Describe Present and Historic Physical Appearance.

SUMMARY

Menoken Village is a prehistoric archeological site located on a terrace of a perennial stream approximately 12 miles east of the Missouri River in south-central North Dakota (Figure 1). The village was substantially fortified with a bastioned ditch and palisade system protecting the majority of the domestic structures in the village, while exploiting the natural defenses provided by the steep terrace edge on two sides. The ditch system and several house pits are apparent on the modern surface and define the general size and shape of the archeological resources. Fortunately, the site has been protected by the state of North Dakota since the early twentieth century. The site is nearly free from negative impacts, lying in an area where aeolian deposition has thinly mantled the Late Plains Woodland habitation surface, protecting the cultural features from the effects of erosion.

The primary component of Menoken Village is a terminal Late Plains Woodland occupation, dated to the first or second decade of the thirteenth century A.D. This age is implied through ties with known sites of the Charred Body complex and is substantiated by a suite of radiocarbon dates. Hallmarks of the physical evidence within the site include oval, earth-covered houses constructed on the surface and in shallow pits, diverse stone tools made primarily of Knife River flint, cord-roughened pottery, and a developed bone tool industry. The material evidence links Menoken Village to both Plains Woodland tradition sites in North and South Dakota as well as early Plains Village tradition sites along the Missouri River in South Dakota. Evidence for the practice of horticulture, such as abundant domestic plant remains, storage facilities, or gardening implements, is lacking, whereas a subsistence base emphasizing bison is strongly indicated. The people of this village were hunter-gatherers living very close to settlements occupied by Plains Village farmers. The material assemblage reflects a Late Woodland adaptation and cultural heritage, communications and cultural linkages with nearby Plains Village farming communities, and participation in a more widespread interaction sphere that distributed native copper and marine shell artifacts across large parts of interior North America. The 200 or more people who lived in Menoken Village committed time and energy to a semisedentary lifeway while supported by a simple hunter-gatherer economic base.

The property meets Criterion 6 for National Historic Landmark nomination, Criterion D for National Register of Historic Places nomination, and applies to Peopling Places under the NHL thematic framework. Menoken Village has the potential to inform us about the rapid and dramatic process of the adoption of corn horticulture as a new organizing framework for human habitation that began about 1000 years ago and transformed the cultures of interior North America. Menoken Indian Village far surpasses other sites of this era with regard to the amount of data that can inform this research. The theme Peopling Places is applicable through the study of subsistence pursuits, raw material acquisitions, long distance contacts, settlement patterns, and architectural patterns. In addition, the temporal placement of Menoken Indian Village at the terminus of the late Plains Woodland period is a unique and key attribute among all the sites of this archeological complex.

SITE SETTING

Menoken Village lies on a bend of Apple Creek in Burleigh County, North Dakota. Apple Creek is a small, west-flowing tributary of the Missouri River (Figure 1). The local landscape is dominated by low, rolling glacial plains with a maximum local relief of 30-90 m (100 – 300 ft) (Bluemle 1991:4-5). Environmental conditions are somewhat harsh, with maximum recorded temperatures ranging between -45 degrees F (-43 C)

and 114 degrees F (46 C). The frost-free growing season is, on average, from mid-May to late September (Wood 2003:10).

Menoken Village lies at the margin of a terrace overlooking wooded cutbanks and a small grove of timber to the west and north (Photo 1). This location, approximately 9 m (30 ft) above the stream, proves a natural defense and affords a good view of much of the surrounding area. At the time of the original General Land Office survey in 1873, the valley of Apple Creek for several miles above and below the village was relatively devoid of timber except for the prominent grove near the village site. The upland region outside the creek valley was treeless grassland, with an extensive marshland known as McKenzie Slough (Figure 1) lying about three miles east of the site (Wood 2003:13). Although no detailed reconstruction of the prehistoric environment around Menoken Village has been undertaken, there is no reason to believe that the landscape has changed significantly since the time of occupation. The situation at the time of historic settlement can probably be projected backwards in time to the period of village occupation 650 years earlier.

The immediately local area provided little, if any, of the mineral resources used by the inhabitants of Menoken Village. Cryptocrystalline rock (primarily Knife River flint), used for chipped-stone tool production, was obtained primarily from sources across the Missouri River west of the village, and up to 100 miles distant. The large quantity of igneous and metamorphic stone used for tools or found as fire-cracked rock was found no closer than two miles from the village in any direction. Thus far, catchment analysis of the known resources in the immediate vicinity of the village has revealed no strategic resource that is unique to the area (Wood 2003:12-15). If there were a specific food resource that drew people to the Menoken Village location, such as a particular plant species, it is still unrecognized in the archeological record. The village was apparently situated to take advantage of a localized timber resource, a defendable place on the landscape, nearby bison herds, and unspecified plant resources in the surrounding marshlands and prairie uplands.

The high terrace that supports the village is not prone to flooding, and stratigraphic evidence indicates that the site has been uniformly overlain with a protective layer of windblown sediment since the site's abandonment. The setting has probably changed little since the site was occupied and would be easily recognized were its previous inhabitants to visit the site today.

PHYSICAL CHARACTERISTICS OF THE SITE

A wealth of new information, summarized in this section, is now available regarding the physical

characteristics of Menoken Village. Much of the information in this section derives from research during the period 1997-2002, as reported in Kvamme (2001) and Ahler, ed. (2003). References to information in the edited 2003 volume for which S. Ahler is the principal author, will be cited below by chapter number, since Ahler is also a principal author for this nomination form. References to work by other principal authors in the edited volume will be cited more specifically by author and page number.

Integrated data from surface topography, geophysical survey, hand coring, and traditional excavation, indicate that the Late Plains Woodland occupation of Menoken Village centered around at least 11 houses within a fortified area and two houses outside the enclosure (Figure 2, Figure 3). Associated with these houses is a relatively contiguous mantle of artifact- and feature-rich midden that begins a few centimeters below the surface and extends to 60, 80, or 150 cm below surface at the base of borrow pits, house pits, and the village fortification ditch.

Site Type

Menoken Village is a Late Woodland fortified village used by hunter-gatherers who had a primary hunting adaptation based on bison. The village probably served as a semipermanent base for the occupants who would have had to make frequent forays into the countryside to procure meat and other raw materials. The fortification would have served as a social center and a focus for defense of the inhabitants. The layout of Menoken Village is shown in Figure 3, which identifies the principal features of the settlement that can be readily discerned on the current ground surface. The primary structural features of the settlement are described in the next subsection.

Structures

There are no standing structures from Late Plains Woodland times but a massive defensive ditch, as well as several house depressions, are still evident on the surface of the site (Figure 3). The fortification ditch is the most prominent prehistoric feature at the village (Photo 2). When accurately mapped (Figures 2, 3, 4) or viewed on aerial photos (Photo 1), it is apparent that the ditch, ignoring the bastions, forms a highly regular arc comprising slightly more than one quarter or about 100° of a nearly perfect circle. Geometric projection places the centerpoint of this arc at the extreme northwestern corner of the village, at the point where the narrow ridge of land joins the village proper. Four bastions, or outward-projecting loops, occur along the ditch line (Photo 2). Three of these are equally spaced, about 47-48 meters apart, while the fourth is placed quite close to the third. Each loop in the ditch line extends about 13 m outside the normal arc of the ditch. Excavations in 1938, 1998, and 1999 show that the ditch was dug about 1.5 m below the surrounding ground surface, and that it varied from six to seven m wide at the surface. The ditch is about 245 m in length. The ditch itself covers an area of about 0.41 acre (0.162 ha), and the site area lying inside the inner margin of the ditch is about 1.48 acres (0.593 ha) (Ahler, ed. 2003:Chapters 3, 5, 14).

Excavations in 1998 and 1999 (Photo 3) and geophysical studies revealed that sod removed from the ditch during its excavation was stacked in a relatively even line to the interior of the ditch (Kvamme 2001:23-24, 46-48). The total volume of sediment excavated from the ditch is

estimated to be 1,245 cubic meters. Excavations in 1938 and 1999 documented a palisade consisting of a line of large vertical posts paralleling and 3.0 to 4.5 m inside the ditch centerline (Will and Hecker 1944:11-12, Plate 7). Altogether, an estimated 700 or more posts occur in the palisade (Ahler ed. 2003:Chapters 3, 14).

Oval depressions marking the locations of at least eight pit houses are visible on the site surface, with six of these occurring inside the fortification and two a short distance outside (Figure 3). Geophysical surveys (see Figure 4) indicate that virtually all surface-visible pit houses were earth covered and were destroyed by fire. Such surveys also reveal the location of at least three additional burned house structures inside the fortification, two of which are not visible at the surface, but no additional dwellings outside the ditch (Figure 4) (Kvamme 2001:22-23). An intensive hand coring program within the fortification revealed the presence of at least two, and perhaps four additional structures that burned but left no clear surface or geophysical expression (Figure 5). This brings the known house count within the fortification to between 11 and 13. A large part of the site interior not yet investigated by excavation or coring is thought likely to also contain additional house remains. It is estimated that remains of between 25 and 30 total dwellings may exist within the fortification ditch (Ahler ed. 2003:Chapter 8). If most of these dwellings were occupied at a single time, the village would easily have contained 200 or more individuals.

Interiors of two semi-subterranean houses and one surface house have been partially or fully excavated, yielding considerable data about architecture, associated features, artifacts, and stratigraphy. House 1, marked by the most prominent house depression visible at the surface, was excavated by Columbia University in 1938 and Thad. Hecker in 1939. This house had an oval floor plan and measured approximately 8.5 x 6.1 m (Figure 6). The house was built in a pit about 0.76 m deep, with an entry ramp exiting to the northeast and with a central fire pit. Few roof support posts were recorded during excavation. Very little documentation exists from the excavation, although a summary may be found in Will and Hecker (1944:13-15).

House 2, excavated in 1998-1999, was built in a pit excavated about 50 cm below the surrounding ground surface and measured approximately 5 x 7 m in size (Figure 7, Photo 4). The roof contained abundant wood and was covered with a thick layer of earth (ca. 25 cm). The structure had a ridgepole supported at the back of the house by a single main post and at the front by two large posts and presumed lintel that framed the entryway. The shape of the house was an elongated and asymmetrical oval, tapering slightly in width toward the rear. Roof support posts were notably absent along the walls and perimeter, suggesting that the walls may have been constructed of stacked sod. The southwest-facing entrance was marked by an earthen ramp sloping down into the interior that served to isolate interior alcoves on either side of the ramp. A large interior hearth occurred near the house center. The house was destroyed by fire, with the heat being most intense in the front half of the structure (Ahler ed. 2003:Chapter 12).

House 17, discovered by magnetic survey (Figures 3 and 4) and excavated in 1998-1999, was an oval structure constructed on the prevailing ground surface and measured approximately 5 x 7 m in size (Figure 8, Photo 5). This house had a substantial, earth-covered roof supported by curving lines of vertical wall posts spaced about a half-meter apart and by two or three additional supports along the central axis of the house. The orientation of the structure was 90 degrees to

that for House 2, with a long axis trending northwest and southeast. Neither the location nor form of the entryway could be determined, nor could the shape of the structure end opposite the door, due to incomplete excavation of the house floor area. A large fire basin occurred near the center of the structure. House 17 was also destroyed by fire, which left a 25-cm thick layer of burned earth and roof fall debris on the house floor (Ahler ed. 2003:Chapter 13).

Features, Artifacts, Faunal, and Botanical Remains

In addition to the posts and postmolds associated with house and palisade constructions, features consist predominantly of hearths, shallow basin-shaped pits, and debris concentrations (see Figures 7 and 8; Photo 6). Central hearths existed within each structure, and smaller surface and shallow basin hearths occur on the ground outside House 2 and House 17. Several shallow basin pits, unsuitable as storage facilities and probably reflecting borrow locations for earth for the house roofs, occur outside and around each dwelling. These basins contain refuse similar to that which mantled the ground outside each dwelling. One slightly deeper pit outside House 2 (F203) contained a mass of apparent pottery clay that may have stored at this location. One straight-sided pit (F135) of uncertain size (having been over-excavated by an inexperienced worker) occurred in the interior of House 17; this may have been a small storage facility. Lacking in this inventory of features searched for through excavation, geophysical survey, and coring, are the large undercut pit facilities that are so characteristic of Plains Village tradition, horticultural sites in the region (Ahler, ed. 2003:Chapters 12,13). One other feature of note is an apparent foot path or trail that wound between dwellings within the village. This feature was detected by electrical resistance survey and was confirmed through excavation (Kvamme 2001:48-49).

Excavations at Menoken Village during 1998-1999 provide us with a very well-controlled and sizeable artifact sample by which to evaluate and characterize the material culture as well as the organization of technology in a Late Plains Woodland context in what is now central North Dakota. The general content of the artifact assemblage from Menoken Village is briefly summarized here.

Ceramics

The 1998-1999 excavated pottery sample totaled 10,526 sherds down to ¼-inch in size. At least 88 Late Plains Woodland age vessels are represented by the sample (see Photos 7 and 8 for examples). Late Woodland pottery from Menoken is grit-tempered and manufactured by lump modeling rather than coiling. Vessel bodies typically have partially smoothed over cord-roughened surfaces suggesting finishing by paddle and anvil. Vessel shapes are typically globular, jar forms; well defined shoulders are present on some vessels. Vessel rims are mostly short and straight or everted, and are occasionally strongly everted, collared, or S-shaped. Straight or everted rims are most often decorated with simple designs confined to the lip or lip margin, consisting of short incisions, tool marks, or cord-wrapped tool marks. Outer faces of S-rims are sometimes more completely decorated with horizontal incised lines or parallel rows of cord-wrapped tool impressions. At least three vessels in Late Plains Woodland context have an S-shaped rim form and decoration that suggests that they were made by Plains Village tradition peoples or were copies of Plains Village tradition pots. If made by horticultural villagers, the nearest source for these pots would have been Jones Village (39CA3), an Initial Middle Missouri

variant community about 70 miles south of Menoken (Swenson 2003).

Stone Artifacts

Stone artifacts include chipped and ground stone tools and abundant flaking debris. The 1998-1999 excavated sample consists of 2,350 tool occurrences and 127,671 flakes. The tool collection is dominated by expedient tools made on flakes and tabular pieces of Knife River flint, bipolar nuclei, and arrowpoints. Arrowpoints (Photo 9) are predominantly the Prairie Side Notched type (Kehoe 1966, 1973), while more nondescript, side-notched forms and Avonlea type points (Kehoe and McCorquodale 1961) also occur. Also occurring are patterned bifaces, end scrapers, non-bipolar cores, small precision implements (drills, perforators, etc.), and heavy core-tools. Particularly interesting are double-ended specialized planes made on polyhedral blades or elongated flakes and tiny spalls from the burin-like removal of the working edge on hide scrapers (Photo 10). Patterned ground stone tools include notched axes, a full-grooved ax, and grooved mauls (Photo 11). Large, heavy tools made from glacial rocks are prominent, and these include edge-modified pieces of tabular shist and pick-shaped objects of uncertain function that have not yet been recognized at any other site, as well as battered, specialized plant processing tools that have a long history of occurrence in the region. Bipolar objects are abundant, and there is some evidence that bipolar cores were produced for use as specialized wood working planes. Nonutilitarian items are rare, but include pigment stones and tubular pipes. Overall, the stone collection is oriented toward hunting and specialized processing or fabrication of wooden objects and unidentified plant species. An overriding feature of the assemblage is the near-exclusive use of Knife River flint as the single preferred, fine-grained knapping material. For reasons still unclear, the occupants of Menoken Village were strongly dedicated to the use of Knife River flint to the exclusion of all other stones (Ahler, ed. 2003:Chapter 24).

Bone and Antler Tools

The modified bone and antler assemblage excavated in 1998-1999 (n=113) is dominated by awls and pressure flaking tools and is augmented by a few patterned and expedient fleshers, picks and digging tools, cutting tools, scrapers, punches, and the like. Small numbers of nonutilitarian items including tubes, beads, and decorated antler wrist guards occur (Photo 12). Fishhooks and specialized cultivating tools showing extensive use, such as the bison scapula hoe, are absent. The Menoken Village assemblage indicates that the final stages of leatherworking and/or textile/basketry work as well as late stage stone tool production/maintenance were particularly important activities at the site. Despite the large amount of excavation involved in ditch and house construction, specialized digging tools, including ones that could have been used in gardening, are notably sparse in the sample (Ahler, ed. 2003:Chapter 25).

Artifacts Indicating Trade

Several types of extra-local or exotic materials were found in the 1998-1999 excavations at Menoken Village. The most ubiquitous non-local material is Knife River flint, mentioned above, the most prominent sources for which occur west of the Missouri River and up to 100 miles distant. Indications of a much larger interaction sphere are given by the presence of small

amounts of native copper, presumed to be from Great Lakes sources, and marine shell from the Atlantic or Gulf of Mexico coastal areas. Copper occurs as a tiny awl tip and several scraps recovered by fine-screening in each house excavation (Ahler ed. 2003:Chapter 27). Marine shell (apparently whelk, *Busycon* sp.) occurs as finished barrel-shaped beads, disk beads, and a pendant (Photo 13); marine shell items were recovered from each of the houses (Picha 2003a).

Faunal Remains

Vertebrate faunal remains from Menoken Village are dominated by *Bison bison* (Photo 6), with the recently excavated sample containing 1,194 identified bison specimens. The bison bones show substantial surface damage, with a high percentage of burning and cut marks, and significant evidence of weathering and carnivore chewing. There is some hint from tooth wear patterns that bison exploitation may have occurred at different seasons in each of the two houses, while there is no evidence in either house for procuring newborn or very young calves (procurement during April-May) (Cruz-Uribe 2003:287). Other animal remains present include elk, domestic dog, deer, antelope, cottontail, jackrabbit, beaver, muskrat, swift fox, red fox, badger, striped skunk, crow, raven, grouse, eagle, turkey vulture, teal, goose, swan, duck, painted turtle, gar, catfish, and a few smaller fishes. Except for the domestic dog, all of these occur in very small numbers and, consequently, offer very little conclusive information about seasonality. For every vertebrate species, group, or class except bison, the picture is one of opportunistic capture rather than focused exploitation (Falk 2003:309-310). The same can be said of freshwater mussels, which also occur in small numbers in the recently excavated sample (Picha 2003b).

Botanical Remains

Despite the widespread use of flotation and fine-screen recovery methods in the 1998-1999 excavations, the assemblage of recovered edible plant remains was remarkably impoverished compared to what is typically seen in both Late Plains Woodland and horticultural sites in the area. Cultigens are extremely rare, consisting of a few corncob fragments and a single charred squash seed; large-seeded sunflower, *Iva*, beans, and tobacco are absent. Wild fruits are well represented yet not numerous. These include chokecherry, rose (seeds), grape seeds, plum pits, snowberries, and dogwood fruit pits. Sparse numbers of carbonized weed seed materials were found but were so sparse that they could easily be accounted for as materials incorporated in the construction of houses or opportunistic collecting. The presence of charred snowberries and a small numbers of corn cupules in the pit house suggests that House 2, at least, may have been a cold-season residence (Nickel 2003). A most intriguing discovery was carbonized parenchyma, undifferentiated cells that store sugars, solutes, and starches in roots and tubers that occurred in the burned roof fall debris in each excavated house. This suggests the presence of yet unidentified plant remains that otherwise left little trace in the archeological record (Chapter 27 in Ahler ed. 2003).

Depth, Extent, and Distribution of Archeological Deposits

Due to recent extensive geophysical prospecting (Figure 4), coring, and excavation programs at Menoken Village (Kvamme 2001, Ahler, ed. 2003), the extent of the archeological resource is far better understood than that of most sites of this type. The primary Late Plains Woodland period cultural horizon is most concentrated at a depth of 15 to 30 cm below the present ground surface (Photo 6). Artifacts from this cultural horizon occur at greater depth only in features and other cultural intrusions such as borrow pits, house pits, and the fortification ditch. Occasional Late Plains Woodland artifacts occur at or closer to the surface, due to continuing and sporadic processes of bioturbation (primarily rodent burrowing). The primary cultural horizon is for the most part vertically sealed beneath a 10-15 cm thick layer of wind-blown sediment lain across the terrace surface.

The Late Plains Woodland cultural horizon, and certainly clear features such as dwellings associated with that horizon, are spatially concentrated within the fortification system and in a small adjacent area just south and east of the ditch. This cultural deposit may extend as refuse down the face of the cutbanks on the north and west margins of the village. The land surface immediately outside of the State Historic Site boundary to the south and east is vegetated in a dense grass cover, which limits surface visibility. These areas have also been cultivated at some time in the past. An intensive surface survey in a separate plowed field on the same terrace surface 100 m south of the site (visible in Photo 1) revealed no diagnostic Late Plains Woodland artifacts and only a thin artifact scatter thought to be post-Late Woodland in age. A 1 x 2 m pit dug in 1999 for purposes of soil profile exposure at the terrace margin about 50 m southwest of the fortification ditch revealed no artifacts of Late Plains Woodland or other age. Will and Hecker (1944:80) comment on a scatter of surface artifacts extending for several acres on the terrace south and east of the village, but note the presence of post-contact age encampments and artifacts in that area. There is every reason to believe the primary Late Plains Woodland occupation horizon that is the focus of this nomination is spatially confined to the terrace surface immediately within and adjacent to the fortification system where pit houses are visible on the present surface, and possibly along the wooded cutbank surfaces that border the village to the north and west.

Dating

Five AMS radiocarbon dates have been generated for Menoken Village. Dated samples were taken from the two excavated houses (Houses 2 and 17) and the fortification ditch. Samples from House 2 and House 17 were short-lived materials (seeds, small twigs), while the sample from the fortification ditch was a less ideal piece of charred wood from a tree of uncertain size and age. Dating results are summarized in Table 1, with date averaging and calendrical calibrations conducted using CALIB 3.0.3c (Stuiver and Reimer 1993).

The dates from House 2 yielded a mean calibrated, calendar curve crosspoint of A.D. 1211. The two dates from House 17 yielded a mean calibrated, calendar curve crosspoint of A.D. 1213. One sigma ranges are A.D. 1163-1227 for House 2 and A.D. 1168-1225 for House 17. Wood charcoal from the defensive ditch yielded a somewhat older calibrated, calendar date, but its greater age may be due to the "old wood" effect. Thus, the four dates from the two houses are not only internally very consistent but are also most firmly associated with Late Plains Woodland

use of the site. Together, the four house samples yield a mean calibrated, calendar curve interception of A.D. 1213 with a one-sigma range of A.D. 1168-1225. This is the preferred calendar age for the Late Plains Woodland occupation at the site (Ahler ed. 2003:Chapter 16).

Site Formation Processes

Menoken Village is situated well above the floodplain of Apple Creek and has apparently suffered no appreciable erosion since abandonment. Inspection of the terrace cutbanks revealed no truncated houses or other village features, suggesting that significant erosion has not affected either site margin. About 10-15 cm of windblown sediment now mantles the Late Woodland occupation horizon.

Noncontributing Components

Analyses of all excavated materials indicate the presence of several components in addition to the primary Late Plains Woodland period occupation at Menoken Village. All of these are ephemeral, by comparison to the Late Plains Woodland occupation, and collectively account for a very small fraction of artifacts at the site. In evaluating these components, most weight is given to recently excavated materials, which are best controlled, as opposed to the collections from the 1930s that include an uncontrolled mixture of surface and excavated samples. Artifacts clearly older than the Charred Body complex are documented by five dart point fragments in the excavated collection that are probably Late Plains Archaic in age. Components of similar or earlier age are indicated by a small number of patinated flakes found in stratigraphically deeper contexts in a few excavation units (Ahler ed. 2003:Chapter 24). There is evidence that the site has one, or possibly two later components represented by non-Late Woodland specimens found very near the surface in the area of House 2. Artifacts from this horizon include two vessel rim fragments and simple-stamped body sherds thought to post-date A.D. 1600 (Swenson 2003) and a small collection of lithic debris not consistent in raw material type with debris from the houses (Ahler ed. 2003:Chapter 24). The latest Native American cultural component within the site is represented by a shallow hearth as well as a small number of glass trade beads and metal trade objects that occur predominantly within the sod horizon. This component is estimated to date after A.D. 1820 (Ahler ed. 2003:Chapter 27). Artifacts from this component were also found during poorly controlled investigations in the 1930s, and led in part to the erroneous association between Menoken Village and the La Vérendrye expedition in A.D. 1738-1739 (Ahler, ed. 2003:Chapter 3). The most recent component consists of historic age “picnic” debris, accumulated primarily during the twentieth century. This material is concentrated in the sod horizon and near the cutbank margin (Ahler ed. 2003: Chapter 9).

APPEARANCE OF THE SITE WHILE OCCUPIED

Around A.D. 1210, Menoken Village probably contained 25 to 30 oval house structures notably surrounded by a bastioned stockade fence, supplemented by a defensive ditch outside the palisade. The stockade was possibly covered with stretched bison hides as is known from later

Contact Period sites in the region. At least two houses were located outside the line of defense, with the majority located inside. The houses, at any given time, were probably a mix of construction styles including both surficial and shallow pit house types, and all were probably earth covered. The community probably consisted of more than 200 individuals at the time of its occupation. During any given year, the village was probably occupied continuously for a period of several months, most likely during fall, winter, and early spring seasons, and this pattern probably continued over the course of several years.

IMPACTS TO THE SITE AND HIGH INTEGRITY

Menoken Village has a high degree of integrity. Most known impacts to the site are demarcated on Figures 2 and 3 and can be seen in Figure 4. A narrow strip of land within the southern margin of the State Historic property and the proposed landmark area was apparently cultivated until the time the site was purchased by the state and was fenced in 1937 or 1938. The northern edge of the presumed cultivated area is indicated by the "ridge" marked on Figure 2, also visible in Photo 1. This cultivation line intersects the southern edge of the second bastion loop in the fortification ditch. Impact by cultivation to the primary Late Plains Woodland component at the site is considered to be minimal.

The next most extensive impacts to the site are from testing and excavation by archeologists since the 1930s. Old areas of disturbance, as well as the recent excavations, are all shown on Map 3. The largest early excavation, House 1, completed by Thad. Hecker in 1939, was never backfilled and is visible as a large, crater-shaped depression in the western portion of the site (Photo 1). Hecker's 1938 excavation of the palisade at the western-most bastion loop was apparently recontoured and backfilled, and is not visible today. A few other apparently disturbed areas, small in size, are shown on the map. Notable are historic trails, visible on the surface and in geophysical data (Figure 4); impacts from the trails are minimal, however, as they penetrate in most places well less than 15 cm below surface. The 1998 and 1999 investigations in the site have been backfilled and revegetated. It is estimated that no more that 10% of the dwellings within the village have been excavated, and that less than 5% of the total site occupation area containing significant archeological remains has been disturbed by any combination of processes.

PREVIOUS INVESTIGATIONS AND DOCUMENTATION OF MENOKEN INDIAN VILLAGE SITE, WITH SPECIAL REFERENCE TO ITS CURRENT NATIONAL HISTORIC LANDMARK STATUS

Menoken Village was discovered and sketch mapped by Walter D. Powell in May and June of 1936 (Powell 1936). Powell sketched approximately 20 house depressions as well as the fortification ditch. The village and adjacent land were purchased by the state of North Dakota in February 1937 and have been a protected archeological resource ever since.

The first test excavations at Menoken Village were conducted on July 1, 1938, by Russell Reid, Oscar Will, and four graduate students from the Columbia University expeditionary team under the direction of W. Duncan Strong (Weiant 1938). Menoken was one of several locations where

minor work was conducted by Strong's team prior to major excavations at On-A-Slant Village during the same season (see Strong 1940). This group dug test pits in three house depressions, examined five cuts along the eastern cutbank, trenched across the largest lodge depression (House 1) which lay in the southwestern part of the site, tested the fortification ditch, exposed a short section of palisade interior to the ditch, and tested an area outside the ditch.

Later in July 1938 as well as in 1939, Thad. Hecker expanded on the work of the Colombia team. He exposed and mapped a much larger section of the palisade, confirmed burning of the palisade in multiple locations, and deepened the trench through the House 1 depression (Hecker 1938). The following field season Hecker (1939) completely exposed the floor of the same house, with the results discussed in a previous section (Figure 6). Records and documentation for the 1938-1939 work are very scant; the palisade and lodge excavations are described in summary fashion in Will and Hecker (1944:11-15). All available artifacts recovered from the 1938 and 1939 work are housed at the North Dakota Heritage Center under a single accession number. No distinction can be made in this collection among specimens from several different excavations and from the surface of fields covering perhaps 30 acres around the village proper.

Much of the early work at Menoken Village was focused on demonstrating that it was the specific Mandan community visited by the French explorer, La Vérendrye, who in A.D. 1738 made the first recorded contact between Europeans and Plains Village peoples residing along the upper Missouri River (Smith 1980). There were many advocates for this dramatic interpretation of Menoken Village, although Will and Hecker's published statements about the village and its archeology (1944:4, 79-80, 123) are at times direct, vague, and contradictory regarding this point. Archeologist Preston Holder (1963) accepted Menoken Village as the La Vérendrye village without serious question in his discussion of Menoken as a site of "Exceptional Value" relative to the National Historic Landmark theme titled "Contact with the Indians." As a direct result of Holder's endorsement of Menoken Village as the La Vérendrye expedition contact site, the U.S. National Park Service designated Menoken Village a National Historic Landmark property in 1964.

In recent years, many other scholars have reserved judgment on the position and historical importance of the site. A review and update of the National Historic Landmark nomination conducted by National Park Service archeologist Ronald Corbyn and historian Cecil McKithan (1975/1979) emphasized the lack of firm information about the site and the lingering controversy surrounding its place in history. At about this time, W. Raymond Wood (1982:331) referred to Menoken as an "unknown quantity." In a more in-depth review of the basis for National Historic Landmark status for the site, Jake Hoffman (1982) reexamined site collections, records, and relevant documents in the context of a much-expanded corpus of Plains Village archeological information. He concluded (1982:11-12) that rather than being post-contact in age (and a candidate for La Vérendrye's contact point), Menoken was in fact prehistoric in age and was in all likelihood assignable to the Initial variant of the Middle Missouri tradition (IMM). This assignment and age were consistent with the majority of artifacts in the extant site collection from Will and Hecker's work as well as with discovery of other IMM sites in locations well removed from major rivers in South Dakota. In 1985, Hoffman updated the National Register of Historic Places Form for Menoken Village (a.k.a. Menoken Indian Village). He noted that the site was still of national significance, but for reasons other than those that led to its original

designation as a Landmark. Hoffman indicated that the preservation and integrity of the site were excellent, marred only by the unbackfilled House 1 excavation (Hoffman 1985).

Analysis in 1996 performed by Paul Picha and Fern Swenson (1996) marked the beginning of current research at Menoken Village. They conducted a new analysis of the site collections made during the 1930s and produced a 15-cm-interval site contour map using conventional optical mapping equipment (a portion of this map is used as Figure 2, herein). Sixteen definite or possible house depressions were accurately located on this map through a combination of air photo study, on-the-ground examination, and subsurface coring with a one-inch soil probe (Picha and Swenson 1996:1-2).

In 1997, active research at Menoken Village was carried out by Kenneth L. Kvamme with a grant from the National Center for Preservation Technology and Training (NPS) to explore multiple geophysical survey technologies at a Plains Village site (Kvamme 1998). The following year, 1998, the University of Missouri-Columbia with PaleoCultural Research Group, conducted a field school in collaboration with the Kvamme team with support from the State Historical Society of North Dakota (see Ahler, ed. 1999). The geophysical team completed survey and re-survey of nearly the whole village using multiple methods (Figure 4). The 1998 fieldwork included detailed surface mapping, metal detector work, hand coring, and test excavations at three locations.

Fieldwork by the same team continued in 1999, focusing primarily on two house excavations as well as dispersed tests of specific geophysical anomalies (Figure 3). All of the excavation work, in both block areas and dispersed tests, led to more accurate interpretations of geophysical data, as reported by Kvamme (2001). The 1999 field program yielded a great deal of field data about architecture, stratigraphy within houses, and general distributions of artifacts observed during excavation (mainly features and plotted specimens). The history of Menoken Village, as well as results of the 1997-1999 field program, are reported in detail in Ahler, ed. (2003).