS), Swan River chert, chalcedony, quartzite, and occasionally Knife River flint (KRF). Small pebbles of Yellowstone agate occur in trace amounts. Lithic procurement workshop locations within the Wilmart and Isan sites provide baseline data concerning the use of materials in the till (Gregg et al. 1987:491).

In 2021 the South Dakota State Historical Society published *Tool Stone Found at South Dakota Archaeological Sites* edited by Renee M. Boen. The document contains information, photographs, and maps on raw stone materials found at archaeological sites in South Dakota and will be a valuable reference for archaeologists in North Dakota as well. Craig Johnson's *Chipped Stone Technological Organization: Central Place Foraging and Exchange on the Northern Great Plains* (2019) is likewise a valuable resource regarding lithics resources and provides important research questions for future studies.

Overview of Previous Archaeological Work

Archaeological work in this SU has primarily been funded due to federal cultural resources legislation and regulations. The Bureau of Reclamation has administered much of the work in the JRSU. However, other projects have resulted from transportation, energy (windfarms and pipelines) and rural and urban development.

Inventory Projects

As of 31 December 2020, there were 788 archaeological sites and 640 archaeological site leads and isolated finds in the state site files for the JRSU. With its 6,554-mi² area, there is one site recorded for each 8.3 mi². When including sites and site leads/isolated finds there is one site recorded for each 4.6 mi². Only 7.5% of the SU has been surveyed. The density of sites in the JRSU reflects the relatively low amount of inventory work that has been conducted here in comparison with western North Dakota. However, site density is relatively high in surveyed areas.

Tables 7.2 and 7.3 summarize data coded on the site forms for feature types by landform and cultural/temporal affiliations. Site totals vary in some cases because of incompletely coded data or un-coded data for some variables, and in other cases because multiple variables are recorded (e.g., a site might have multiple components or be situated on more than one landform).

Other than cultural material scatters, the site types most represented are mounds, cairns, other rock features, and stone circles. As in other SU, most sites have not been identified as to cultural/temporal affiliation for the JRSU. Late Prehistoric sites (114) are recorded most frequently followed by Archaic (60), Woodland (46), and Paleo-Indian (7).

An isolated KRF Hell Gap-type point was discovered on the edge of a plowed field near Kraft Slough in Sargent County (Toom et al. 1995). The Paleo-Indian (Paleo) point was recorded as a site lead. Several Paleo spear points including Folsom, Agate Basin, Hell Gap, Cody complex, and Scottsbluff have been reported in private collections (Gregg et al. 1985:5-7; 1987:20; Kordecki and Gregg 1986:31; Schneider 1982).

Over half (59.7%) of the recorded sites in the JRSU are situated on hill-knoll-bluffs or ridges. Several sites have also been recorded on terraces and floodplains (23.8%). This is mainly a result of survey focus on the main valley for Bureau of Reclamation planning purposes.

Numerous inventory projects have occurred in the JRSU. Below is a brief description of some of those projects.

Table 7.2: Cultural/Temporal Affiliation of Archaeological Resources in the James River Study Unit, 31 December 2020.

Paleo-Indian	
Unspecified	3
Agate Basin	1
Plano	3
Total	**7**
Archaic	
Unspecified	32
Early Large Side-Notched	2
Oxbow	3
McKean/Duncan/Hanna	12
Pelican Lake	11
Total	**60**
Woodland	
Unspecified	2
Early Woodland	2
Sonota/Besant	11
Avonlea	1
Middle Woodland	21
Blackduck	1
Late Woodland	8
Total	**46**
Late Prehistoric	
Unspecified	79
Plains Village	32
Northeastern Plains	2
Plains Nomadic/Equestrian	1
Total	**114**
TOTAL	**227**

Table 7.3: Feature Type by Landform for Archaeological Sites in the James River Study Unit, 31 December 2020.

SU 7	Cairn	Conical	CMS	Village	Earth	Grave	Hearth	Mound	ORF	Pit	Shelter	Circle	Misc	TOTAL
Alluvial fan			5				1		1			4		**11**
Beach/River bank			15									2		**17**
Beachline (glacial)					1							2		**3**
Butte			1			1	1	1						**4**
Canyon			1						1					**2**
Draw	1		3		1	1			3			1		**10**
Floodplain			66	3	2	1	4		1	1		1		**79**
Hill/Knoll/ Bluff	107		81		1	69	3	72	93	11		91		**528**
Other	6		4			2		3	1	1		10		**27**
Ridge	65	1	20			5	2	16	55	5		64	4	**237**
Saddle	1		1									4	1	**7**
Spur			1						1			1		**3**
Swale	1		1						5			3		**10**
Terrace	7		88	2	4	21	4	61	10	4		21	3	**225**
Upland Plain	13		17			4	1	10	17	2	1	20		**85**
Valley wall foot slope	1		13	1	2	4		5	2			3	2	**33**
TOTAL	**202**	**1**	**317**	**6**	**11**	**108**	**16**	**168**	**190**	**24**	**1**	**227**	**10**	**1281**

Conical=Conical Timber Lodge; CMS=Cultural Material Scatter; Village=Earthlodge Village; Earth=Earthwork; ORF=Other Rock Feature; Shelter=Rock Shelter; Circle=Stone Circle; Misc=Miscellaneous

Alfred J. Hill initiated and sponsored the recording of earthworks and burial mounds from 1881-1895. Hill contracted with T. H. Lewis to conduct the fieldwork which is known as the Northwestern Archeological Survey (NWAS). Lewis recorded thousands of burial mounds and earthworks sites in 11 states in the north central United States and parts of Manitoba (Haury 1990:2; Lewis 1898:8). In North Dakota (Lewis 1886, 1891, 1893) over 200 earthworks, petroglyphs, and boulder formations were recorded in 12 counties (Haury 1990:2). Lewis mapped 152 mounds along the James River (Lewis 1890:1-2). Within the JRSU, 118 earthworks sites were recorded by Lewis. 72 were recorded in Stutsman County, 45 in LaMoure County, and one in Dickey County by Lewis.

In 1989, a Historic Preservation Fund grant, "Documentation of Northwestern Archeological Survey Sites Project," was awarded to the University of North Dakota (UND) (Haury 1990). The primary purpose of the project was to relocate, verify, and record on current NDCRS forms sites Lewis identified a hundred years earlier. In Stutsman County, 37 mound sites were relocated. Twenty-nine mound sites were relocated in LaMoure County. The enigmatic circular earthwork site in Dickey County was not part of this project which focused on the mound sites. During the 1989 survey, an effort was made to determine the reason (i.e., probably destroyed, possible legal location problems, or inconclusive) for not relocating the earthwork sites. In addition to site descriptions and maps, the report by Haury (1990) provides a summary of Lewis' work in North Dakota, a discussion concerning the utility of the NWAS (i.e., accuracy of the records and limitations of the records), and a summary of site types and design of prehistoric mound sites as indicated by the NWAS records.

With the advent of the Inter-agency Archeological Salvage Program, archaeological work occurred in several locations. This program was developed in response to the Bureau of Reclamation (Lehmer 1971:1). Under the direction of the National Park Service and a new department within the Smithsonian Institution, River Basin Surveys (SIRBS), archaeologists attempted to locate and excavate sites prior to dam construction. At that time, the James River and Pipestem Creek valleys north of Jamestown were being considered for construction of the Jamestown and Pipestem Reservoirs (Bauxer 1947; Mallory 1966a, 1966b; Wheeler n.d., 1953, 1954). Work in the James Valley began in 1946 when Bauxer and Cooper surveyed the portion of the river north of Jamestown to be inundated by the construction of the Jamestown Reservoir (Bauxer and Wedel 1947). Seven sites, including five villages, one campsite, and one mound group, were identified during the five-day survey. In 1952, Wheeler, Cain, and Woolworth completed inventory of 45 miles of riverbank between Jamestown and the Stutsman/Foster County line. In addition to the seven sites previously identified, three villages, three campsites, five boulder-lined depressions, 14 mound sites, and two burial sites were recorded. Of these, Hintz village (32SN3), five boulder-lined depressions (32SN30), Kropp Mound (32SN8), Mound 1 (32SN28), and one burial site (32SN31) were tested prior to dam construction (Wheeler 1953).

Other work in the drainage system by the SIRBS was directed toward obtaining a reconnaissance overview rather than completing intensive pedestrian surveys or testing

sites. Although maps of the areas surveyed are not available, site records indicate that in 1965 Oscar Mallory and I. E. Johnson surveyed parts of the river in Wells and LaMoure counties, and in 1966 Glenn V. Dill Jr., an avocational archaeologist, assisted by recording sites in Dickey and LaMoure counties. The sites included three small, fortified sites, two possible occupations, three mound groups, and a stratified site (Mallory 1966). Mallory also completed an inventory of the proposed Pipestem Reservoir but failed to locate any sites in 900 acres of bottomland and 40 miles of shoreline (Mallory 1966).

A three-year project for the Bureau of Reclamation was conducted by UND between 1974 and 1976. In 1974, an archaeological inventory of the James River south of Jamestown was initiated. The project identified 94 archaeological sites including nine stone circle sites, 20 rock cairns, 35 earthworks, 22 cultural material scatters, and eight historic sites (Schneider and Vehik 1976). Later in 1975, archaeologists from UND returned to test seven sites along the James River to be affected by the proposed Oakes canal and bank stabilization projects (Good et al. 1976). The following year, investigations continued with a resurvey of the valley south of Jamestown to the Barnes County border and testing additional sites. The resurvey identified 18 additional sites (Good et al. 1977b:l).

Dakota Interactive Services, Inc., conducted a cultural resources inventory and evaluation of cultural properties on lands within the Jamestown Reservoir management area for the Bureau of Reclamation in 1982 (Brown et al. 1982). The intensive pedestrian survey and shovel probing program along the shoreline of the Jamestown Reservoir recorded 18 new sites and three previously located sites. Eight of these sites were tested.

In 1985 UND conducted additional cultural resources projects for the Bureau of Reclamation. A site survey was conducted along 127 km (79 miles) of James riverbanks from Jamestown in Stutsman County to Grand Rapids in LaMoure County. The river survey found 23 unknown prehistoric sites in eroding cutbank areas (Kordecki and Gregg 1985). Also, a site survey was undertaken of 4,923 hectares (12,161 acres) of irrigation development land in the valley and uplands in Stutsman, LaMoure, and Dickey counties. The area survey recorded 134 sites and isolate finds in floodplain, terrace, valley wall foot slope, alluvial fan, valley wall side slope, and upland areas (Kordecki and Gregg 1986).

In 1992, UND conducted an intensive cultural resources survey of approximately 3,000 acres of public lands at the Jamestown Reservoir for the Bureau of Reclamation. Sixty-one sites were investigated (relocated, newly recorded, or determined to be inundated). Sites include artifact scatters, mounds, stone-lined depressions, rock cairns, stone circles, homestead, dump, and trail (Kordecki, Toom, and Jackson 1993).

Cultural resources were identified south of Spiritwood Lake in 1993. The size of the project area was approximately 200 m east-west by 150 m north-south (Stine 1993a:3). The project area extended from the shoreline south to the uplands. Recorded cultural resources include: (1) a small, disturbed mound with bone and lithics on its surface, (2) a concentration of unburned and burned bone fragments and fire-cracked

rock, and (3) unburned and burned bone fragments, native ceramics, and lithic debitage eroding out of a gravel road (ibid.:6). Stine (ibid.:7) proposes that the artifact concentrations are part of site 32SN103, to the south.

In 1993, Toom and Kordecki (1994) assessed the condition of flood prone sites across the state. Sixteen sites are within the JRSU. Seven sites were assessed as undamaged. The remaining nine sites were assessed as flood damaged and mitigation measures were recommended. These flood damaged sites, including several discussed in this document, are Ptega (32LM15), Martin (32LM239), Ituhu (32SN110), Nelson (32SN111), Tahuka (32SN113), Akata (32SN121), Kirschenmann II (32SN221), Naze (32SN246), and Kirschenmann III (32SN247) (ibid.). All the sites are located along the James River.

In 1994, archaeologists conducted sample inventories, (re)visiting previously and newly recorded sites in the Lonetree Wildlife Management Area (Toom et al. 1998). The Lonetree project area crosses Sheridan and Wells counties and the JRSU, Sheyenne River SU, and Souris River SU. Nineteen archaeological sites were recorded in 1994. Most of the newly recorded sites were recorded on the eastern end of the project area on valley rim and upland landforms (ibid.:Table 4.2).

In 1995, approximately 400 acres within the Drift Prairie region were intensively inventoried by UND (Kordecki and Toom 1996:1). “The project intended to produce information that would contribute toward our knowledge of the numbers and kinds of sites that are found adjacent to the larger Drift Prairie lakes” (ibid:iii). The project area was adjacent to Spiritwood Lake in Stutsman County. Spiritwood Lake is a freshwater body within glacial moraine terrain. Seven prehistoric cultural resources were recorded/updated during the intensive inventory. The feature types include three cultural material scatters, two mounds, and two cultural material scatter/mounds (ibid.:Table 4). The sites are situated on upland plains and hills, with both types of sites found on both types of landforms. The locations of these sites correlate to conclusions made by investigators. That is, the combinations of feature types and landforms reflect general trends throughout the region. Occupation sites (cultural material scatters) generally are located at relatively lower elevations and other site types generally at higher elevations (ibid.:79).

Four linear segments were surveyed in Dickey and LaMoure counties for a proposed electric buried cable. The project corridor was 50 feet wide and totaled 6.3 miles (Scott 1997:8). The survey segments covered (1) flats and terraces overlooking the Maple River to the east, (2) a Maple River crossing with floodplains on either side, (3) uplands, valley edge, and toe slope of the James River valley, and (4) bottomlands and terraces up to the western toe slope of the James River valley and to the uplands (ibid.:6). Two prehistoric isolated finds, each containing one flake, were recorded in the fourth area described. Investigators recommended no further work.

Several segments of the proposed Alliance pipeline access roads and shooflies crossed the JRSU. The Wells County segment was situated on a floodplain of the Big

Slough (Kulevsky and Hannum 1999:6). The other segments were in flat to slightly rolling terrain in Foster County (Fassler 2000:6-9). In these areas, any shallow depressions were filled with water and previous disturbances included agricultural activities and construction of gravel roads. No new sites were observed. Two previously recorded sites (32FO21 and 32FO29) were avoided by rerouting the proposed pipeline facilities.

In 1998 the University of North Dakota conducted archaeological investigation in the Jamestown Dam project area of the U.S. Bureau of Reclamation, Dakotas Area Office. The project included mapping and documentation of eight earthen mound sites (32SN25, 32SN84, 32SN86, 32SN90, 32SN92, 32SN93, 32SN175, and 32SN176), three stone-lined depression sites (32SN23, 32SN27, and 32SN182), one site with stone-lined depressions and a mound (32SN181), and two rock cairn sites (32SN72 and 32SN88) (Jackson 2001). In addition, four sites were tested (see section below on Formal Test Excavation Projects).

In 2002, an intensive inventory was conducted for a proposed wind farm east of Kulm, North Dakota. The project area included 30 wind turbine locations, three substation locations, access routes, and a transmission line (Meyer 2003:1). The areal topography is characterized as flat to hummocky, dotted by sloughs and lakes. Virtually the entire project area has been cultivated. Two prehistoric sites, one prehistoric/historic site, and one prehistoric isolated find (a flake) were recorded during the survey (ibid.:20). Site 32LM202 is a sparse prehistoric cultural material scatter atop a hill (ibid.:30). Located on a larger hill, 32LM119 is a moderately dense prehistoric and historic cultural material scatter (ibid.:26). Site 32LM203 is a stone circle site with “an anomalous linear feature” on a wide, raised area above slough (ibid.:32).

During 2004 and 2005, an inventory, including shovel probes, was conducted by the NDDOT for the proposed James River Valley Scenic Backway. The proposed project locations avoided known cultural resources. Six of the 18 proposed locations for signage were intensively inventoried (Wermers 2004:1). One prehistoric isolated find (a Swan River chert flake) and one historic site were recorded (ibid.:7). The prehistoric artifact was recovered from a shovel probe place on an upland edge, east of the James River valley.

Between August 2015 and 31 December 2020, 105 inventory reports have been submitted to the State Historic Preservation Office (SHPO) with 98 archaeological sites being recorded and 112 archaeological site leads/isolated finds recorded. The majority (44%) of cultural resource projects relate to transportation and material source projects. Thirty-two percent represent results from wind energy and transmission lines, 23% from rural and urban development, and 1% from other projects (tree plantings, irrigation, fence, bank stabilization, recreation, etc.).

Formal Test Excavation Projects

The Hintz village (32SN3), five boulder-lined depressions (32SN30), Kropp Mound (32SN8), Mound 1 (32SN28), and one burial site (32SN31) were tested prior to dam construction (Wheeler 1953). Wheeler's excavations at the Hintz site (32SN3) revealed that an earthlodge village lifeway was ongoing here during late prehistoric or protohistoric times.

Shoreline erosion of the Pipestem Reservoir exposed a burial site (32SN102) which was salvaged and analyzed by UND (Fox and Pearson 1978).

In 1975, UND tested seven sites along the James River that were scheduled to be affected by the proposed Oakes canal and bank stabilization projects by the Bureau of Reclamation (Good et al. 1976). The tested sites were Kirschenmann II (32SN221), 32SN242, Martin (32LM239), Schmoker (32LM241), Chappel (32LM240), Quast (32LM234), and Beeber (32LM235). The following year the Naze site (32SN246), Kirschenmann III (32SN247), Hendrickson III (32LM403), and Martin II (32LM401) were tested by UND for the Bureau of Reclamation (Good et al. 1977). Additional excavation was conducted at some of these sites, and these are further discussed below in the section on major excavations.

In 1982, Dakota Interactive Services, Inc., conducted test excavation within the Jamestown Reservoir management area for the Bureau of Reclamation. Five lithic scatters (32SN71, 32SN82, 32SN74, 32SN81, 32SN83) were tested. Sites 32SN71 and 32SN82 were "determined not to potentially contain significant subsurface scientific or cultural data" (Brown et al. 1982:130). Further testing was recommended for the other three sites, as they were eroding due to wave action (ibid.:131).

In 1984, archaeological testing was conducted by UND (Gregg et al. 1985) for the Bureau of Reclamation at nine sites along the James in Stutsman and LaMoure counties, and one site in the vicinity of the proposed Taayer Reservoir in Sargent County. Investigations at 32SA205, 32SA206, 32SA208, Hendrickson III, Hendrickson II (32SN402), Naze, Kirschenmann II, Kirschenmann III, Martin, Chappel, Beeber, and Quast were conducted. Testing supplemented existing information concerning site significance and determined site limits. Additional excavation was conducted at several of these sites and are further discussed below in the section on major excavations.

Test excavation and site evaluation work was performed at eight prehistoric sites in James riverbank stabilization areas for the Bureau of Reclamation in 1985 by UND. The tested sites are 32SN216 (Wolf), 32SN215 (Gohner I), 32SN119 (Mayer), 32SN111 (Nelson), 32LM401 (Martin II), 32LM236 (Stroh), 32LM243 (McCleary), and 32LM244 (Chappell II). The test excavations identified the oldest and most deeply buried cultural deposits found to date in the study area (Gregg et al. 1986).

In 1986, UND text excavated 15 prehistoric and protohistoric archaeological sites for the Bureau of Reclamation situated in areas of anticipated bank stabilization

construction in Stutsman and LaMoure counties. The tested sites are 32SN57 (Makacega), 32SN58 (Greenwood Village), 32SN59 (Olson), 32SN106 (Larson), 32SN107 (Wilmart), 32SN120 (Isan), 32SN121 (Akata), 32SN110 (Ituhu), 32SN113 (Tahuka), 32SN114 (Cokan), 32LM8 (Kazapa), 32LM9 (Wanitipi), 32LM29 (Walde), 32LM15 (Ptega), and 32LM22 (Peterson). Testing was conducted for the purpose of evaluating eligibility for listing in the National Register of Historic Places (NRHP). All 15 of the sites tested are evaluated as eligible for NRHP listing. Additional excavation was conducted at several of these sites, and these are further discussed below in the section on major excavations.

Testing was conducted on five acres, within the site limits, of 32WE34 for the Western Area Power Administration (Deaver 1995). The site is located on Hawks Nest Hill, a high point in east-central North Dakota. The testing program involved survey, auger probes, and test-unit excavation. A cultural material scatter, including lithic debitage and tools, butchered bone, native ceramics, and fire-cracked rock, and "10 possible earthen features (conical and linear mounds) around the edges of the hilltop" were documented (ibid.:5.1). Burial mounds are known to have been constructed in the area, and the investigator points out the similarity of the 32WE34 artifact assemblage to those of 32SN22 (Jamestown Mounds) and 32SN207 (ibid.:6.1).

In 1993, UND conducted archaeological inventory and testing at the site of the proposed Kraft Slough National Wildlife Refuge in Sargent County. During the survey, an isolated KRF Hell Gap-type point was discovered on the edge of a plowed field and recorded as a site lead (Toom et al. 1995). The two tested sites, 32SA54 and 32SA55, are sparse, surficially expressed cultural material scatters. Based on the presence of Middle Plains Village period ceramics and a Plains side-notched point, 32SA54 has been dated to ca. AD 1500-1600 (ibid.:72). Two body sherds, similar to those found at 32SA54, were recovered at 32SA55 (ibid.:89). Investigators speculate that the latter site is an outlying activity area related to 32SA54, a short-term field camp (ibid.).

Testing was conducted at 37 sites along the proposed Alliance Pipeline in 1997 (Stine et al. 1998a). Additional testing and site evaluations were undertaken in 1998 at 21 sites (Stine et al. 1998c). The pipeline enters North Dakota from Canada, beginning north of the community of Sherwood, running southeasterly, and exits Richland County near the intersection of the North Dakota, South Dakota, and Minnesota borders. Within the JRSU, 13 sites in Foster and Wells counties were tested. Investigators recommended three sites as significant and eligible for the NRHP (Stine et al. 1998a.:i-ii). Two of these sites originally were recorded as prehistoric buried cultural material scatters (32FO21 and 32FO25) and a prehistoric surficial cultural material scatter (32FO20). These three sites are along Kelly Creek, within a 4.5-mile segment of the proposed pipeline corridor with the highest site density (one site per 0.45 miles) on the route (ibid.:196). In 1998, 32FO31, a buried prehistoric cultural material scatter southwest within the high-density segment, was tested and recommended eligible for the NRHP by investigators (Stine et al. 1998c:130).

In 1998 the University of North Dakota tested four artifact scatter sites (32SN81, 32SN178, 32SN180, and 32SN184) and two stone circle sites (32SN75 and 32SN85. sites in the Jamestown Dam project area for the U.S. Bureau of Reclamation, Dakotas Office (Jackson 2001). Mapping and documentation were completed for eight earthen mound sites (32SN25, 32SN84, 32SN86, 32SN90, 32SN92, 32SN93, 32SN175, and32SN176), three stone-lined depression sites (32SN23, 23SN27, 32 SN182), one site with stone-lined depressions and a mound (32SN181), and two rock cairn sites (32SN72 and 32SN88). A brief discussion of each of the tested sites follows.

Site 32SN75 is a short-term field camp with six stone circles and one stone alignment located on an upland flat overlooking a tributary of the James River valley. Four 1-x-1-m test units were excavated in and adjacent to two stone circles. Stone tools, chipped stone flaking debris, fire-cracked rock, native ceramics, and natural ochre was recovered. A single Plains Village component was identified, and the site was determined eligible for listing in the National Register of Historic Places. The stone alignment feature consisted of 93 stones in a circular pavement with an average diameter of 3.9 m of unknown function. A single Northeastern Plains Village field camp was also identified at site 32SN81 by excavating five 1-x-1-m test units. Stone tools, chipped stone flaking debris, fire-cracked rock, native ceramics, bone, shell, charcoal, burned earth, seeds, and natural ochre were recovered. An earth oven feature (roasting pit) was identified. Jackson (2001:5.29) states:

> Ovens were often used to cook foods that required extended cooking periods, especially plant foods with complex carbohydrates (i.e., roots, bulbs, tubers, etc.) …Ovens were also used to bulk process foods for large groups of people. In these situations, plant and animal foods that did not require extended cooking to be made digestible could be efficiently processed en masse.

Site 32SN85 was a Northeastern Plains Village stone circle (16 rings) site located and a pair of earthen mound sites (32SN84 and 32SN86). Test excavations consisted of excavating eight 1-x-1-m units in and outside of four stone circle features. Stone tools, flaking debris, native ceramics, fire-cracked rock, and bone were recovered. A short-term field camp was proposed, and the site was considered eligible for listing in the National Register of Historic Places.

Site 32SN178 was also tested by the University of North Dakota in 1998 (Jackson 2001:7.1-7.38). Six 1-x-1-m test units and three bank profiles were excavated. A Northeastern Plains Village complex component and a potentially earlier component was identified. The site represents a field camp or residential base camp. Tool production, hunting, and a variety of domestic activities including cutting, slicing, sawing, scraping, graving, and digging were identified. Cooking was evident by the presence of ceramics, fire-cracked rock, and bone. The site was recommended as eligible for listing in the National Register and salvage excavations recommended due to erosion and other impacts.

Site 32SN180 is a sparse cultural material scatter that was tested by the University of North Dakota in 1998 (Jackson 2001:8.1-8.20). Four 1-x-1-m test units and two bank profiles were excavated. A Northeastern Plains Village complex was identified. Ceramics, stone tools, flaking debris, fire-cracked rock, and unmodified bone were recovered. A short-term field camp or specialized activity location was proposed. The site was recommended and ineligible of the National Register of Historic Places because of the paucity of recovered cultural materials.

Site 32SN184 is a sparse cultural material scatter tested by the University of North Dakota in 1998 (Jackson 2001:9.1-9.12). Two 1-x-1-m test units and one bank profile was used to evaluate the site. Stone tools, chipped stone flaking debris, ceramics, fire-cracked rock, and bone were recovered. A Northeastern Plains Village component was identified based on a recovered ceramic body sherd. The site was recommended as having no potential for buried and intact archaeological deposits.

From 2002 through 2004, test excavations were conducted at nine sites within the boundaries of Camp Grafton South (Jackson et al. 2006). The project area is within the Prairie Pothole Region between the Sheyenne and James rivers. One site, 32ED29, is within the JRSU; the other eight are within the Sheyenne River SU. Site 32ED29 contains stone features and a cultural material scatter. It is in uplands west of the drainage divide between Lake Coe and Cherry Lake (ibid.:7.1). Disturbances to the area include National Guard activities and a road that runs the length of the site. Seventy auger probes were place across the site (ibid.). Testing results indicate that the cultural material scatter is surficial and, with the presence of two native ceramic sherds, dates to some time with the range of 500 BC-AD 1800 (ibid.:7.9). Investigators speculate that the cultural items may have been deposited when the road was constructed (ibid.).

Sites 32ED42 and 32ED94 (Pinkerton Ranch) were tested in 2002-2004 at Camp Grafton South (Toom et al. 2007). Site 32ED42 was identified as a small field camp having a Sonota complex component (AD 1-600). The Pinkerton Ranch Site is an extensive, deeply stratified prehistoric site with several short-term field camps by small groups of hunter-gatherers. Components identified include 1) Plains Village and/or Late Woodland, 2) Late Middle Minnesota Woodland – Brainerd complex, 3) Middle Plains Woodland – Sonota complex, 4) Early Plains Woodland, 5) Late Plains Archaic, 6) Middle Plains Archaic – McKean Complex, and 7) Early Plains Archaic – Oxbow complex (ibid. 8.74). Multiple AMS radiocarbon dates are presented in the report for the Pinkerton Ranch site (ibid. 8.43).

In 2008 the University of North Dakota conducted test excavations at the Fairbanks site (32SN174) located on Bureau of Reclamation managed lands at the Jamestown Reservoir. In 2015, the Midwest Archeological Center entered into an Interagency Agreement with the Bureau of Reclamation to complete archive and artifact cataloging, and the production of a report (Nycz and Plock 2016). Three test units were excavated from depths ranging to five meters. Multiple components were identified with a late Early Plains Archaic or Middle Plains Archaic period represented at approximately four meters. Modified lithics, fire-cracked rocks and bison bones associated with wood

and charcoal were recovered. A two-sigma range of 3356-3031 BC (4500±35 years BP) radiocarbon date was obtained for this component. Woodland and Northeastern Plains components were also present. Two rims were identified as Middle Plains Woodland Laurel ceramics (ibid.26-28). Late Woodland ceramics with cord-wrapped stick impressions are also present. Most artifacts were recovered from the Northeastern Plains Component. This component appears to have a mix of Northeastern Plains and Middle Missouri pottery, possibly related to the contemporary Hintz Village (Wheeler 1963). Wheeler suggested the Hintz site may be associated with the Painted Woods complex, associated with the Hidatsas. Other sites along the James River with pottery like those in the Middle Missouri include Tahuka (32SN113) and Greenwood Village (32SN58) (Gregg et al. 1987). The Fairbanks site has produced significant information and should be monitored on a regular basis. The authors (Nycz and Plock 2016:45) recommended further testing to determine site boundaries and intact deposits.

Table 7.4: Formal Test Excavation Projects in the James River Study Unit, 31 December 2020.

Year	First Author	Second Author	Title	Site Number	MS #
1976	Good, K.	J. Dahlberg	Archeological Investigations in the LaMoure-Oakes Project Area, Garrison Diversion, North Dakota	32SN221, 32LM239, 32LM240, 32LM235, 32LM234	102
1977	Good, K.	J. Kinney	Archeological Investigations in the LaMoure-Oakes and Wild Rice River Project Areas	32SN246, 32SN247, 32SN403	103
1982	Brown, M.	K. Brown	Test Excavations at Sites 32WE101, 32WE103, 32WE109 and 32WE122, Located in the Proposed Lonetree Reservoir and Dikes and New Rockford Canal, Wells County, ND	32WE101,32WE103	3111
1983	Deaver, K.		Archeological Site Testing & Evaluation in the Lonetree Reservoir, Garrison Diversion Unit, Sheridan & Wells Counties, ND	32WE107, 32WE117	3240
1986	Deaver, K.		Archeological Excavation at Sites 32SH110 and 32WE107, Sheridan and Wells Counties, ND	32WE107	3947
1985	Gregg, M.		Archeological Investigations in the Southern Section of the Garrison Diversion Unit in North Dakota, 1984	32SA206, 32SN402, 32SN221, 32LM239	3899
1986	Gregg, M.	P. Picha et al.	Test Excavations at Eight Archeological Sites on the James River in Stutsman and LaMoure Counties, ND (Contribution 232).	32SN216, 32SN215, 32SN119, 32SN111, 32LM401, 32LM236, 32LM243, 32LM244	4108
1987	Gregg, M.	F. Swenson et al.	Test Excavations at 15 Archeological Sites Along the James River in Stutsman and LaMoure Counties, ND	32SN57, 32SN58, 32SN59, 32SN106, 32SN107, 32SN120, 32SN121,	4901

Year	First Author	Second Author	Title	Site Number	MS #
				32SN110, 32SN113, 32SN114, 32LM29, 32LM15, 32LM22	
1995	Toom, D.	C. Kordecki et al.	Kraft Slough Cultural Resources Investigations, Including Testing of Archeological Sites 32SA54 and 32SA55, Sargent County, ND 1993 Field Season	32SA54, 32SA55	6435
1995	Deaver, K.		Testing and Evaluation of Site 32WE34 Wells County, ND	32WE34	6663
1998	Stine, E.	M. Cassell	Alliance Pipeline Project: Phase II Testing & Evaluation of 37 Sites in ND, Volumes I and II	32WE91, 32WE94, 32WE95, 32FO19, 32FO20, 32FO21, 32FO22, 32FO23, 32FO24, 32FO25, 32FO26, 32FO27, 32FO28, 32FO29,	7212
1998	Stine, E.	M. Hannum	Phase II Testing & Evaluation of 21 Sites & Five Sites Revisited an Addendum to Alliance Pipeline Project: Phase II Testing and Evaluation of 37 Sites in ND (Reports of Investigation Number 513)	32FO29, 32FO31, 32FO32	7329
2001	Morrison, J.		Here We Go Round Again: Evaluative Testing of 32SN199, Stutsman County, ND	32SN199	7817
2001	Jackson, M.		Jamestown Dam Project Area 1998 Archeological Investigations, Stutsman County, North Dakota	32SN75, 32SN81, 32SN85, 32SN178, 32SN180, 32SN184	7611
2006	Jackson, M.	C. Kordecki	Camp Grafton South Upland Sites: 2002-2004 Archeological Test Excavations, Eddy County, North Dakota	32ED29	9739
2007	Toom, D.	M. Jackson	Camp Grafton South Lowland Sites: 2002-2004 Archeological Test Excavations, Eddy County, ND	32ED42, 32ED94	10356
2016	Nycz, C.	L. Plock	Archeological Investigations at the Fairbanks Site (32SN174), Stutsman County, North Dakota	32SN174	16906

National Register of Historic Places

Sites in North Dakota listed in the National Register of Historic Places are available on the National Park Service website.

Major Excavation Projects

In 1982, the State Historical Society of North Dakota (SHSND) conducted salvage excavations of three burial mounds (32SN22) and tested an adjacent occupation area (32SN207) (Snortland-Coles and Fox 1985). Results of this work indicate that

interment of the dead in earthen tumuli was practiced by regional groups from 500-2,000 years ago.

In 1985, excavations at the Naze site (32SN246) were conducted for the Bureau of Reclamation by UND. A 60 m^3 block area was excavated. Archaeological investigations at the Naze site documented stratified cultural deposits from the Late Plains Archaic, Early Plains Woodland, Middle Plains Woodland, Plains Village, and Protohistoric periods (Gregg 1987). Additional excavations were conducted in 1994 by the University of North Dakota to salvage archaeological materials prior to planned bank stabilization work (Toom 2007). Additional radiocarbon dates for the site were obtained and additional analysis of materials from the above-mentioned components are described.

Salvage excavations were undertaken at the Kirschenmann III site (32SN247) in 1994 (Toom 2003). The Kirschenmann III site is part of the Upper James River Study Area (UJRSA) that extends from the Jamestown Reservoir south to the confluence of the James River and Bear Creek. The UJRSA also includes the Nelson, Naze, Ituhu, Akata, and Tahuka sites. Kirschenmann III is located east of the James River on a floodplain. Three components, dated by radiocarbon analysis, have been identified at the site, including: (1) Late Woodland-B (ca. AD 890); (2) Late Woodland-A (ca. AD 1110); and (3) Early Plains Village (ca. AD 1290) (ibid.:iii). Cultural deposits suggest that throughout prehistory the site functioned as a residential base camp of hunter-gatherers, with an emphasis on bison hunting during the Late Woodland period and a shift to a more sedentary lifeway during the Early Plains Village period (ibid.:15.1). The appearance of evidence for "low-intensity, maize-based horticulture" at the site indicate the transition (ibid.:15.1). In his Kirschenmann III summary Toom (ibid.:15.2) states, "There is every indication that maize-based horticulture was practiced locally, in the upper James River valley, by peoples of the Northeastern Plains Village complex…"

Block excavations were conducted at the Ituhu site (32SN110) in 1995 by the University of North Dakota prior to proposed bank stabilization work (Toom 2008). Protohistoric (or early Historic) and Plains Village components were identified. The Plains Village component was radiocarbon dated to ca. cal. A.D. 1350 and affiliated with the Northeastern Plains Village complex. The area excavated in 1995 was suggested to be a horticultural garden location (ibid.:iii). The earlier test excavation at the site in 1986 identified a field camp or residential base camp in that area of investigation (Gregg et al. 1987:260-280.

Block excavations were conducted in 1996 by the University of North Dakota at the Akata site (32SN121) to salvage archaeological materials prior to bank stabilization (Toom 2014). Nine archaeological components or occupational episodes spanning 3,000 years were identified: Late Plains Archaic, Early Plains Woodland, Middle Plains Woodland, Late Woodland, Terminal Woodland (Sandy Lake), and Plains Village occupations. Warm-weather residential base camp occupations are proposed. Bison hunting was a highly important economic activity. However, general foraging activities including gathering of wild plant foods were important as well.

Major excavation was undertaken at the Nelson site (32SN111) in 2000 in response to a proposed bank stabilization project (Toom and Jackson 2003). The Nelson site is part of the UJRSA (see discussion above). Specifically, the Nelson site is within a floodplain of the James River (ibid.:1.2). It was initially identified as a Late Plains Archaic site (Gregg 1985) based on two radiocarbon dates of 760-390 BC (corrected calendar date range) and recorded artifacts. In contrast, Toom suggests the site is Early Plains Woodland based on four radiocarbon samples dating to ca. 500 BC, 12 native ceramic body sherds (mean thickness of five sherds is 3.92 mm±0.25 mm, and two projectile points (Toom and Jackson 2003:11.1). Considering the radiocarbon curve during this period, the site is likely at the cusp of the terminal Late Archaic and initial Early Woodland periods.

Data recovery was conducted in 2000 at 32FO21 because of the route of the proposed Alliance pipeline (Murray 2000; also see Test Excavation Projects section above). The prehistoric multi-component site is located east of Kelly Creek on a sloping bench and flat terrace used for pasture (ibid.:i). Geophysical investigations were conducted at the site in 1999 to identify anomalies below ground surface (ibid.:ii). Later, 49.2 m^3 of soil was excavated by shovel and auger testing and block unit excavation (ibid.). Intact paleosols and cultural deposits date the site to the late Paleo/Early Plains Archaic and Plains Woodland periods. The artifact assemblage included: chipped stone tools and debris (approximately 80% KRF), one possible hammerstone, bone and shell fragments, and possible fire-cracked rock (ibid.). Samples of stratified paleosols, both containing low amounts of cultural materials, returned radiocarbon dates of 6410±70 RCYBP and 4270±80 RCYBP (ibid.:iii). Murray (ibid.:iv) summarizes the results from 32FO21 and describes a common predicament on linear projects such as pipelines:

> Archeological data in the Alliance pipeline area was limited in quantity, quality, and spatial extent….Cultural material is discontinuously distributed in three small localities in the project area, and cultural deposits along the Alliance centerline trench and in the southern half of the project area possess poor integrity…The relatively meager results of data recovery work suggest that the project area lies along the fringe of a larger, possibly more substantial habitation site just beyond the project area. Based on the results of data recovery investigations in the current project area and earlier work at the site, it appears that 32FO21 offers the most research potential in the expansive lower terrace that continues north and west beyond the project area inside a loop of Kelly Creek. This area was minimally tested during previous work. Since this area is not within the current Alliance project area, it was not a focus of data recovery.

Excavations were undertaken at 32DI95 (Gabriel) for a wind farm project (Grohnke et al. 2008). Construction was able to avoid six stone circles, two cairns, two rock-lined depressions, a rock alignment, and a petroform. One stone circle and other areas of the site would be impacted so those areas were investigated. Middle Plains

Archaic (McKean Complex) and Plains Woodland components were represented. A possible Paleo component was also suggested.

Table 7.5: Major Excavation Projects in the James River Study Unit, 31 December 2020.

Year	First Author	Second Author	Title	Site Numbers	MS #
1952	Wheeler, R.		Field Notes—32SN3—Hintz Site	32SN3	73
1952	Woolworth, A.	R. Wheeler	Field Notes: 32SN28 and 32SN30 Photos and Specimen Catalogues	32SN28, 32SN30	74
1953	Wheeler, R.		Appraisal of the Archeological & Paleontological Resources of the Jamestown Reservoir, ND: Supplement	32SN3, 32SN30, 32SN31, 32SN8, 32SN28, 32SN19	72
1953	Wheeler, R.		Kropp Mound Site (32SN8)	32SN8	129
1963	Wheeler, R.		The Stutsman Focus: An Aboriginal Culture Complex in the Jamestown Reservoir Area, ND. River Basin Surveys Papers 30, Bureau of American Ethnology Bulletin 185, Smithsonian Institution, Washington, DC	32SN3, 32SN30	
1977	Good, K.	J. Dahlberg	Archeological Investigations of the Hendrickson III Site-32SN403, LaMoure-Oakes Project Area, Garrison Diversion Unit, ND	32SN403	70
1978	Fox, R.	J. Pearson	Site 32SN102, Stutsman County, ND: A Description and Analysis	32SN102	588
1983	MacDonald, L.		Archeological Investigations at Site 32WE103 Wells County, ND	32WE103	3218
1984	Snortland, J.	G. Fox	The Jamestown Mounds Project, Stutsman County, ND	32SN22, 32SN207	6200
1987	Gregg, M.		Archeological Excavation at the Naze Site (32SN246)	32SN246	4426
1995	Toom, D.		James River Project Preliminary/Field Report on the 1995 Archeological Excavations at the Ituhu Site (32SN110), Stutsman County, ND	32SN110	6561
1995	Toom, D.		James River Project Laboratory Report for Archeological Excavations at the Kirschenman-III (32SN247), Naze (32SN246), and Ituhu (32SN110) Sites, Stutsman County, ND	32SN247, 32SN246, 32SN110	6562
2000	Murray, M.		Alliance Pipeline Project: Data Recovery at 32FO21, a Multicomponent Prairie Archaic Occupation on Kelly Creek in the James River Study Unit, Foster County, ND, Volumes I and II	32FO21	7765
2003	Toom, D.		James River Archeological Projects 1994-2000 Background and General Research Design and Kirschenman-III Site (32SN247) 1994 Archeological Excavations Stutsman County, ND James River Report, Nos. 1, and 2	32SN247	8755
2003	Toom, D.	M. Jackson	Nelson Site (32SN111) 2000 Archeological Block Excavation Stutsman County, ND James River Report Number 3	32SN111	8802
2007	Toom, D.		Naze Site (32SN246) 1994 Archeological Excavations, Stutsman County, North Dakota	32SN246	19480

Year	First Author	Second Author	Title	Site Numbers	MS #
2008	Toom, D.		Ituhu Site (32SN110) 1995 Archeological Excavations Stutsman County, North Dakota	32SN110	19479
2008	Grohnke, R.	Anderson, A.	Archeological Data Recovery Excavations of 32DI0095, The Gabriel Site, Albertha Township, Dickey County, ND	32DI95	10360
2014	Toom, D.		Akata Site (32SN121) 1996 Archeological Excavations, Stutsman County, ND	32SN121	15478

Stone Circle and Cairn Sites

Although several stone circle sites (186) and cairn sites (64) have been recorded (See Table 7.3), very few have been tested (Table 7.6). Sites listed in this table were **formally tested, meaning at least one 1-x-1-m unit** was excavated at the site.

Table 7.6. Tested or Excavated Stone Feature Sites in the James River Study Unit, 31 December 2020.

Site Number	Tested Feature Type	Test Unit Location	Cultural Material	Comments	Cultural/ Temporal Affiliation	MS #
32DI95	Circle Cairn	Inside, Outside	Yes		Plains Archaic Plains Woodland	10360
32FO19	Circle	Inside, Outside	Yes			7212
32SN75	Circle and alignment	Inside, Outside	Yes		Northeastern Plains Village	7611
32SN85	Circle	Inside, Outside	Yes		Northeastern Plains Village	7611
32WE103	Circle Cairn Other Rock Feature		Yes	Not a stone circle		3111 3218
32WE107	Circle Cairn	Inside, Outside	Yes	Radiocarbon Thermoluminescence	Blackduck/ Onamia, St. Croix	3240 3947

Other Work

The earliest archaeological investigations, written observations, and reported digging focused on mounds and earthworks overlooking the James River valley (Gregg et al. 1987). In 1871, A. J. Comfort (Acting Assistant Surgeon in the US Army) produced an ethnographic report that included descriptions of Indian mounds along the James River in the vicinity of Fort Wadsworth, South Dakota, to the confluence of Bone Hill Creek and the James River in North Dakota (Comfort 1873:234).

In 1872 Cyrus Thomas investigated Indian mounds under the auspices of the US Geological and Geographical Survey. Thomas recorded four sites on the western bank of the James River and apparently excavated part of the Jamestown Mounds site (32SN22). Only two of the four sites are described in his report, and both are mound sites (Thomas 1894:160).

George Beardsley, a land surveyor, laid out the township and section lines in the Beaver Creek and James River confluence area in 1875. Notations of earthen mounds and fortifications of an "early race" located on the bluff tops southwest of the confluence are included in his record (Beardsley 1875, cited in Gregg et al. 1987).

In the Jamestown area in 1878, human burials were exposed in mounds by military personnel from Fort Seward, railroad workers, and others (Foster 1878, cited in Fox 1985). Potting or looting of mound sites was probably common along the James in the late 1800s and early 1900s. Such activities continued into the early 1980s until the state laws were changed, protecting unmarked prehistoric cemeteries. Most mound groups are scarred with potholes from vandals and some mounds have been obliterated.

During the summer of 1998, in addition to archaeological inventory and testing, precision mapping was conducted at sites across Bureau of Reclamation-managed land surrounding the Jamestown Reservoir (Jackson 2000). Thirteen mound sites, two rock cairn sites, and five stone-lined depression sites were updated/documented (ibid.:Table 1.1).

Publications

It is critical for archaeologists to publish information gained from various investigations in addition to the technical reports (listed in above tables) that have limited distribution. The public support and understanding of the value of conducting these formal investigations is essential. As of 2021, we have added tables in each study unit of selected publications available to general audiences (Table 7.7).

Table 7.7: Selected Published References for the James River Study Unit.

Author(s)	Year	Reference
Baugh, T.G., and F. W. Nelson, Jr.	1988	Archaeological Obsidian Recovered from Selected North Dakota Sites and its Relationship in Changing Exchange Systems in the Plains. *Journal of the North Dakota Archaeological Association* 3:74-94.
Bozell, John R., Carl R. Falk, and Eileen Johnson	2011	Native American Use of Animals on the North American Great Plains. In *Subsistence Economies of Indigenous North American Societies: A* Handbook, edited by Bruce D. Smith, pp. 353-385. Smithsonian Institution, Washington, DC.
Chomko, S. A., and W. Raymond Wood	1973	Linear mounds in the Northeastern Plains. *Archaeology in Montana* 14(2):1-19.
Clark, F.	1984	Knife River Flint and Interregional Exchange. *Midcontinental Journal of Archaeology* 9:173-198.
Fox, Richard A., and John A. Williams	1982	The Pipestem Burial: An Archaic Interment from Southeastern North Dakota. *North American Archaeologist* 3(1):51-78.
Gregg, Michael L.	1988	A Fluted Axe from the James River Valley. *North Dakota Archaeological Association Newsletter* 6(1):6.
Gregg, Michael L.	1990	An Early Plains Woodland Structure in the Northeastern Plains. *Plains Anthropologist* 35:29-44.
Gregg, Michael L.	1994	Archaeological Complexes of the Northeastern Plains and Prairie-Woodland Border, A.D. 500-1500. In *Plains Indians, A.D. 500-1500*, edited by K. H. Schlesier, pp. 71-85. University of Oklahoma Press, Norman.
Gregg, Michael L., D.	1996	Archeology of the Northeastern Plains. In *Archeological and*

Author(s)	Year	Reference
Meyer, Paul R. Picha, and D. G. Stanley		Bioarcheological Resources of the Northern Plains, edited by G. C. Frison and R. C. Mainfort, pp. 77-90. *Research Series* No. 47. Arkansas Archeological Survey, Fayetteville.
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Paleo-Indian Period

Paleo remains are rare in the JRSU. A patinated KRF blade tool, of the style commonly made late in the Paleo period, was found during surface survey of an upland ridge on the valley rim south of LaMoure (Kordecki and Gregg 1986:31; Schneider 1982). On the edge of the uplands overlooking the town of Dickey, a Scottsbluff point and a large KRF biface preform were found by a collector in a tilled field (Gregg et al. 1987:20). An isolated KRF Hell Gap-type point was discovered on the edge of a plowed field near Kraft Slough in Sargent County (Toom et al. 1995). Further south, an Agate Basin point was found along the valley rim in Brown County, South Dakota (Keller and

Keller 1983:31). Gregg (et al. 1985:7) interprets the surface distribution as indication that big-game hunters were "in the study area and around the northwestern shore of Glacial Lake Dakota between 9000 BC and 6000 BC."

At 32FO21, a Late Paleo or Early Plains Archaic component was suggested based on the date 6410±70 RCYBY (Murray 2000: iii). A possible Paleo component was reported at Gabriel (32DI95) (Grohnke et al. 2008).

A mammoth site west of the James valley in Stutsman County was partially excavated by UND geologists in 1969 (Smorada 1969). The site was in a context estimated to have formed after deglaciation around 10,000 BC. Associated artifacts were not found by the geologist who worked a few days at the site. No archaeologist was involved with the project. A portion of the site remains intact for future study. This mammoth site as well as artifacts collected in the valley strongly indicates Paleoindians were present in the SU.

The lack of identified sites may be attributed to the selection of survey areas and the depth of buried deposits. Thus far, surveys have been restricted to areas that either were under water during the early Holocene or have a high rate of soil deposition. Gregg et al. (1987:20) suggests within the valley, sites of this period, as well as those of the subsequent Early Plains Archaic period, should be found on the surfaces of early Holocene James River terraces and deeply buried within alluvial fans, valley wall foot slopes, and perhaps even the floodplain. Floodplain sites of this period are probably below the water table (Picha and Gregg 1993). Paleo artifact finds will be most frequent in the uplands where extensive areas of land surface have witnessed minimal deposition of sediments or have been deflated over the past 8,000 years (Gregg et al. 1987:20).

Paleoenvironmental Modeling

What were the environmental conditions during the Paleo period in the SU and what resources were available? Any well-dated early Holocene sedimentary contexts encountered should be sampled for pollen to aid in understanding Early Holocene environments. Excavations should employ techniques that enable pollen, plant microfossil, and other floral and faunal recovery to allow for climatic and environmental reconstruction.

Cultural Chronology

Recorded as a site lead, an isolated KRF Hell Gap-type point was found on the edge of a plowed field Sargent County (Toom et al. 1995). Folsom, Hell Gap, Agate Basin, Scottsbluff, and Cody complex spear points have been observed in private collections (Gregg et al. 1985:5-7; Gregg et al. 1987:20). This indicates the Folsom complex (9000-8000 BC), Hell Gap-Agate Basin complex (8500-7500 BC), and Cody complex (8000-6500 BC) are represented in this SU. To what extent are these and other Paleo complexes represented in the JRSU?

At 32FO21, intact paleosols and cultural deposits date to the late Paleo/Early Plains Archaic and Plains Woodland periods. Samples of stratified paleosols, containing low amounts of cultural materials, returned radiocarbon dates of 6410±70 RCYBP and 4270±80 RCYBP (Murray 2000:iii).

Settlement Behavior

What was the Paleo settlement pattern in the valley? An interdisciplinary team of geomorphologists, geologists, and archaeologists could identify early Holocene landform evolution and human land use patterns. Excavation strategies should be geared toward determining settlement type. What is the range of variability that should be expected? What was the most favorable setting for residential base settlements in early Holocene times? What forms of natural or artificial structures were used for shelter? What were their mortuary practices?

Native Subsistence Practices

Direct evidence of Pleistocene megafauna in the JRSU has been reported. A mammoth was found in a playa setting in Stutsman County (Smorada 1969). The estimated date of the site is ca. 10,000 BC. Holocene megafauna bone deposits should be tested with an interdisciplinary research team.

What floral and faunal resources were available and how did the availability vary through the Paleo period? Were there regional differences in Paleo subsistence practices within the Northern Plains at different times during the Early Holocene as the result of small-scale environmental changes? Flotation recovery procedures should be applied to all sediments excavated from Paleo sites.

How does their skeletal biology, relative health and nutrition, paleopathologies, and demographics compare with Paleo peoples in other ecological zones/contexts and with more recent groups?

Technologies

Most of the artifacts attributable to the Paleo period are spear points, although a blade tool and biface preform have been reported (Gregg et al. 1987:20; Kordecki and Gregg 1986:31; Schneider 1982). Were Paleo peoples involved in the same kind of raw materials procurement system as later peoples? Was their technology similar to other Paleo peoples? How do they compare to Archaic technologies? Research should address production and maintenance of lanceolate points, bone, antler, ivory, and shell technologies of Paleo peoples.

Artifact Styles

Folsom, Agate Basin, Hell Gap, Scottsbluff, and Cody complex points have been surface collected. How do the Paleo point type styles compare to those in other parts of

North Dakota? A blade tool and biface preform also were surface collected. What other artifacts are represented and how do the styles compare to surrounding areas?

Regional Interaction

What evidence of regional interaction is represented? How does this compare with other SU? What is the range of lithic raw material types likely to occur in the JRSU? Are there other indicators for regional interaction besides patterns of lithic raw material use and artifact styles that can be identified in the archaeological record for the Paleo period?

Historic Preservation Goals, Priorities, and Strategies

Because of the lack of information about Paleo tradition in the JRSU, any property with potential to yield information about this historic context would be eligible for nomination to the NRHP, regardless of integrity.

A few historic preservation strategies that have been identified are:

1. Conduct additional excavations at the mammoth site west of the James River valley in Stutsman County using an interdisciplinary research team.

2. Consult a geomorphologist who may identify areas where early Holocene landform outcrops are exposed and conduct intensive archaeological inventories of those areas.

3. Locate evidence of Paleo occupation of the valley by examining privately owned artifact collections in the area and locating the origins of any spear points in collections. Complete inventory forms for all identified properties.

4. Since little is known about the late Pleistocene and early Holocene, testing/ excavation should be conducted to the extent necessary in determining settlement type using an interdisciplinary research team. Methods utilized should enable recovery of floral and faunal remains as well as artifacts. Field strategies should include techniques that will generate information about climate and vegetation during the terminal Pleistocene-Early Holocene.

Plains Archaic Period

Early, Middle, and Late Plains Archaic periods are identified for this SU. Characteristic dart points such as Simonsen, Oxbow, McKean, Duncan, Hanna, and Pelican Lake are hallmarks of this period. Archaic projectile points are relatively common in local collections.

Evidence of Early Plains Archaic period occupations include Simonsen and Oxbow points from private collections. Oxbow points are the oldest points that occur commonly. Cultural affiliations with the Logan Creek (5500-3300 BC) and Oxbow (3300-2500 BC) complexes are indicated by the presence of Simonsen and Oxbow points (cf. Gregg 1985:101-107).

Site 32FO21 is a multi-component located east of Kelly Creek on two terraces overlooking the Kelly Creek floodplain (Murray 2000:iii). Intact paleosols and cultural deposits date the site to the late Paleo/Early Plains Archaic and Middle Plains Archaic periods. Samples of stratified paleosols, both containing low amounts of cultural materials, returned radiocarbon dates of 6410±70 RCYBP and 4270±80 RCYBP (ibid.).

One Oxbow point was collected from the surface of a multiple component occupation site (32SN207), although dated features in that site were related to later components. Oxbow projectile points were recovered during archaeological excavation in Component I levels in the Jamestown Mounds (32SN22); however, Component I radiocarbon dates and diagnostic artifacts indicate that the points predate the mounds. It is suggested that either the mounds were constructed on top of a sparse Oxbow cultural material scatter, or the points were introduced to the site along with mound fill borrowed from the area of an earlier site, such as 32SN207 (Snortland-Coles 1985:5.85).

Sites of the Middle and Late Plains Archaic period are postulated to be buried in the floodplain, on the surfaces of terraces, near the surface of alluvial fans and valley wall foot slopes, and in the uplands (Gregg et al. 1987:21; Schneider 1982:129). At Hendrickson II (32SN402) a Duncan point was surface collected from the alluvial fan (Gregg et al. 1985:79). A Hanna point was surface collected on the alluvial fan and foot slope terrain at Greenwood Village (32SN58) (Gregg et al. 1987:85). Duncan and Hanna points have also been seen in private collections. These points indicate the presence of the Duncan complex (2000-1500 BC) and Hanna complex (1500-1000 BC).

At the Mayer site (32SN119) a possible Middle Plains Archaic occupation surface was found 1.8 meters below ground surface (Gregg et al. 1986:113). Fire-cracked rock and a Swan River chert flake were found in a paleosol.

An Archaic burial site (32SN102) was exposed in an eroding cutbank on the east side of the Pipestem Reservoir (Fox and Pearson 1978). Skeletal remains from the site include a 2–6-year-old infant, an 18–21-year-old female, a 19–25-year-old female, and a 40–50-year-old male. All the individuals apparently were buried in a single shallow grave that subsequently was covered by slopewash and finally exposed by erosion. The only individual recovered in situ (19-25-year-old female) was buried in an extended prone position. Artifacts were not recovered, but a radiocarbon date from a bone sample indicates that death occurred 1592 BC±70 (Fox and Pearson 1978:37).

The earliest period commonly represented by sites in the valley bottom is from the Late Plains Archaic period. Pelican Lake points have been collected from several sites on terraces, valley wall foot slopes, and alluvial fans during surveys (Kordecki and Gregg

1986). Such points have frequently been noted in private collections. A Parkdale Eared point (cf. MacNeish 1958) was found on an alluvial fan at 32LM58 (Kordecki and Gregg 1986). This type of point suggests affiliation with the Late Archaic Larter focus of southern Manitoba.

The Naze site produced a date of 3405±85 RCYBP (UGA-1399) on charcoal from a paleosol representing a previously stable floodplain surface now buried beneath 2.0-2.5 m of alluvium (Good, Kinney et al. 1977:83). The calibrated date range is 1778-1620 BC. A light density artifact deposit is associated with this buried soil in the area of the 1986 block excavation (Gregg 1987a).

Testing at Akata (32SN121) also indicated two Late Plains Archaic settlement episodes (Gregg et al. 1987:226-257). Two bone samples per buried topsoil were dated to 2721±31 RCYBP (SMU-1988) and 2566±30 RCYBP (Picha and Gregg 1993:209). The calibrated date range for these samples are 984-828 BC and 820-659 BC, respectively. Flaking debris, fire-cracked rock, and exotic snail shell, bison and rabbit bone, and other burned, spirally fractured, and butchered bone fragments were recovered at 180-220 cm surface depth (sd) (Gregg et al. 1987:257).

An aceramic component with small corner-notched points was encountered during test excavation at the Nelson site (32SN111) with charcoal dating 2380±70 RCYBP (Beta-13648) and bone dating 2923±40 RCYBP (SMU-1802) (Gregg et al. 1986:130-164). The calibrated date range for Beta-13648 is 755-698 BC and 537-392 BC. The calibrated date range for SMU-1802 is 1253-1245 BC and 1216-1044 BC. This sample was described as representing a Late Plains Archaic residential base or field camp with intact cultural deposits at 95 cm below ground surface. In addition to the points, a grooved clinker, abrader, two heavy duty cutting tools, two hammerstones, a KRF scraper, six KRF retouched flake tools, KRF punch/wedge/chisel, basalt mano and metate, flakes, bone tools, and fauna were recovered. The assemblage indicated hunting, stone tool maintenance, butchering and meat processing, bone processing, bone and antler working, and possibly plant food-processing activities (Gregg et al. 1987:163-164). Subsequent sampling of this component by Toom and Jackson (2003) recovered Early Woodland potsherds and the cultural affiliation of the component was revised to Early Woodland.

At the Stroh site (32LM236) at 270-290 cm sd, there is an artifact deposit dating to the Late Plains Archaic period (Gregg et al. 1986:186). Bison bone was dated to 3080±70 RCYBP (Beta-13649) (Gregg et al. 1986:199). Although no temporally diagnostic artifacts were found during excavations, the zone did produce a KRF blade flake tool, burned and unburned bone, a few pieces of high-quality chert flaking debris, and fire-cracked rock (Gregg et al. 1986:222). Corner-notched dart points indicative of Late Plains Archaic site use were recovered from the surface (Gregg et al. 1986:215).

At the Walde site (32LM29) a large corner-notched dart point and a dart preform were surface collected on the alluvial fan. This suggests a Late Plains Archaic component (Gregg et al. 1987:410). At both Hendrickson II (32SN402) and Naze (32SN246), Late

Plains Archaic components are indicated (Gregg 1987; Gregg et al. 1985:67). Undesignated Archaic components are reported at Martin II (32LM401) (Gregg et al. 1986).

Based on stratigraphic superposition and association with buried topsoils, a posited Early Plains Woodland or Late Plains Archaic component is suggested at 170-190 cm sd at the Peterson site (32LM22). Also, a Middle or Late Plains Archaic component is suggested for the buried surface at 190-220 cm sd (Gregg et al. 1987:477).

Late Plains Archaic or Early Plains Woodland deposits are posited for Ptega (32LM15) and Isan (32SN120) (Gregg et al. 1987). At 32SN120, the suggested Late Plains Archaic/Early Plains Woodland is based on surface collected projectile points. At Ptega, the deposits were 160-180 cm sd.

Paleoenvironment Modeling

What were the environmental conditions during the Archaic tradition in the JRSU and what resources were available? During the pre- and post-Altithermal, is there a difference in Archaic adaptation lifeways? Environmental reconstruction of Holocene conditions in valley bottomlands, alluvial/colluvial fans, and glaciated plains (pond settings) should be undertaken.

Cultural Chronology

Early, Middle, and Late Archaic components have been identified in the JRSU. The presence of Simonsen and Oxbow points indicates cultural affiliations with the Logan Creek (5500-3300 BC) and Oxbow (3300-2500 BC) complexes (Gregg et al. 1985:101-107).

At least six components have been identified in a cutbank profile at Fairbanks (32SN174), on the Jamestown Reservoir (Jackson 2003:5). Through radiocarbon analysis and recovery of diagnostic artifacts, two of the components have been dated to the Early Plains Archaic period (Nycz and Plock 2016).

Based on projectile point types, a Duncan complex (2000-1500 BC) component is present at Hendrickson II (32SN402) and a Hanna complex (1500-1000 BC) component is present at Greenwood Village (32SN58). Also, an undesignated Middle Archaic component is posited at 32SN119. A possible Middle or Late Archaic burial was salvaged at 32SN102 which dated to 1592 BC±70.

Several sites that have been tested have posited Late Archaic components. In fact, several sites have been dated, including Akata (32SN121), Nelson (32SN111), Stroh (32LM236), and Naze (32SN246). But as evidenced at the Nelson site, some sampled components that test positive for Late Archaic may be from aceramic portions of Early Woodland artifact deposits.

Late Plains Archaic or Early Plains Woodland components are suggested at sites 32LM22, 32LM15, 32SN59, and 32SN120. Additional work at Archaic and Woodland sites are needed to develop a database that will enhance our understanding of the differences and similarities between the time periods.

Did the Archaic tradition evolve out of the Paleo tradition or did Archaic peoples migrate into the area? How does the Archaic tradition relate to the Plains Woodland tradition? Were James River Archaic peoples physically different from James River Woodland peoples?

Settlement Behavior

What were the Archaic settlement patterns in the JRSU? What types of structures were constructed and occupied by James River Archaic peoples?

All excavation projects should attempt to identify the functional settlement types represented by remains from sampled components. Where should Archaic base camp deposits be anticipated, and what types of remains evince base camp activities? Attempts need to be made in correlating Archaic functional site types with landforms to begin modeling settlement behavior.

Native Subsistence Practices

The Nelson site (32SN111) provided the first evidence of subsistence practices represented by a component with a Late Archaic temporal affiliation in the JRSU. However, the subsequent discovery of potsherds in expanded excavations indicate an Early Woodland cultural affiliation. This component may date near the cultural and temporal boundaries between the Late Archaic and Early Woodland in the JRSU. The Nelson site component therefore has utility for modeling subsistence practices as well as other aspects of lifeways during both the Late Archaic and Early Woodland periods. Models are built to be revised and refined as new findings are made.

Late Archaic subsistence practices were also evident at Akata (32SN121) where bison, large ungulate, and rabbit were recovered from test excavations. The elements indicated the bison or large ungulates were killed in the site vicinity and that complete or near complete carcasses were processed at the site (Gregg et al. 1987:254).

What were the subsistence strategies of the Archaic peoples; what resources were exploited, what was available, and did it vary from early to late periods? Were there actually significant differences between Middle and Late Archaic subsistence practices? Systematic use of fine-screen recovery techniques will be necessary to see changes in Plains Archaic diet and subsistence. Standard flotation sampling of feature and non-feature matrix during excavation should be practiced.

Technologies

How do Archaic technologies compare to earlier and later technologies? Stone, bone, shell, fiber, and other technologies can only be analyzed when discrete Archaic samples are recovered. What were Archaic mortuary practices? Were James River Archaic peoples physically different from James River Woodland peoples? What technologies were applied to build structures through the different Archaic periods and complexes? Structural remains are most likely to be best preserved in deeply buried alluvial and colluvial depositional contexts.

Artifact Styles

Late Archaic sites are difficult to distinguish from Early or Middle Woodland sites because assemblages are similar and time periods overlap. Are there diagnostic attributes of core or flake morphology which can be used to identify Archaic periods or complexes in lieu of diagnostic points? Definitions should be formulated based on large samples from contexts with multiple unproblematic radiocarbon dates.

Regional Interaction

Nonlocal lithic materials are the most prevalent indicator of regional interaction. At Akata (32SN121) and Nelson (32SN111), the flaking debris samples were made up primarily of KRF with a low percentage of cortical specimens. Although KRF occurs naturally in glacial till, the quantity of KRF and low percentage of cortical frequency indicates acquisition was from the primary source area in western North Dakota (Gregg et al. 1987:244).

At Akata (32SN121), a large snail shell was recovered from Late Archaic deposits dating 770 BC and 875 BC (Gregg et al. 1987:255). The large snail shell was identified as *Lioplacodes nebrascensis*, with the nearest source in the old Fort Union Formation sediments in Emmons County 90 miles to the west. A fossilized shell was also recovered at the Nelson site (32SN111). Gregg et al. (1986:162) state "Marine and fossil shells have been recorded in other late Archaic contexts in both the Northern Plains and the Eastern Woodlands (Brink and Baldwin 1985; Brose 1979; Winters 1968)."

In other SU there is evidence of less interaction occurring during the Archaic period as compared to the Paleo and Woodland periods. Is this the case of peoples living in the JRSU? Based on nonlocal material source areas, what is the evidence for changes in directionality of interaction through the Archaic periods? Sourcing of materials should be undertaken when samples (e.g., obsidian, copper, etc.) are recovered from discrete components of known age.

Historic Preservation Goals, Priorities, and Strategies

Thus far, the only feature types identified in the study area are isolated locations of projectile points, cultural material scatters, and one burial site. Anticipated feature

types based upon inventories of other study areas include hearths, jump sites, rock cairns, rock alignments, stone circles, and pits (storage and refuse).

Any property with the potential to yield data concerning this tradition would be eligible for nomination, given sufficient integrity.

Most of the work in the James River drainage system has been directed toward inventory of the river valley and adjacent terraces. Little area outside of the valley has been intensively surveyed. Isolated Archaic projectile points are common and buried occupation sites been identified using bank profiles and deep test units in the profiles (Gregg et al. 1987; Jackson 2003; Toom 2014).

Below is a list of a few historic preservation priorities/strategies:

1. Consult a geomorphologist to identify Archaic tradition land surfaces throughout the study area. Paleoclimatic reconstruction and geomorphological studies of mid-Holocene contexts should be central to investigations of Archaic cultural deposits.

2. Conduct intensive inventories of uplands where Archaic surfaces are exposed.

3. Gregg's (et al. 1985), Schneider's (1982), Toom's (2014), and Jackson's (2001) investigations of the James River valley indicate that Archaic sites located on the floodplain are deeply buried. To locate sites in the river bottoms, conduct deep testing to find buried Archaic paleosols. Identification of Plains Archaic components in the SU remains a top priority because so few are known. Establish a cultural chronology based on chronometrically dated components. Single component deposits need to be identified and sampled to learn more about subsistence, technologies, and artifact styles.

4. Document private collections and locate additional Archaic sites based upon site leads from private collectors. Complete NDCRS site forms for all identified properties and collections.

5. Buried components at several James River floodplain sites appear to represent occupations that occurred during the Archaic-Woodland cultural-temporal transition in this region. This may be the sort of transition that Reeves (1983) hypothesized for the origins of the Besant complex somewhere east of the Missouri River in the eastern Dakotas. This is an important topic in Plains prehistory.

Plains Woodland Period

Excavations at the Naze site (32SN246) provided the first evidence for an Early Plains Woodland occupation in the state (Gregg 1987). A burned structure, dating to the 550-410 BC period, was uncovered 75-80 cm below ground surface. Pot sherds recovered indicate vessels were technologically and stylistically similar to Midwestern "Black Sand Tradition" ceramics. Projectile points are small corner-notched forms and a large Besant side-notched form. Two sizes of points are posited to represent the preferred use of lightweight fast darts for medium and long-range shots and slower high impact darts for killing big game at close range (Gregg 1987:265). Charred grape, chenopod, and possible marsh elder seeds were recovered inside the house. The marsh elder may indicate that indigenous seedy plants were tended or encouraged (incipient gardening). The Besant and Sonota complexes are proposed to have developed in the Northeastern Plains from the sort of Early Plains Woodland cultural base represented at the Naze site, then spread westward to the northern parts of the Middle Missouri subarea and into the Northwestern Plains (Gregg 1987). Additional archaeological investigations were conducted at the Naze site by the University of North Dakota in 1994 (Toom 2007).

Akata (32SN121) appears to be the second site in the study area to produce Early Plains Woodland ceramics from a buried artifact deposit. The deposits were present 60-150 cm below the present ground surface. Thick sherds with coarser temper from lower levels indicate an Early Plains Woodland component. There are no clear boundaries or bimodal distribution to enable clear separation of Early and Middle Woodland deposits at the tested location. Such separation might be found elsewhere at the site (Gregg et al. 1987:226-259). Additional archaeological investigations were conducted at the Akata site by the University of North Dakota in 1996 (Toom 2014).

Early Plains Woodland or Late Plains Archaic deposits are posited for Ptega (32LM15) and Isan (32SN120) (Gregg et al. 1987). At 32SN120, the suggested Late Plains Archaic/Early Plains Woodland is based on surface collected projectile points. At Ptega, the deposits were 160-180 cm sd. Some sampled components that tested positive for Late Plains Archaic may be from aceramic portions of Early Plains Woodland artifact deposits, such as the case at the Nelson site (32SN111).

Schneider (1982a:129) noted that an unexpectedly small number of Middle Plains Woodland sites were recorded along the upper James River as of the late 1970s. With mound building so well represented on the valley rim, more Middle Plains Woodland occupation sites were anticipated in nearby valley bottom settings. The apparent paucity of sites from this period is accounted for by their relatively deep burial. Middle Plains Woodland cultural zones were encountered from 60 to 100 cm sd at the Naze site, from 30 to 120 cm sd at the Beeber site, and from 60 to 90 cm sd at the Martin site. All three of these sites are in proximity to valley rim mound groups. Middle Plains Woodland settlements have been found in the bottoms near many valley rim conical mounds. Sites of this age are generally buried below the plow zone in most floodplain settings and can ordinarily be found only in river cutbanks or by subsurface probing or excavation.

Middle Plains Woodland components were found in several multiple component occupation sites in the JRSU. Besant projectile points were found on the surface of 32SN207. The large side-notched projectile points indicate an affiliation with the Sonota complex. Also, at 32SN207, St. Croix Stamped pottery was identified indicating a possible association with the Arvilla complex (Snortland-Coles 1985). The Naze site (32SN246) has three radiocarbon dates firmly dating the Sonota component to 40 BC-AD 70. Based upon floral and faunal remains recovered from the Naze site, occupants of the sites exploited a diversity of species (Gregg 1987; Schneider 1982a:117). The third occupation site, Beeber (32LM235), is not dated but appears to be slightly later than 32SN207. The Beeber component was classified as Laurel (Schneider 1982). Middle Plains Woodland components have also been documented through testing at 32LM22, 32LM29, 32LM236, 32LM401, 32LM239, 32SN59, 32SN107, 32SN120, 32SN121, and 32DI95.

Wheeler excavated Kropp Mound (32SN8) and Birks Mound (32SN28), two possible Middle Plains Woodland mound sites. The Kropp site is composed of a large conical mound with three linear mounds extending toward the southeast, southwest, and northwest. The latter two linear mounds terminate in small conical mounds. Excavation of the Great Mound resulted in the recovery of approximately 20 individuals buried in at least three levels in the mound. Bundle burials were found on the original ground surface, mid-mound, and intrusive into the top of the mound. Apparently, no artifacts were found with the lower-level graves (Wheeler 1953). Wheeler suggested that they were constructed during the Late Plains Woodland period based on a single radiocarbon date on an unprovenienced, unspecified sample (Neuman 1967:480). However, these mounds have multiple components including Middle Plains Woodland. The stratigraphy of Kropp Mound (32SN8) is described by Wheeler (1952:R58) as “One pit was dug into Stage I mound; and three pits were dug into the mound from the surface, i.e., after the completion of Strata II (or III).”

Furthermore, a Hanna dart point dating to “the Early stage of the Middle Prehistoric period in the Northern Plains” (Wheeler n.d.:44) was recovered from the Great Mound of 32SN28. The projectile point is interpreted as being an “heirloom” piece that had been curated and deposited later.

A Middle Plains Woodland component is also probably represented at Birks Mound (32SN28). The Birks site consists of a complex of 21 conical mounds on a bluff bounded on one side by the James River and on another by an ephemeral drainage. Excavations in the center of Mound 1 exposed five bundle burials. One of the burials was found in association with scattered bison bones in a central sub-rectangular subfloor pit, and the others were scattered at four different depths below the top of the mound (Wheeler 1953:14-15). One of the burials in the mound fill was associated with five bison crania, articulated bison ribs, and boulders. In general, preservation was poor, and the only artifacts recovered were 10 flakes and one body sherd (Wheeler and Woolworth 1952). There was seldom any screening of hand excavated site matrix in those days. One can only imagine the artifact content of the feature matrix if it had been processed by fine-mesh waterscreening with sample flotation that became part of routine fieldwork

methods in the 1970s. Feature 4 of 32SN28 is described as "The presence of bison skulls as well as other bison bones (including articulated ribs) in this mound, as well as in the Kropp Mound (32SN8) implies, I am certain, the existence of a bison cult of some kind" (Wheeler and Woolworth 1952:R13). From the description of bison remains, at least one component of the sites appears to relate to the Sonota complex.

Middle Plains Woodland components were identified in three mounds in the Jamestown Mounds site (32SN22). Excavation revealed a circular to oval ossuary located below the floor in the center of each of the mounds. The ossuaries were surrounded by small burial pits holding one to three primary, flexed interments. The features were constructed ca. AD 30-190 and later (ca. AD 380-670). Two of the ossuaries were reopened to add more interments (Snortland-Coles 1985:4.26). Each ossuary contained up to 28 individuals. Most were disarticulated primary interments, and some appeared to have been partially cremated. One ossuary was lined with a large mammal hide (probably bison) and all held charred fragments of oak logs. Artifacts included thick cord roughened ceramics; Besant projectile points; a copper crescent and tinkler; bison remains; ground stone; *Leptoxis* sp. *Anculosa*, *Marginella*, and *Columella* shell beads, local mussel shell washer-shaped disks, trapezoidal pendants, and gorgets; an antler tube; textile fragments, bifaces, and unifaces. The ossuaries and small burial pits were covered with a layer of mound fill (Snortland-Coles 1985).

Late Woodland components in the James River valley have been identified at Akata (32SNl21), Naze (32SN246), Kirschenmann III (32SN247), Peterson (32LM22), Chappell (32LM240), Beeber (32LM235), and 32SN207. Ceramics recovered from the sites resemble St. Croix, Blackduck, Brainerd, and Sandy Lake wares. In addition to the characteristic Late Woodland materials, a vessel similar to Valley Cord Roughened (cf. Syms 1977:88) was found in association with Late Woodland projectile points. In Manitoba, this ware has been considered Middle Woodland due to associations with dart points, but Schneider groups the James River vessel with Late Woodland and indicates that this ware may have appeared later in North Dakota than in Manitoba (Schneider 1982a:119). The lithic assemblages from the sites are dominated by KRF and include side-notched, corner-notched, and triangular projectile points. Based upon the floral and faunal record, it is interpreted that the inhabitants of these sites exploited a diversity of resources (Schneider 1982a:119).

At Kirschenmann III, three components, dated by radiocarbon analysis, have been identified, including: (1) Late Woodland-B (ca. AD 890); (2) Late Woodland-A (ca. AD 1110); and (3) Early Plains Village (ca. AD 1290) (Toom 2003:iii).

Late Woodland components have also been identified at Akata (32SN121) including a component identified as Sandy Lake (Toom 2014).

Some of the mounds on the James River may date to the Late Woodland period, but few have been tested. Only three mound sites in the drainage have been excavated by professional archaeologists. Two of those sites, Kropp (32SN8) and Birks (32SN28), were discussed previously as possibly containing a Middle Woodland component;

however, at least one unspecified component in the Great Mound of the Kropp site had a radiocarbon date of AD 1000±85 (Neuman 1967:480). The intrusive burials are associated with copper bangles, bison crania, and a serrated side-notched projectile point. Cord roughened sherds, simple stamped sherds, scrapers, flakes, worked and unworked mussel shell, and projectile points were recovered by screening mound fill (Wheeler 1953:11-13).

Component III in the Jamestown Mounds (32SN22) contained small burial pits that intruded into lower mound levels and dated to ca. AD 800-990 (Snortland-Coles 1985:4.26-4.27). Most interments were secondary and appeared to have been exposed on scaffolds or in trees prior to burial. Fewer exotic artifacts were found in Late Plains Woodland components of the mounds as compared to the earlier Middle Plains Woodland levels. A Sandy Lake mortuary vessel, bifaces, unifaces, an ochre-coated limestone slab, a beaver incisor, horn trapezoidal gorget, and *columella* tubes and beads comprised the artifact assemblage. In addition, a small side-notched projectile point was found interred in a sitting flexed position beside a 35–45-year-old female who may have had tuberculosis (Snortland-Coles 1985:4.42 Williams 1985). Intrusive into Component III levels were three undated Component IV burial pits holding a primary infant and secondary adult interments. Artifacts were sparse in adult burial pits and included a bison rib and a uniface. The infant was buried with *columella* beads and tubes (Snortland-Coles 1985:4.19-4.56).

Many of the mounds in the study area are linear in plan view. Linear mounds were apparently constructed in the Northeastern Plains and Middle Missouri subareas beginning as early as AD 500 or 600 (Chomko and Wood 1973:15). In the lower James River valley in South Dakota, mounds near Initial Middle Missouri village sites appear to have been used during the period AD 1000-1250 (Alex 1981). The continuity of mound burial mortuary ceremonialism, and in the case of Mound B at the Jamestown Mounds site, the repeated use of one mound during the Middle Plains Woodland, Late Plains Woodland, and Early Plains Village periods calls attention to potential for other aspects of cultural continuity during this thousand-year period.

Paleoenvironmental Modeling

The Scandic climatic episode of AD 400-750 is thought to have been generally arid. Windblown sediments should have capped Early and Middle Woodland sites in the bottomlands and on the south and east slopes of hills and ridges in the uplands. Attempts should be made to identify sedimentary units of this age capped or underlain by topsoils containing more recent or earlier Woodland cultural deposits.

The climatic conditions of the Sub-Atlantic climatic episode of 1000 BC-AD 400 are thought to have been generally more mesic than the today. Under such conditions, especially around 2,000 years ago, thick rich topsoils developed in many parts of the Northeastern Plains, and biomass should have increased. It is hypothesized that increased biomass and thus increased carrying capacity facilitated Middle Woodland population increase and cultural florescence. There was an early Middle Woodland and a later Plains

Village florescence in the Northern Plains just as there was in the Midwest. There is a need to specifically document the hypothesized mesic conditions of the Sub-Atlantic in the study area. The best prospects for this are at buried Middle Woodland sites associated with paleosols in alluvial and colluvial settings.

It has been posited by M. Gregg that the Sonota cultural fluorescence was made possible by a protracted period within the Sub-Atlantic climatic episode during which mesic conditions persisted throughout the Northern Plains, and overall biotic resource potential was maintained at an abnormally high level. This period is marked by a thick, well-developed paleosol in floodplain stratigraphic sequences in the James River valley of eastern North Dakota (Gregg and Swenson 1987:68).

What were the environmental conditions during the Woodland period in the JRSU and what resources were available? Are Sonota components often found contained within buried topsoils indicating mesic conditions and high biotic resource potential during Middle Woodland times?

Cultural Chronology

Early Plains Woodland components have been identified in the JRSU (Naze, Akata, and Nelson) but have not been assigned to any more specific named archaeological unit. Probably, some identified Middle Woodland or Late Archaic components may in fact be Early Woodland, as is the case with the Nelson site (32SN111) (Toom and Jackson 2003). Sites with Early Plains Woodland components have been identified in the Sheyenne River SU and possibly along the lower Red River, north of Winnipeg.

Several Middle Plains Woodland sites have been identified; most have been assigned to the Sonota complex. Ceramics like Laurel have been identified at the Beeber site (32LM235) (Schneider 1982) and Peterson site (32LM22) (Gregg et al. 1987:448-449). Terminal Middle Woodland St. Croix pottery has been recognized at 32SN22 (Snortland-Coles 1985).

Late Woodland components have been recognized at several sites. Sandy Lake, Blackduck, Brainerd, and Arvilla ceramics have been identified. These same ceramics have been identified in the Sheyenne River and Red River SU. These ceramic wares are the most prominent artifact types of the larger artifact and feature complexes used to define named archaeological units such as complexes and phases. It remains to be determined if the Sandy Lake, Blackduck, Brainerd, and Arvilla complexes are represented at the sites where the ceramics have been identified. Alternatively, the presence of these ceramics may represent some form of exchange between cultural groups whose overall archaeological remains are attributable to different complexes.

Did the Woodland tradition evolve out of the Archaic tradition or did the Woodland peoples migrate into the area? How does the Woodland tradition relate to the Archaic tradition? Were Woodland peoples ancestral to Archaic peoples or did the two

traditions coexist for a time and represent two or more different cultures? Were James River Woodland peoples physically different from James River Archaic and Plains Village peoples?

Settlement Behavior

Functional site types identified for this SU are mortuary sites, field camps, and residential bases. Most of the mortuary sites are in the uplands in mounds and are assigned to the Sonota complex. Based on the work at 32SN22, mounds are now recognized as being repeatedly used from the Middle Woodland to Plains Village period (Snortland 1985).

Excavations at the Naze site (32SN246) documented the first solid evidence for an Early Plains Woodland occupation in the state (Gregg 1987a). There, a burned lodge dating to the 550-410 BC period was unearthed. Other sites (Akata and Nelson) have since been identified as having Early Plains Woodland components.

The Sonota complex has been identified in residential settlements and burial mounds. The range of Sonota and other Middle Woodland complex settlement types needs to be identified. The same is true for Early and Late Plains Woodland groups.

Land surfaces that existed during the Woodland periods need to be identified throughout the study area. What were the Woodland settlement patterns? Residential bases, special purpose mortuary sites, and temporary campsites should be present near mound sites (cf. Gregg 1987c). Plains Woodland sites need to be inventoried and settlement types appraised and reported.

Native Subsistence Practices

At the Naze site (32SN246), charred grape, chenopod, and marsh elder seeds were found together inside the Early Woodland house. They are interpreted as food remains with the marsh elder possibly indicating the indigenous seedy plants were tended or encouraged (incipient gardening). Middle Plains Woodland inhabitants of the Naze site were exploiting native wild resources, such as acorns, plums, and chokecherries (Gregg 1987). At 32SN121 wild rose was recovered from the Middle Plains Woodland component (Gregg et al. 1987).

Cultural deposits at Kirschenmann III suggest that throughout prehistory the site functioned as a residential base camp of hunter-gatherers, with an emphasis on bison hunting during the Late Woodland period and a shift to a more sedentary lifeway during the Early Plains Village period (Toom 2003:15.1). The appearance of evidence for "low-intensity, maize-based horticulture" at the site indicate the transition (ibid.:15.1).

What were the subsistence strategies of the Woodland peoples; what resources were exploited? What was the flora and fauna resource potential of the JRSU during Early, Middle, and Late Woodland periods? What evidence is there for the intensified use

of indigenous seedy plants and grasses for food during the Plains Woodland period? The full role of plant resources in the diet of these peoples remains to be demonstrated. When did corn and other domesticated garden crops begin to be grown regularly in the JRSU? When Woodland components are excavated, it should be a top priority to attempt to identify floral remains from the deposits that may relate to subsistence practices. Fine-screen recovery to collect botanical remains provides direct evidence of Middle Plains Woodland subsistence in the SU. Future analyses of organic residues recovered from ceramics will enhance our understanding of Plains Woodland dietary patterns. Were there significant differences in the roles of plant/vegetal foods in the diets of Woodland groups in the JRSU compared with the diet of Woodland groups in other SU?

Technologies

The earliest ceramic vessel production and use presently known in the Northern Plains occurred during the Early Plains Woodland period. The ceramic vessels found at Naze are technologically and stylistically akin to Midwestern "Black Sand Tradition" ceramics (Gregg 1987). Do the methods of constructing vessels change through time? Are there any similarities between the Plains Village and Late Woodland ceramics from JRSU sites to Hidatsa or Mandan ceramics? What technological attributes can be used to differentiate Woodland ceramics from Plains Village ceramics at high levels of probability? Michlovic and Swenson (1998) and Toom (2003) have addressed some of these questions. How do Woodland technologies compare to earlier and later technologies? What were Woodland mortuary practices?

The occurrence of substantial quantities of fire-cracked rocks at several investigated Sonota sites suggests a long-term reliance of hot rocks for heat transfer. Stone boiling and baking with hot rocks were associated with food production at temporary camps and base camps. What evidence is there of this in the JRSU? The Middle Plains Woodland living surface at the Naze site and at campsites such as 32SN207 was littered with large chunks of fire-cracked rock (Gregg 1987).

Artifact Styles

Some Late Plains Woodland sites are difficult to distinguish from early Plains Village sites because both ceramics and lithic assemblages are similar and time periods overlap. What are distinguishing variables? What are the sources of stylistic influence seen in Woodland artifact assemblages? As with the Late Archaic-Early Woodland transition, the stratified floodplain sites in this SU present the unusual opportunity to examine the Late Woodland-early Plains Village transition.

Late Plains Woodland peoples are thought to have been the forebears of Plains Village culture in the region. Are there material traits or artifact styles distinctive to proto-Mandan and proto-Hidatsa groups in the study area?

Regional Interaction

During the Middle Plains Woodland period (100 BC-AD 600) there is evidence of long-distance regional interaction and exchange on the Northern Plains. Picha (1990) discusses evidence of the interregional Hopewell Interaction Sphere (HIS) along the James River valley. The paucity of HIS items in nonmortuary versus mortuary contexts is postulated as being related to excavation and recovery methods. Without fine-screen recovery, many items and even classes of artifacts go undetected using one quarter-inch mesh (Picha 1990:6).

At the Naze site (32SN246), the Middle Woodland component had obsidian from the Rocky Mountains, and copper from the Upper Lakes. At the Jamestown Mounds (32SN22), exotic items included copper and hematite from the Upper Lakes, snails from the Ohio Valley, and marine shell from the Gulf Coast.

What evidence of regional interaction is there in the JRSU? Are obsidian artifacts more likely to represent Middle Plains Woodland occupations than occupations of any other cultural/temporal affiliation when they are found at campsites in the SU?

Historic Preservation Goals, Priorities, and Strategies

Feature types identified in this SU are cultural material scatters, earthworks, graves, hearths, mounds, stone circles, rock cairns, and pits (storage and refuse). Additional anticipated property types based upon inventories of other study areas include jumps and lithic procurement areas.

Any property with the potential to yield data concerning this tradition would be eligible for nomination for listing in the NRHP, given sufficient integrity.

Testing in the valley bottoms indicate Woodland sites are typically buried 50 cm to 2 m below present ground surface. The first Early Woodland component in North Dakota was identified at the Naze site after block excavations (Gregg 1987).

Several priorities concerning this SU for the Woodland period have been identified:

1. Consult a geomorphologist to identify Woodland age landforms throughout the study area.

2. Conduct intensive inventories of uplands. Conduct intensive inventories of all landforms adjacent to permanent water (e.g., James, Maple, Cottonwood, Bone Hill Creek, Beaver Creek, Pipestem).

3. Woodland sites located on the floodplain are deeply buried. To locate sites in the river bottoms, conduct deep testing to find buried Woodland age paleosols.

4. Document private collections and locate additional Woodland sites based upon site leads from private collectors. Complete NDCRS site forms for all identified properties and collections.

5. Map (using precision equipment) all existing earthworks that have not previously been mapped within the last 10-20 years.

6. Use available LIDAR resources to identify sites such as mounds and other earthworks.

Plains Village Period

Several Plains village sites have been recorded in the JRSU. Early Plains Village origins in the Middle Missouri subarea have been postulated as a local development among indigenous peoples by some researchers and a migration of peoples from the east by others (Toom 1992). Lehmer (1971) and Wood (1967) suggest Plains Villagers entered North Dakota from the east. Toom (1992) presents a case for the migration of peoples from the east due to three interrelated factors (eastern demographic pressures, improved climate, and benefits of economic diversification). Others (Alex 1981; Ahler 1984, 2007; Gregg and Picha 1991; Fawcett 1983) postulate that some Plains Village groups were originally Woodland people who adopted a horticultural lifeway.

Suggested places of origins for the Awaxawi and Hidatsa-proper subgroups include eastern North Dakota, such as the Devils Lake area. Alternatively, Ahler (1991:47-49) hypothesizes a more eastern origin in central and southern Wisconsin with sites in eastern North Dakota such as Sharbono and Hintz being waystations for the Hidatsa subgroups migrating west. Part of the problem with investigating the origins of the tradition has been that most archaeological investigations of Plains Village have been concentrated in the Missouri Trench while less work has been done in the eastern part of the state. The James River study unit provides excellent potential to explore this more fully.

Based upon excavations in the Jamestown Reservoir area, Wheeler (1963) defined an eastern Plains Village complex on the James River called Stutsman focus. The 10 sites included in the focus by Wheeler (1963:Figure 26) are 32SN3, 32SN30, 32SN34, 32SN35, 32SN36, 32SN37, 32SN38, 32SN39, 32SN40, and 32SN41. The focus encompasses village sites, boulder-lined depression sites, and burial sites. Distinguishing characteristics are small, circular earthlodges with four central posts surrounded by double rings of peripheral posts and long, covered, off-center entryways opening on the east or southeast. Villages and campsites were not fortified, were situated on alluvial terraces on the James River, and were semi-permanent. Drying racks, sweat lodges, hearths, and subfloor cache pits were located inside the villages, and eagle traps were constructed on nearby bluffs. Wheeler (1963:171) proposes that subsistence was based on hunting and gathering, as well as horticulture, although no evidence of cultivated crops was recovered in his excavations. Cultural materials associated with the focus are side-notched projectile points; a variety of chipped and ground stone tools; steatite, limestone,

and Catlinite pipes; scapula hoes and other bone tools; shell pendants; and ceramics similar to the Hidatsa Painted Woods focus (Wheeler 1963:171-172). Using ceramic typology and associations with trade metal, the focus is dated circa AD 1750-1800 (Wheeler 1963:172).

Schneider's (1982a) analysis of sites excavated south of Jamestown resulted in separation of the Plains Village tradition into three cultural periods (Periods 3, 4, and 5). Period 3, the first and earliest, is represented by a component at the Quast site (32LM234) that contains the remains of charred corn. A hearth containing corn yielded a date of 705±70 RCYBP (UGA-1097) (Schneider 1982a:121). The calendar date range is AD 1261-1372 with 95% confidence (Stuiver and Pearson 1986). This is, to date, the earliest documented occurrence of corn east of the Missouri River in North Dakota. Ceramics associated with the corn are simple stamped vessels with straight to outflaring rims; vessel lips are decorated with notches. The site has been interpreted as a special meat processing camp where bone grease was produced (Vehik 1977:179).

A second series of occupations (Period 4) during the Plains Village period is recognized in six multiple component sites (32SN246, 32SN247, 32LM235, 32LM240, 32SN221, and 32SN207) and one single component site (32LM241). Schneider (1982a:123) suggests these occupations date between approximately AD 1300-1400. Ceramics from the sites show similarities to Cambria ware. Cambria ceramics are usually found in southwestern Minnesota and appear to be related culturally to the Initial Variant of Middle Missouri Tradition (Anfinson 1979:51). Surface treatments on undecorated body sherds include cord roughened, simple stamped, check stamped, and brushed. Projectile points are side-notched and corner-notched, and several bone tools were recovered. The faunal assemblage shows an increase in deer, antelope and canids but was dominated by bison. House structures were not observed (Schneider 1982a:122-123).

Schneider's Period 4 includes a component at the Beeber site (32LM235), the surface materials at Hendrickson II (32SN402) and 32SN207, the Rode site (32SN238), and Hendrickson III (32SN403), a fortified earthlodge village. The fortified Seefeldt Village site (32LM101) and lodge features at Greenwood Village (32SN58) may be of similar antiquity. The Beeber component is interpreted as a temporary camp occupied by a hunting party from the Missouri River based on the presence of an Extended Coalescent vessel (ibid.:125). The Hendrickson III village was small and had three circular lodges located inside the ditch and three or four outside. The weighted average of three radiocarbon dates from Hendrickson III indicates use circa AD 1317-1414. The lithic assemblage recovered from Hendrickson III shows a decrease in the frequency of KRF and an increase in jasper/chert and silicified sediment (Schneider 1982a:123). Most projectile points are un-notched triangular, and a minority are side-notched (ibid.:125). The ceramics show similarities to several of the Stutsman focus wares, Devils Lake/Sourisford pottery, and has a Coalescent cast to the materials (ibid.). Subsistence appears slightly different from Plains Village occupations on the Missouri River. The inhabitants of Hendrickson III evidently continued to utilize a variety of species of small game animals as well as bison and continued foraging for wild plants in addition to cultivating corn (Schneider 1982a).

Period 5 is marked by the presence of Euro-American trade goods, however Schneider (ibid.:125) notes, "It may be that this occupation is associated with a portion of the ceramics assigned to Period 4 or Period 3 occupations." Sites fitting into this temporal classification include Beeber, Biesterfeldt, and Hintz.

The task of reconciling cultural dynamics within the Northeastern Plains continues. A new taxonomic unit, Northeastern Plains Village tradition, has been proposed (Toom 2004). Toom explains (ibid.:294),

> The origins of the Northeastern Plains Village complex itself appear to lie in the Cambria complex of southwestern Minnesota, an early Plains Village manifestation. Cambria was previously considered to be part of the Initial variant of the Middle Missouri tradition (Henning 2001), but Henning and Toom (2003) now suggest that Cambria be removed from the Middle Missouri tradition and placed in a separate branch of Plains Village development: the Northeastern Plains Village tradition. Under such a scenario, and with reference to the Middle Missouri and Coalescent traditions, the Cambria complex would be the Initial variant of the Northeastern Plains Village and the Scattered Village complexes would be its Extended variant.

Clearly, the Plains Village period in eastern North Dakota was a time of great change. Several investigations have been undertaken and theories posited but more research is necessary.

The Devils Lake/Sourisford complex is distinguished by exotic items such as incised miniature vessels, *whelk* shell gorgets, tubular pipes, *columella* shell beads, and incised stone tablets (Syms 1979:283). Burial mode is not addressed in Syms' (1979a) article, probably since most of sites that have been associated with this complex have not been professionally excavated. Radiocarbon dates from three of the mounds and two occupation areas indicate a range from AD 900-1400 (Syms 1979). Geographically, the Devils/Lake Sourisford mounds are found in eastern and northern North Dakota, southern Manitoba, and southeastern Saskatchewan. Syms (1979:283, 303-304) suggested that Devils Lake/Sourisford mortuary behavior was enacted by nomadic Siouan peoples, perhaps ancestral Assiniboine, Teton Dakota, Crow, Mandan, or Hidatsa.

Miniature vessels indicative of the Devils Lake/Sourisford complex have been recovered from several sites in the JRSU (Swenson and Gregg 1988). The sites consist of two mound sites (32LM104 and "Montpelier Mound") and a Plains Village earthlodge site (Hendrickson III, 32SN403) in the valley bottom. In addition, the surface treatments, decorative techniques, tempering, shapes, appendages, and wall thicknesses of the Devils Lake/Sourisford vessels are similar to those of full-size jars from numerous Plains Village residential sites that were occupied between AD 1100 and 1400 along the upper James River. Based on these parallels Swenson and Gregg (1988) concluded that the resident Plains Villagers interred at least some of their deceased in burial mounds along

the valley rim. Archaeological finds from the James River indicate that this ritual was also practiced by semi-sedentary people, and their descendants may be the historic Hidatsa (Swenson and Gregg 1988).

At Greenwood Village (32SN58) cord impressed rim sherds were recovered from the surface. The sherds, comprising part of one vessel, are reminiscent of cord-impressed rims recovered from Mandan, Hidatsa, and Arikara sites. The presence of this vessel suggests two possibilities: (1) Greenwood Village may have been occupied by villagers or (2) occupants of Greenwood Village were in contact with the Missouri River villagers and part of their relationship involved exchange of goods and/or intermarriage.

In addition to the specific sites listed above, Plains Village components are present at Makecega (32SN57), Larson (32SN106), Gohner I (32SN215), Mayer (32SN119), Isan (32SN120), Akata (32SN121), Ituhu (32SN110 – ca. AD 1350), Tahuka (32SN113), Kirschenmann III (32SN247 – ca. AD 1290), Kazapa (32LM8), Ptega (32LM15), Peterson (32LM22), Stroh (32LM236), McCleary (32LM243), and Chappell II (32LM244).

Paleoenvironmental Modeling

What were the environmental conditions during the Plains Village period in the JRSU and what resources were available? During the Neo-Atlantic episode climatic conditions are suggested to have improved which corresponds with the spread of Plains Village horticulture. Did the climate change have a significant impact in the adoption of corn agriculture by Plains Villagers in the SU?

Cultural Chronology

The observations and model presented by Schneider (1982) for the Plains Village period continued to be supported by the data recovered from excavations in that area during the mid- and late-1980s and 1994-2000.

As mentioned previously, the origin of Plains Villagers has been a topic of debate. Research indicates the study area was used by early Villagers by AD 1200 and possibly earlier, showing similarities to Middle Missouri tradition and Northeastern Plains Village tradition.

A possible Hidatsa occupation is postulated at the Hintz site (32SN3). At Greenwood Village (32SN58), some ceramics from the Protohistoric component are cord impressed reminiscent to Mandan, Hidatsa, and Arikara ceramic wares. At the time of the first historic accounts in the late 1700s, the area was the territory of the Middle Dakota.

Did the Plains Village tradition evolve out of the Woodland tradition or did the Plains Village peoples migrate into the area? How does the Plains Village tradition relate to the Plains Woodland tradition? Did the two traditions coexist for a time and represent two or more different cultures? Were James River Plains Village peoples physically

different from James River Woodland peoples? What were Plains Village mortuary practices? How can they be distinguished from later and earlier burial sites? Is the hypothesis of in-place cultural continuity from Sonota through the early Late Woodland into Plains Village supported by continuity of mortuary ceremonialism at the Jamestown Mounds site?

In testing and excavation programs, techniques and/or specialists need to be employed that enable the separation of multiple components to establish a reliable database concerning lithic, ceramic, bone, and shell technologies. This needs to coincide with collecting samples that provide absolute dates. Identify curated collections from sites with discrete components that have samples that could be radiocarbon dated.

Settlement Behavior

A fortified Plains Village site (Hendrickson III, 32SN403) is present in the SU on the terrace of the James River. All the presently recorded Plains Village residential sites recorded to date have been on floodplain and terrace terrains. Plains Villagers interred at least some of their dead in burial mounds. Most of the mounds are situated along the bluffs of the valley, although some have been recorded on terraces. At the Hintz site (32SN3) Plains Villagers resided in earthlodges identical to those of the Mandan, Hidatsa, and Arikara along the Missouri River. What other type of structures were constructed and occupied by the various Plains Villagers and Dakota people in the SU? Geophysical surveys at villages could potentially identify the type of structures that were constructed and occupied.

What were the Plains Village settlement patterns in the JRSU? Is there a greater density of Plains Village sites in the lower James River than the middle or upper parts? How does the settlement pattern along the James River compare to that of the Missouri River to the west and Sheyenne River to the east?

Native Subsistence Practices

Evidence for Plains Village horticultural-hunter-gather lifeways exist in the SU. Specifically, evidence of horticulture in the form of corn cobs or kernels is present at several sites including Akata (32SN121), Naze (32SN246), Larson (32SN106), Hendrickson III (32SN403), Quast (32LM234), and Kirschenmann III (32SN247). Gardening implements such as scapula hoes have been recovered at Larson (32SN106) and Hendrickson III (32SN403). Evidence of hunting is primarily bison with minor amounts of game such as deer, Canids, fox, rabbit, bear, elk, and river mollusks. Recovery of wild plum pits, rose achenes, chokecherry, wild grapes, pea vine, and sedge evince wild food gathering at numerous sites including Hendrickson III (32SN403), Beeber (32LM235), Kazapa (32LM8), Ituhu (32SN110), Naze (32SN246), and Quast (32LM234). Bone grease manufacture was the major activity represented at Quast (32LM234).

What were the subsistence strategies of the Plains Villagers; what resources were exploited? How did Plains Village gardening practices change through time? Did adoption of any new species during the Plains Village period result in great increases in storable food surpluses?

How did the horticultural-hunter-gatherer lifeways of the Plains Villagers in the JRSU compared to other Plains Villagers in other SU? From the presently known information, bison hunting was central to the overall subsistence but to what extent was gardening practiced and how did dependence on wild plants vary through time and from place to place? It is imperative that fine-mesh screening and flotation be implemented to sample for seeds and domesticated plant remains in cultural deposits. The testing programs conducted by UND for this SU attests to the value of fine-screen recovery and flotation, especially regarding the recovery of floral materials.

Technologies

Similar technologies are present at Plains Village period sites in the JRSU and those in the Middle Missouri subarea. Bipolar core reduction is practiced. Shell pendants made from freshwater mussel shell are present as well as shell scrapers or spoons at Greenwood Village and Larson (32SN106). Mussel shell fragments found in association with corn at Larson may indicate shell scrapers were used to process maize (Gregg et al. 1986:97-98; Gregg et al. 1987:488; Picha 1987). Bead making debris was present at Ituhu (32SN110) and Wanitipi (32LM9). Bison scapula hoes have been recovered.

Schneider (1982) suggested that the use of KRF for chipped stone tools declined from the early Plains Village to late Plains Village. This has been supported from the flaking debris samples recovered from numerous tested sites in the SU. Flaking debris samples dating to the late Plains Village show an increased use of locally available Swan River chert and TRSS (Gregg et al. 1987:491). Heat treatment of Swan River chert is evident.

Examine ceramic manufacturing techniques to further understand connections to other areas. Collect clay samples for potential sourcing. Do previously excavated site collections contain clay samples that were collected by inhabitants?

How do Plains Village technologies compare to earlier and later technologies? Collection of baseline information concerning lithic, ceramic, bone, and shell technology from well-dated sites needs to be continued.

Artifact Styles

Ceramics from the Plains Village period along the James River generally are globular shaped jars with straight to outcurved rims. Tempering is generally grit but occasionally shell or combinations of grit and shell are used as plastic agents. Lips are most frequently rounded or flattened with opposing pairs of tabs. Exterior surfaces are usually smoothed or burnished but sometimes simple stamped or check stamped and

rarely, cord roughened. Decorations include trailed line and tool impressions on the neck to shoulder and upper body. “Ceramics of the Northeastern Plains Village complex are evidently a product of local stylistic preferences that were strongly influenced by Oneota and/or Cambria and Missouri Valley wares as well” (Michlovic and Swenson 1998:23).

Michlovic and Swenson (1998:24) propose a revised taxonomy for Northeastern Plains Village ceramics, changes include: (1) creation of a Northeastern Plains Village ware group (Lisbon, Buchanan, and Owego Flared Rim wares); (2) move the Lisbon Tool Impressed type to the Sandy Lake ware category; (3) abandon the classification of Red River ware and place its types within the Lisbon and Buchanan Flared Rim wares; and (4) classify the remaining Stutsman focus wares as Missouri Valley pottery.

Regional Interaction

Marine shell, Catlinite, copper, and obsidian artifacts have been recovered from Plains Village sites. Columella beads are made from whelk and conch from the Gulf or Atlantic coast. Catlinite from southeastern Minnesota was carved into tubular pipes or engraved tablets. Use of Catlinite was common during the Plains Village period. Beads made from Lake Superior copper have been recovered. What are the mechanisms of trade for such items? Can trade routes be identified? What other evidence is there for regional exchange? Did the east-west, long distance routes of exchange between the Northeastern Plains and the Upper Midwest change from the Middle Woodland period to the Plains Village period?

The presence of nonlocal raw materials in the chipped stone tool and flaking debris assemblages are evident in numerous Plains Village sites. Knife River flint is the most abundant material. Less amounts of Yellowstone Agate, Bijou Hill silicified sediment, plate chalcedony, porcellanite, smooth gray TRSS, obsidian, and Rainy Buttes silicified wood have been documented.

Historic Preservation Goals, Priorities, and Strategies

Property types recorded in the study area are cultural material scatters, earthlodge villages, earthworks, fortifications, eagle trapping pits, stone circles, stone alignments, graves, hearths, mounds, pits, and lithic procurement areas.

Any property with the potential to yield data concerning this tradition would be eligible for nomination, given sufficient integrity.

Much work in the James River drainage system has been directed toward inventory of the river valley and adjacent terraces. Little area outside of the valley has been intensively surveyed. More excavation and testing are needed of bottomland sites.

A few suggested priorities are:

1. Consult a geomorphologist to identify land surfaces which date to the Plains Village period throughout the study area.

2. Testing and excavation of sites using rigorous field techniques to maximize artifact and ecofact recovery should be promoted. Use fine-mesh screening and flotation to collect seeds and domesticated floral remains in cultural deposits.

3. Conduct intensive inventories of unsurveyed uplands terrace and floodplain settings that have not been surveyed.

4. Document private collections and locate additional Plains Village sites based upon site leads from private collectors and complete NDCRS site forms for all identified properties and collections.

5. Identify tested and excavated sites with collections containing adequate samples to refine our knowledge regarding chronology, native subsistence practices, technologies, artifact styles, and regional interaction.

6. Use available LIDAR resources to identify sites with fortifications.

Equestrian/Fur Trade Period

The Equestrian period (AD 1780-1880) spans the time after the introduction of the horse and the arrival of Euro-American trade goods to the region. Euro-American exploration and fur trade expansionism provided written records documenting cultural and environmental conditions.

Traditional anthropological interpretation holds that after initial European contact in the late 17th and early 18th centuries, the Yankton and Yanktonai (or Middle bands of the Dakota) began a westward movement out of the upper Midwest towards what is now eastern North and South Dakota (Howard 1976:5). From then until the heavy European settlement of the mid-19th century, the James valley was part of the territory of the Yankton and Yanktonai. The earliest record of this Dakota occupation comes from the John K. Bear Winter count, a “calendrical history pertaining to the Lower Yanktonai Dakota” (Howard 1976:1). This account indicates that the Yanktonai had winter camps along the James River in 1725 (Howard 1976:28). Alfred W. Bowers, in his ethnohistory of the Hidatsa, also placed the Dakota on the James River prior to 1780 (Bowers 1965:215). By the time Lewis and Clark made their expedition up the Missouri River in 1804, the Yanktonai had established the James River as the central waterway of their territory (Thwaites 1969:95).

Paleoenvironmental Modeling

Climatic conditions during late prehistoric and protohistoric times are thought to have been cooler and moister (referred to as the Neo-Boreal episode or Little Ice Age) than the present (cf. Grove 1988). Concordant with these moister conditions was a posited buildup in the regional biomass including the bison herds. Did the Little Ice Age end early in the Equestrian period? What were the environmental conditions in the JRSU?

Cultural Chronology

Tribes posited to have been in the territory during early historic times include Dakota (Yankton and Yanktonai), Cheyenne, Awaxawi Hidatsa, and Assiniboine.

The Hintz site (32SN3) has been interpreted as possibly representing a Hidatsa village (Wheeler 1963:229; Wood 1980:67, 1986). Metal knife blades from the Hintz site were used to document native utilization of materials supplied by direct or indirect Euro-American trade during the Protohistoric period (Wheeler 1963:189). Archaeological excavations at Naze (32SN246), Beeber (32LM235), Wanitipi (32LM9), and Peterson (32LM22) sites produced a gun flint, flintlock gun part, glass trade beads, and sheet brass scrap indicating Protohistoric occupations (Gregg 1987; Schneider 1982). Representative samples of trade materials collected using fine-screen recovery during testing and major excavation will aid in developing a chronological scheme.

Settlement Behavior

How did protohistoric and historic Equestrian Nomadic settlement behavior differ from that of prehistoric nomadic hunter-gathers? In the JRSU, several ring sites have been recorded but most have not been identified as to cultural/temporal affiliation. In other study areas, most ring sites are suggested as being temporary camps occupied by prehistoric Woodland peoples (cf. Deaver and Deaver 1987). However, many were constructed by equestrian nomads and equestrian villagers. Techniques and strategies need to be utilized that will enable identification of cultural/temporal affiliation.

What were the settlement patterns in the JRSU? What type of structures were constructed and occupied? What is the density of Protohistoric sites in this study area as compared to the Sheyenne River SU? What were the mortuary practices?

At the Peterson site (32LM22), manuports and fire-cracked rock from a protohistoric occupation in a forested floodplain setting were visible on the surface when the leaf litter was removed. Like a tipi ring site in the uplands, a surface site on the floodplain offers potential for determining the size of the settlement represented by the archaeological remains.

Native Subsistence Practices

Equestrian Nomadic subsistence practices involved hunting principally bison, plus deer and pronghorn, supplemented by foraging for wild plant foods such as prairie turnip (*Psoralea esculenta*) (cf. Denig 1961:10-13; Reid 1977). What differences should be expected in floral remains recovered from Equestrian Nomadic versus Plains Village winter residential bases? It is imperative that fine-mesh screening and flotation be implemented to sample for seeds of tobacco and other plant macrofossils in cultural deposits.

Technologies

During late prehistoric times, Plains Woodland and Plains Village societies experienced varying degrees of cultural change associated with shifts in settlement and subsistence practices. The introduction of the horse and fur trade expansionism brought material changes that impacted native technologies. What evidence of this is seen in the artifact assemblages?

Artifact Styles

In-depth study of various regional artifact styles provides useful clues for separating or combining the material culture of ethnic groups on the Northern Plains. Are there recognizable stylistic differences in archaeological remains?

Regional Interaction

What evidence is there for regional interaction? Did interactions between the Plains Villagers and their non-Village neighbors change during this period?

Historic Preservation Goals, Priorities, and Strategies

Ethnohistoric research provides the necessary background information to generate information concerning prehistoric and protohistoric settlement and land use for the SU. Virtually nothing is known about this period, and thus any property with the potential to yield data concerning this tradition would be eligible for nomination, given sufficient integrity.

A few suggested priorities are:

1. Conduct ethnohistoric research to provide background information (climate, environmental, cultural, etc.) and site lead information regarding this tradition and fur trade sites.

2. Follow up #1 with surveys to identify and record properties. Then, with formal test excavations that produce sufficient samples to address research questions in report findings.

3. Document private collections and locate additional sites based upon site leads from private collectors. Update NDCRS forms.

4. Testing and excavation of sites using rigorous field techniques is needed to maximize recovery of ecofacts and artifacts. With recovery maximized, it is then necessary to proceed with a scientific methodology that includes detailed and accurate data collection to enable thorough descriptive analyses and hypothesis testing with a high degree of confidence.