

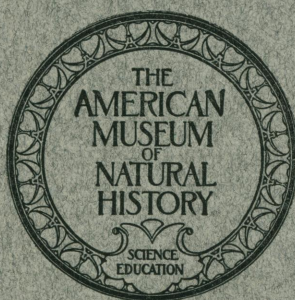
ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM
OF NATURAL HISTORY

VOL. XXII, PART VI

ARCHÆOLOGY OF THE MISSOURI VALLEY,

BY

GEORGE F. WILL.



AMERICAN MUSEUM PRESS
NEW YORK

1924

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INTRODUCTION.

The purpose of this paper is to give a general view of the archæology of the Missouri Valley in northern South Dakota and in North Dakota and of the drainage on either side of the valley which is locally known as the 'Missouri slope'. Within this area a field is presented for a large amount of valuable archæological work that should be accomplished in the near future.

Up to the present the undertakings in this field have been very few. Most of them were in the nature of preliminary surveys and there has been no attempt at systematization. One of the first of these undertakings was begun about 1900 by Mr. J. V. Brower of the Minnesota Historical Society, assisted by Mr. E. R. Steinbrueck of Mandan, North Dakota. Some of the sites within the area were explored, but the work was principally confined to the collection of artifacts.

Soon after this time, the North Dakota Historical Society was organized, and Mr. Steinbrueck was engaged in archæological field-work in behalf of that body for several years. In the course of these years, many valuable specimens were collected, some maps were made, a large number of sites were located, and a considerable mass of notes taken. No detailed exploration of any single site was made, however, and none of the notes taken have been published.

For several years after Mr. Steinbrueck severed his connection with the North Dakota Historical Society, that organization carried on some further work. These undertakings included the mapping of some five of the old village sites, the maps being published in the society's reports; and in conducting a party of the older Indians along the river, to learn what they could tell of the old villages. No report on this last work has been printed. In recent years, the State society has become the owner of several of the more notable village sites, but up to the present no systematic excavation and study has been done.

In the summer of 1905 the Peabody Museum of Harvard University sent out an expedition which did a considerable amount of connected work upon one of the old Mandan village sites, the Burgois or Double Ditch site. The results of this work were printed.¹

In 1911, in company with Dr. H. J. Spinden, then of the American Museum of Natural History, the writer spent a month along the Missouri, locating village sites and other points of archæological interest. The information obtained on that occasion will be embodied in the present paper, together with such observations as have been made during

¹Will, George F. and Spinden, Herbert J., "The Mandans: A Study of Their Culture, Archæology, and Language" (*Papers, Peabody Museum of American Archæology and Ethnology*, vol. 3, no. 4, Cambridge, 1906).

various trips along the Missouri and through the country back from the river, on several visits to the Fort Berthold Reservation, and such facts as have been elicited in conversations on the subject with a number of individuals.

In the fall of 1919, with Dr. Spinden, some ten days were spent in a rather careful survey of the sites below Heart River. Several maps were made and small collections of pottery and other artifacts were taken from the various sites. New material obtained at this time is included in or appended to this paper.

The drawings are all the work of Dr. H. J. Spinden, who also assisted in much of the work involved in the preparation of this paper.

Dr. Melvin R. Gilmore of the North Dakota Historical Society and Mr. George E. Hyde of Omaha, Nebraska, have read the manuscript and assisted with advice and comment. Notes, embodying the comments of both of these men, will be found appended on many of the pages.

ARCHÆOLOGICAL FEATURES.

The objects and sites of archæological interest occurring in the upper Missouri area may be roughly divided into five classes:—

1. Boulder effigies.
2. Tipi rings.
3. Mounds, distinct from those of the village sites.
4. Miscellaneous: cairns of various sorts; commemorative marks; eagle-pits; sacred and traditional sites; various sacred natural objects; and burial sites.
5. Old village sites.

Some of these classes are but poorly represented in this region, the village sites, in point of numbers, of relative importance and interest, standing far above any of the others.

Boulder Effigies. Boulder effigies have been generally described by Thomas, who gives a number of instances of their occurrence further south. They are attributed to the Dakota, or Sioux, and one would naturally expect to find them of frequent occurrence in the trans-Missouri country, the home of this people during the last century and a half. Up to the present, however, only two boulder effigies have been noted in this region, west of the Missouri, both apparently depicting turtles.¹

One of these was found on a low hill on the south side of the Cave Hills, in South Dakota, just south of the state line.²

The other effigy was found in Oliver County, North Dakota, by a party sent out by the State Historical Society. This effigy was carefully taken up and placed in the State Capitol grounds, at Bismarek, where it may now be seen. It is described in the society's reports.³

Tipi Rings. Tipi rings occur with considerable frequency over all of this area, sometimes large numbers together, but often only one or two in a place. There are two forms of the tipi ring—that marked by a circular depression in the sod, and the other form made up of a circle of small boulders, which are supposed to have been used for holding down the edges of the tipi. The latter is the most common, as the rings formed

¹Since the effigies in Wisconsin and eastern Iowa are generally attributed to the peoples of the Winnebago group, in which were included the Oto, Iowa, and, by some, the Mandan, all of which tribes are supposed to have migrated westward through the region in which most of the boulder effigies occur, there would seem to be less reason for supposing that these effigies were the works of the Dakota, who do not appear to have been effigy-builders in their old home on the upper Mississippi, than for assuming these works to be the outcome of an attempt on the part of the peoples of the old Winnebago group to continue during their westward migration their old custom of effigy-building, the use of boulders instead of earth in this work being the result of the less settled life they led after they began their movement toward the Missouri.—George E. Hyde.

²Will, George F., "Some Observations made in Northwestern South Dakota" (*American Anthropologist*, N. S., vol. 11, pp. 257-265, 1909), 262-263.

³See *Reports of the North Dakota Historical Society*, vol. II, 685.

by cutting out the sod and banking it up against the sides of the tent are much sooner effaced.

It is possible that a curious group of depressions, described in a previous paper,¹ belongs to the tipi ring group. This site consists of some thirty or forty rings on a hill, the rings being from six to ten feet in diameter—rather small for tipi rings, but possibly representing an excavation for some purpose within the tipi.²

Mounds. The Upper Missouri valley is not rich in mounds aside from those which occur in connection with the village sites. Further to the north and east, the mounds are of more frequent occurrence. A number of mounds resembling very closely those across the border in Manitoba (attributed to the Assiniboin), occur along the Mouse River, in North Dakota.³ Further south, the North Dakota Historical Society has located a number of similar mounds on the upper waters of James River, and mounds of a similar character have been reported on the Cheyenne River, near Valley City, North Dakota, and in the Coteau du Missouri near Streeter, North Dakota.⁴

Along the Missouri, however, the only mounds of this nature so far reported are on the banks of Apple Creek, near Bismarck, North Dakota. These have been described in a previous paper.⁵ Some of these mounds recall certain of the Wisconsin mounds in size and shape.

One other mound form might be mentioned here, for, although it occurs, so far as known, only in connection with a village site, it appears to be independent of the actual village remains. The only example of this type so far investigated occurs in conjunction with an old village, considered as Mandan by the Dakota, located on the south bank of Cannonball River and not far from its mouth. This mound, designated

¹Will, G. F., "Some New Missouri River Valley Sites in North Dakota," (*American Anthropologist*, N. S., vol. 12, 58-60, 1910), 60.

²The Cheyenne traditions state that the lodges their people made when they lived east of the Missouri were very small. They describe several types of lodges used at different periods, most of which appear to be merely variants of a common form. In the earlier period, they lived near a lake in a tall-grass country and made small lodges of poles covered with mats; in winter, they made large bundles of long grass and piled them up around the edge of the lodge for warmth. Later, when we may assume, they moved into the short-grass plains of eastern North Dakota, they speak of making similar small lodges, covered with skins, and as they had no tall-grass to make into bundles and pile up around the walls of the lodge in winter, the natural thing for them to have done would have been to excavate and pile up the sod around the lodge. They speak of living in 'dug-outs,' which they do not describe in detail, but the term would fit well a small lodge with the floor excavated and the sod piled up against the wall outside to give warmth. These lodges were all very small, such as could be transported by dogs.—George E. Hyde.

³Thomas mentions similar mounds on Red River, from Grand Forks northward, and Professor Montgomery informed him that the same type of mound is found in Benson, Ramsey, and Walsh counties, North Dakota, which would seem to form a more or less defined line of these mounds from Grand Forks to the Mouse River. See Thomas, Cyrus, "Report on the Mound Explorations of the Bureau of Ethnology" (*Twelfth Annual Report, Bureau of American Ethnology*, Washington, 1894).

⁴Will, George F., "An Unusual Group of Mounds in North Dakota" (*American Anthropologist*, N. S., vol. 23, pp. 175-179, 1921), 175.

⁵"A New Feature in the Archeology of the Missouri Valley" (*American Anthropologist*, N. S., vol. 13, 585-588, 1911).

as a sun mound by the Dakota, was opened and partially excavated by the North Dakota Historical Society in the summer of 1915. No report on the operations has been printed, but it is known that several interesting finds were made. So far as can be gathered from the rather hazy answers to questions asked of several Mandan, such mounds were frequently built near Mandan villages and had some deep religious significance not yet definitely revealed. A similar low mound was pointed out near the old Fort Berthold village site.¹

Miscellaneous Features. Of the miscellaneous features of archaeological interest there are many within this area. Cairns of rock occur frequently and are apparently of several classes. In the region west of the Missouri and extending to the Bad Lands, large rock cairns are frequently noticed on the tops of many of the highest hills or buttes. Several of these have been described in a previous paper.² They were probably built by the Dakota, some of whom say that they mark points whence good water can be seen.

Another type of cairn, not so frequently seen, appears to be commemorative in its nature. The only one of these definitely described occurs on the edge of the lower village site near Sanger, North Dakota. Mr. Sanger, the first settler in the vicinity, tells of visiting the village site in company with several Indians of the Fort Berthold Reservation. As they went along, each Indian picked up a small stone and when the party reached the cairn each individual carefully placed his stone on the pile. The Indians told Mr. Sanger that they did this in memory of their ancestors who formerly lived there.

Still another type of cairn occurs occasionally on the hills in the neighborhood of the old village sites. These are smaller and less conspicuous and are unquestionably the 'minaki' or individual piles of stones so frequently mentioned by the Mandan as being erected by young men at their places of vigil.³

Although not exactly a cairn, we will here include a most unusual object which occurs on the top and about at the center of a medium high hill of some length, about four or five miles west of the Missouri and west of the Square Buttes, in Oliver County, North Dakota. This is known locally as Ring Hill. It consists of a circular wall of stones, some 15 to

¹I have had some suggestions from Indian sources which seem to hint that this mound at Cannonball may have been an "astronomical observatory" by which the times of equinox and solstice were determined.—M. R. Gilmore.

²"Some Observations made in Northwestern South Dakota" (*American Anthropologist*, N. S., vol. 11, 257-265, 1909).

³The Omaha made commemorative marks at their places of vigil by denuding a circular spot of turf, which clearing they re-visited and re-cleared every year. I have seen such circular cleared marks of individuals of the Omaha kept as late as 1906.—M. R. Gilmore.

20 feet in diameter, and of a present height of about 3 to 4 feet. The interior is roughly paved with boulders. There is a similarly paved walk or approach, from the south, some 30 to 40 feet long and 3 or 4 feet wide, widening toward the ring and terminating against the wall in what may have been a rough step. There appear to be several figures traced out in boulders and leading out from the circular wall, but this point could not be definitely determined, as the top of the hill is so thickly strewn with small natural boulders. It is certainly a very unusual work, and, so far as can be determined, there is but one explanation of its purpose. This occurs in the account Alexander Henry has left us of his journey to the Cheyenne village with the Gros Ventre and Mandan. He states that a certain hill, some distance south of Fort Clark, and apparently in the same vicinity as Ring Hill, was considered very sacred by the Indians. Here the expedition halted for some hours, while all the people sang and prayed and the medicinemen went through certain ceremonies. He makes no mention of any structure on the hill. If his account is not a reference to the Ring Hill site, all that may be stated is that, so far, no information at all concerning this site has been collected.¹

An interesting commemorative feature has come to light recently. On the level plain to the northeast of the old Fort Berthold village, and very close to it, may be seen a number of huge hoof marks, each two feet across, and formed by the complete excavation of the sod in the figure of a horse's hoof. These hoof marks form a regular trail which starts near the village and proceeds about 150 yards to a point marked by a larger excavation, then returns, on a more southerly line, for about the same distance toward the village. Inquiry among the Indians elicited the story of these curious marks.

We quote here Dr. Gilmore's account:—

There exists a monument to the memory of a Mandan hero which has never before been described and published. The following account is from information given by several persons of the Mandan, Hidatsa and Arikara tribes. The location of the monument is near the site of "Fish-hook Village" on the north side of the Missouri River some twelve or fifteen miles east of Elbowoods.

During the middle part of the 19th century the three tribes, Arikara, Hidatsa and Mandan, lived together in alliance against their common enemies. Their

¹Possibly a ceremonial pound for calling the buffalo. George Bent told me that when the Cheyenne were all on foot in early times they often had difficulty in getting near the buffalo, and there were medicinemen whose special duty it was to call the buffalo near the camp by means of ceremonies. He believed they built a ceremonial buffalo pound, with wings or walks extending out from the enclosure. These pounds were not for actual use, but for ceremonial purposes only.

Dr. A. J. Comfort describes a hill on the road between Fort Wadsworth and Fort Stevenson, with sides paved with buffalo leg bones; from this central paved area walks or paths formed of similar leg bones led out for several hundred feet in different directions. ["Mounds near Fort Wadsworth, Dakota Territory" (*Smithsonian Report for 1871*, 389-402, Washington, 1873), 398.] George Bent thought this arrangement of buffalo leg bones might be one of the old ceremonial figures, intended to represent a pound, and used by the medicinemen in attracting the herds.—George E. Hyde.

chief enemies were the Dakota. So these three tribes built their three villages adjoining, making one compound village of three wards. The village lay upon a well-drained terrace of the Missouri River, while their farms were laid out in the fertile alluvial "bottom" along the river both above and below the village. To the north of the village site lies a range of hills.

The enemy many times made raids upon the village. They would approach under cover of the hills to the north and then steal close upon the village through the course of a ravine which skirted the northeast and north sides of the village.

About sixty-six years ago such an attack was made by a war party of Dakota. Of the defenders of the village, two young Mandans, brothers, named Lefthand and Redleaf, had been dismounted and their retreat cut off by the enemy. A brother of these two, Whitecrow by name, saw the danger of Lefthand and Redleaf and rode out to their assistance. Lefthand was killed and Redleaf was defending the body from a Dakota who was trying to take the scalp. Redleaf shot at the Dakota and missed him, the bullet going over the enemy's head and striking into the ground beyond him, the enemy being crouched low at the time of the shot. Whitecrow rode in a circuit beyond these combatants and held off the attacking party of the enemy. He killed the Dakota who was engaged in combat with his brother Redleaf. Then Whitecrow picked up Redleaf upon the horse with himself and carried him safely back to the village.

After the enemy had been driven away the Mandans went out and marked the course in which Whitecrow had ridden to his brother's rescue, the spot where Lefthand had been killed, the spot where Redleaf had made his stand, the spot where the Dakota was killed, and the spot where Redleaf's bullet, fired at the Dakota, had struck into the ground. The method used for marking these places was by removal of the sod, leaving holes in the ground. To mark the course of Whitecrow's horse the sod was removed in horsetrack shaped sections consecutively from the point of advance from the village round the place of combat and returning to the village. The horsetrack marks were made about two feet in diameter. All these marks commemorating the entire action, which took place about the year 1853 are still plainly evident, being renewed whenever they tend to become obliterated by weathering and by advancing vegetation. March 26, 1919.

The making of these commemorative marks in honor of this man had a ridiculous sequel. On a drive with an Indian along the old trail, from the south side of the Missouri near Elbowoods to Hebron, North Dakota, about ten miles south of the river, my attention was directed to a pile of stones on a low knoll, not more than forty yards from the road. On closer examination a line of stones, spaced about three feet apart, was seen, leading up to the heap of stones. This seemed to bear the ear-marks of an interesting archæological find. Then came the story.

It seems that the hero of the episode at the Fort Berthold village had a brother of less renown than himself. Many years ago, as this man was traveling along the trail, he observed an antelope at the point now marked by the pile of stones. The animal was lying down; the range was ridiculously short. The man stopped, seized his gun, and fired; but the

antelope continued to recline calmly on his knoll. Several more shots were fired with the same result; and then, to the Indian's chagrin, the antelope, perhaps finding the vicinity too noisy for a sound nap, arose and walked away. In some way this affair became known, and the young men of the reservation carefully placed the stones where they now are to be seen, as commemorative marks, in imitation of the hoof marks made in honor of the more famous brother. Often did the butt of this bit of Indian humor remove and scatter the stones; but just as often were they carefully replaced by the young men, and now they will probably remain undisturbed for many years.

Widespread throughout the region—along the bluffs of the Missouri and its tributaries, in the Bad Lands and among the scattered hills and buttes—are old eagle pits, wherein the eagle hunters concealed themselves under a covering screen of sticks and sod upon which was laid a bait of meat. Here the hunters seized the eagles by the legs, as they came to feed, and plucked their highly esteemed tail feathers. Usually a litter of small sticks in the bottom of the pit marks the remains of the covering screen.

For the reason that all of the Siouan tribes of this region used the tree or scaffold method of burial, there are few graves to be found, except in the immediate vicinity of old Arikara village sites. This people always buried their dead in the ground.

One unusual burial has, however, been observed. This has been described in a previous paper,¹ and occurs near the unusual mounds above mentioned, on a point of a high bluff overlooking Apple Creek from the south. Apparently a number of individuals were here buried in a very small area.

Another unusual feature in the region are the carvings on the walls of the entrance chamber to the large cave in Cave Hills, South Dakota. These carvings are very numerous and rather elaborate; but as they are done in very soft sandstone many of them have disappeared. They are described with illustrations in a previous paper.² As the Cave Hills country was frequented as a hunting ground by both the Village Indians and the Dakota, it is difficult to say whether these petroglyphs should be ascribed to one or the other peoples, or to some earlier dwellers in this region.

Some six miles south of Elbowoods on the Fort Berthold Reservation, and on the south side of the Missouri, is a fertile bottom overlooked

¹"A New Feature in the Archeology of the Missouri Valley," (*American Anthropologist*, N. S., vol. 13, 585-588, 1911), 587.

²"Some Observations made in Northwestern South Dakota," (*American Anthropologist*, N. S., vol. 2, 257-265, 1909).

by a narrow bench, which holds an important place in Mandan and Hidatsa tradition. This place is the original seat of the Grandmother or Old Woman Who Never Dies. Along the edge of the bench is a narrow slough, running into the Missouri, which is rendered into English in the old stories as the "Short Missouri." On the low bottomland the Grandmother is said to have had her vast cornfield in which her laborers, the deer and blackbirds, carried on the work. On the edge of the bench, and at present in the dooryard of James Holding-eagle, is a perfect earth-lodge circle some sixty feet in diameter. There are no other lodge rings anywhere in the vicinity, and this one is believed by all the older people to be the remains of the Grandmother's solitary abode.

Natural Objects of Veneration. This completes the list of archaeological miscellanies in the region, so far as they have been observed. There is a large class, not exactly archaeological, but bearing some relation to archæology, of various natural objects which are much venerated and which play an important part in the traditions of the region. First in this class come several sacred stones or rocks.

Best known of these, perhaps, is the Standing Rock, for which Standing Rock Reservation is named. This appears to have been an Arikara 'medicine' long before the Dakota came to the Missouri. In 1804 it was located on the east side of the river, on the upper course of Spring Creek. This rock has been mounted on a permanent base and now stands on a hill near Fort Yates, North Dakota.

On the Fort Berthold Reservation there are at present three sacred rocks which have come under observation. One of these stands near the door of the Arikara earthlodge dance house on Beaver Creek. It is kept wrapped in cloth with only a small portion exposed to the view. This rock has the appearance of an ordinary granite boulder. Arikara tradition says that it represents the Standing Rock stone. A second and very similar stone lies in the dooryard of James Holding-eagle, near the Grandmother's lodge. It was, however, only recently moved there from a point not very far away. This stone, while possessing some interest to the local tribes, is said to be especially esteemed by the Crow. Whenever they visit the Reservation they take occasion to see the stone, usually leaving with it a present of cloth, which they wrap around it, or of coin, which they place under it. This stone is also said to have fallen from the skies although it, too, appears to be an ordinary granite boulder.

Recent inquiries have elicited the information that this stone is connected with the well-known story of the girl who married the man from

the sky where she went to live with him. She later attempted to return to the earth, and her husband, discovering her hanging from the cord of buffalo hide, cast down a stone which crushed her to earth. The stone we are describing is declared to be the one which killed the woman.

The third rock on this Reservation is rather different in its nature. It was not visited, but its location was given as about seven miles northwest of the Grandmother's lodge circle. It is on a high ridge and is described as a large rock embedded in the side of the hill, with a large flat surface exposed. According to the story, the Grandmother frequently sent visiting Hidatsa to this stone, on which occasions there were always prophetic pictures visible upon it. There are a number of tales detailing various prophecies made by this rock, and it is believed that pictures may even yet be seen on its surface at times.

Of other named and esteemed natural objects in the region there are, of course, many, each having its own story. Only a few of these have as yet been investigated, however. In the vicinity of the Grandmother's lodge, so full of objects important in tradition, is also Red Butte. This is within a half mile of the lodge ring, toward the south, and is known as the Snakes' House. Several stories are told of the visits of the culture-heroes to the interior of the Snakes' House and of their struggles with the dwellers therein. It is an interesting fact that this butte really is a den of rattlesnakes, two white men having killed well over one hundred snakes there in one afternoon in 1914.

The big cave in Cave Hills is, of course, held in much veneration, as the elaborate carvings about its entrance show. Still another traditionally important orifice is the hole located in the top of Kill Deer Mountain. This is a round opening in the cap rock, some three or four feet across, leading down into a fissure of unknown depth. According to the Fort Berthold Indians this is the opening from which the first buffalo originally emerged upon the surface of the earth.

East of the Missouri, some thirty or forty miles distant from it stands Dog Den Butte, one of the most noticeable and prominent elevations of the Coteau du Missouri in North Dakota. This butte plays an important part in many stories, and is prominent in one of the oldest of the Mandan-Hidatsa traditions as the place in which Coyote Chief shut up all of the game animals of the world, in an attempt to starve the people.

Besides these natural objects and embellished natural objects noted above, there are many other similar things scattered over the state of North Dakota which have never been noted or described. There are stories of several carved boulders in different parts of the state. There

are hills and lakes with interesting traditions attached to them, some of which go by names which can be traced back to these old stories of which the present generation knows nothing. A striking case of the corruption and final loss of old names occurs in connection with a creek on the Fort Berthold Reservation. This creek now has two names—Rising Water, and, more commonly, Lucky Mound or Lucky Mountain Creek. Examination of the old accounts and old maps shows the name, L'eau qui Monte, as being the original translation by the French of the Indian name, hence Lucky Mound, of which no one in the locality can at present offer any explanation.

There are traditions connected with many other natural features, from Elbowoods down to Grand River, and there are specially named natural objects, such as the butte, into which Black-tail Deer, in one of the tales, disappeared. The butte is just south of Little Heart Creek. There is also the Holy Hill of the Mandan, near Cannonball, the hill on Knife River, where the little people live, and many others of which we have not even heard.

Enough has been presented in the preceding pages to show that a large amount of material lies in this region for further investigation and study. It is to be hoped that this work will soon be taken up.

Village Sites. Let us turn now to the largest and perhaps most interesting class of archæological material of the region—the old earthlodge village sites, a field, which if properly and systematically worked would yield us almost complete data on the early culture and history of some six or seven tribes of the upper Missouri Valley.

Village sites are, of course, scattered along the Missouri from the mouth up, and they extend along its course to the mouth of the Yellowstone, frequently the territory of one tribe overlapping that of another. The section, however, which it is proposed to discuss here, is practically bounded on the south by Grand River, in South Dakota, although some mention may be made of sites farther down.

The tribes which have been directly concerned with the building of earthlodge villages, within the bounds above mentioned are: the Arikara, the Cheyenne, the Mandan, the Hidatsa, and the Amahami.

The Arikara, of the Caddoan stock, and at one time a part of the Skidi Pawnee, quarreled with that people and separated from them very

early in the eighteenth century.¹ According to their traditions they were at that time a very powerful tribe. After leaving the Skidi they established themselves on the Missouri and gradually moved northward along that stream. Old Arikara sites are located near the mouth of Bad River, where they were visited by the younger Vérendrye in 1743², near the mouth of Cheyenne River, where Trudeau³ found them in 1795, about the mouth of Moreau River, and above the mouth of Grand River, where they were visited by Lewis and Clark in 1804.

The Arikara villages near Bad River appear to have been abandoned about 1770 because of the hostility of the Dakota, who at that period began to press to the Missouri from the head of the Minnesota River. Personally, I believe this Teton movement to the Missouri was the direct outcome of the procuring of arms and ammunition from the British traders. This trade began among the Sioux about 1765, and a few years after that date we find the Sioux terrorizing the Village tribes on the Missouri.

The sites near Bad River that are probably Arikara are, as far as I can learn, the following:—

1. "Ancient Indian Village," on the west bank of the Missouri, sixteen miles below Bad River and one mile below East Medicine Knoll Creek. This site is so marked on Missouri River Commission map, Sheet XL.
2. "Ancient Indian Village," marked on the same sheet one mile above East Medicine Knoll Creek on west bank of the Missouri.

¹Perhaps early in the seventeenth century, for the Omaha and Ponca state that when they reached the Missouri, certainly long before the year 1700, the Arikara were already there.

There does not appear to be any trace of early Arikara residence in northern Nebraska. Lewis and Clark mention a "Pania" village site on the Niobrara River, and some have supposed this to be an Arikara village, but this is clearly an error, for which Evans is responsible. On Evans' map the modern Ponca River is set down as Pania River and the Ponca village is set down as Pania village; hence Pania Island in the river near this village and Pania House, sometimes called Pawnee House, on the east bank near Randall, South Dakota.

The Arikara are spoken of by La Harpe, 1719, who places them on the Missouri 120 leagues south southeast from "seven famous villages," which may have been the Mandan villages of the old Heart River group. The distance given, 120 leagues (300 miles) would, counting from Heart River, place the Arikara some 20 miles below Bad River, where they probably were located at that time. La Harpe also speaks of the Arikara relations with the *Padouca*, a people whose southern bands lived in western Kansas and Nebraska at that period, and whose northern bands, known as the *Gens du Serpent*, were in contact with the Arikara and other tribes on the upper Missouri.

Renaudière, 1723, places the Arikara ten leagues above the Omaha, with whom they were allied, but his location of the Omaha is not definite enough to enable us to locate the Arikara villages.

At this early period the Arikara, like their kinsmen, the Pawnee, were captured and sold into slavery by the tribes on the Mississippi as well as those in the plains. Thus Charlevoix had a Pani-Ricara slave, evidently purchased on the Mississippi, and Mallet in 1739 found Arikara slaves among the *Padouca* and *Ietan* on the New Mexican frontier. (De la Harpe, Bénard, *Relation du Voyage de Bénard de la Harpe. Découverte faite par lui de plusieurs Nations situées à l'ouest*, in Margry, Pierre, *Découvertes et Etablissements des Français dans l'ouest et dans le sud de l'Amerique Septentrionale* (1614–1754). *Sixième Partie. Exploration des Affluents du Mississippi et découverte des Montagnes Rocheuses* (1679–1754), Paris, 1886, 292–293. See also Mallet, in Margry, *ibid.*, and Charlevoix, P. F., *History and General Description of New France*, vols. 1–6. New York, 1866–1872.—George E. Hyde.

²Margry, *ibid.*, vol. 6, 598–611.

³Collections, *Missouri Historical Society*, vol. 4, no. 1, 9.

3. "Indian Village" marked on the same sheet on west bank of Missouri four miles above Bad River. This is evidently the site mentioned by Robinson, who states the sites has a double ditch.¹

4. "Site of Indian Village and Fort" marked on Sheet XLI on west bank of Missouri seven miles above Bad River.

There must have been other villages in this group, and some of them are probably mentioned in the South Dakota Historical Collections.

The Arikara villages near Cheyenne River appear to have been built after the Bad River group of villages was abandoned. According to Lewis and Clark there were five villages in the Cheyenne River group, but this number does not, perhaps, include all of the sites. The sites in this group as far as I have seen them recorded are:—

1. "Site of Indian Village" on Sheet XLI, on west bank of the Missouri nineteen and one-half miles above Bad River. This is clearly the first Arikara site noted by Lewis and Clark, the one on "No Timber Creek," modern Chantier Creek. On returning down the river in 1806 Lewis and Clark speak of this site as "a large village on each side." This may mean there were two villages at this place. They state this village was abandoned in 1799. This is evidently the site that Brackenridge² and Bradbury³ describe in some detail.

2. "Site of Indian Village" marked on Sheet XLII, on the west bank of the Missouri near the lower point of Cheyenne Island, about five miles below Cheyenne River. This site was noted by Lewis and Clark and is evidently the first Arikara village of Trudeau, 1795.

3. The second village occupied in Trudeau's time, 100 paces above the first village.

4. Village on the south bank of Cheyenne River, at its mouth, which is marked on Sheet XLII as "Site of Indian Village and Fort." This site seems to have been noted by Brackenridge, and is marked on Lewis and Clark's map, No. 7 in Atlas.

5. "Site of Indian Village" marked on Sheet XLII on west bank of Missouri thirteen miles above Sheyenne River. Whether this was one of the group of Arikara villages or not we do not know, as the site is not mentioned by any of the early travelers.

The Arikara appear to have abandoned the last two of these villages in 1795, after Trudeau left them, for Evans in 1796 found the Arikara

¹Robinson says this site is described in the *Collections*, *South Dakota Historical Society*, vol. 3, 543.

²Thwaites, Reuben Gold, *Early Western Travels, 1748-1846. A Series of Annotated Reprints of some of the best and rarest contemporary volumes of travel, descriptive of the Aborigines, and Social and Economic conditions in the Middle and Far West, during the Period of Early American Settlement*, vol. 6, Cleveland, 1914, 107.

³Thwaites, *ibid.*, vol. 5, 126.

living ten leagues below the Mandan and Hidatsa. About a year later the Arikara joined the Sioux in an attack on the Mandan and Hidatsa and then moved down the Missouri. It was evidently at this time they built the villages above Grand River, though they appear to have re-occupied some of the older villages below, as Lewis and Clark state the Chantier Creek village was occupied in 1799, and the small village on La hoo catt Island was occupied in 1797.

In 1804 the Arikara had three villages here, above Oak Creek.¹ The lower village in this group was abandoned soon after Lewis and Clark returned down the Missouri in 1806; but the Arikara continued to occupy the two upper villages until they were attacked by Colonel Leavenworth's forces in 1823. Aided by the Dakota, Leavenworth drove the Arikara out and practically destroyed the villages. Part of the Arikara went up and joined the Mandan, while the great part of the tribe moved south and joined their kinsmen, the Skidi Pawnee, near the upper Platte. Among the Skidi they were not welcome, because of their troubles with the whites and their raids on the Cheyenne, with whom the Skidi were at that time attempting to make peace, so the Arikara left the Skidi and established themselves near the forks of the Platte. From this point they fled in 1835 on learning that a body of United States dragoons was marching in their direction. A few years later they returned north, arriving near the Mandan village in 1838, soon after that tribe had been almost destroyed by smallpox. The Arikara now possessed themselves of the larger part of the Fort Clark Mandan village, where they remained for nearly thirty years. Leaving here about 1860, they established themselves about opposite the Fort Berthold village of Mandan and Hidatsa, and a year or so later they crossed the river and united their village with the former one.

The vanguard of the Cheyenne came into North Dakota late in the seventeenth century and built a village in the great bend of Sheyenne River. Part of the tribe remained behind in Minnesota, and they were, perhaps, the people who built the village referred to by Comfort, near the head of Minnesota River in the northeast corner of South Dakota. The Cheyenne themselves have no detailed account of their migration to the Missouri; but according to Dakota tradition, which appears to be, in the main, trustworthy, it was the Cheyenne band that had lingered behind in Minnesota that first reached the Missouri. These people first built a

¹The villages above Grand River must have been built after the Arikara abandoned their villages near Hensler, North Dakota, allied themselves with the Sioux and attacked the Mandan and Hidatsa. These events occurred in 1796 and 1797, and the Arikara abandoned the Hensler villages in 1799, according to Clark.

village on the Coteau du Missouri, near the present town of Kulm, whence, after a short sojourn, they moved to the Missouri and built a village on Porcupine Creek, between the Arikara and the Mandan, about 1740. The other band of Cheyenne was driven from their village on Sheyenne River, and moving across the Missouri, built a village on the site of the present Farm School, below Fort Yates. During the eighteenth century, the Cheyenne, according to the Dakota, built at least four important villages on the Missouri: one near the mouth of the Little Cheyenne, one at the Farm School, one between Fort Yates and Porcupine Creek, and one on Porcupine Creek. All of these villages appear to have been abandoned by 1780, the tribe moving out toward the Black Hills and adopting the life of roving hunters. Part of the people, however, continued to plant corn down to about the year 1800 and, according to the Dakota, the Cheyenne maintained a settlement on Grand River, to which they returned after their hunts. Here they had their fields and a number of small earthlodges.

The Mandan are perhaps the oldest dwellers in the Missouri Valley in this region. According to their tradition, they reached the Missouri at the mouth of White River, in South Dakota, at a very early date, led by a great culture-hero chief, Good-Furred-Robe. Thence they moved up to Bad River, made a journey west to the mountains, and came back down White River, or Sheyenne River. Here part of the tribe remained, the rest moving up to Bad River again. This division gradually lost touch with the other one, which finally disappeared.¹ On Bad River the Mandan had their fields and were living prosperously when they were attacked by their first enemies, the Grass People.² After the first battle, the Mandan chief introduced several of the war ceremonies and societies. From Bad River the tribe gradually moved upstream, with

¹This reminds one very strongly of the Omaha-Ponca tradition. These two tribes (then one people) reached the Missouri between the Niobrara and White River at an early date. They moved up above White River and there crossed the Missouri. The Ponca moved out to the mountains and remained for some time, then rejoined the Omaha at the mouth of White River. As the soil at this point was not very good, the people now moved down the west bank of the Missouri into Nebraska. All of this occurred before 1700, apparently, as the French sources show that the Omaha were in Nebraska soon after that date. During this earliest period the Omaha-Ponca people are said to have had the common name Honga.—George E. Hyde.

²Grass People, or Vegetation, or Herbage People. According to a Mandan story the Mandan found enemies in their land first at Bad River. Here they found a woman killed by some enemy while working in her field. They prepared and went out to find and fight the enemy, defeating them, and from the conflict, the creek was choked with corpses, hence, Bad River. The survivors of the enemy turned themselves into grass or other herbage, and so made off and escaped. So the Mandan called them Grass People or Herbage People. They afterwards came to know them to be the people who call themselves Dakota.—M. R. Gilmore.

long stops at different points, finally reaching Heart River,¹ where they built many villages and dwelt for a very long time. At Heart River the Hidatsa came to them, and here they were first visited by the whites: Vérendrye² and his party, 1738-1739.

It seems well to go into the movement of the Mandan rather carefully, taking into account the various items of evidence of different kinds which we have, comparing these items with such information as we have from the Indians themselves, and with the known existing sites. The written evidence is contained in the accounts of their various early visitors, more especially Alexander Henry, Lewis and Clark, and Maximilian. In comparison of these accounts, however, much caution should be used in treating the distances given by the various travelers. The land along the Missouri River is subject practically to a double set of measurements which vary widely in many cases, depending upon whether the reference is made to river channel distances or to straight line distances across the river bottomland. Thus, the present distance from Hensler to Mandan Lake is about five miles by road while by river it is nearly twice that far. From this it will be seen that distances as stated by travelers may be correct from one viewpoint, and absolutely incorrect from another.

Let us now try to trace the more or less historical epoch of the Mandan. In 1773, according to Mackintosh,³ they were still flourishing in the Heart River region, having nine to thirteen villages on the two sides of the Missouri with many thousands of warriors. Soon after 1780, however, they were severely attacked by the smallpox. The Dakota or Sioux, discovering the plight of their neighbors, then attacked them and destroyed two large villages on the east side, the largest being known as Ruptare. From this great village two men, one known as Fire and the

¹I have just found what appears to be the earliest reference to the Mandan villages in the Heart River group. La Harpe in 1719 visited the village of some Caddoan Indians on the Canadian River in Oklahoma and was given the following information:—

"That the Padoucas were a numerous nation whose villages extended very far toward the N. and N. N. W.; that the Spaniards were not allied [i.e., in contact] with all this nation and that when they went to trade with some distant village on the side of the Aricaras ("village escarté du costé des Aricaras"), they were often attacked by the Panis, enemies of the Padoucas. . . . That there were seven famous villages on the N.N.W. side of the Aricaras at a distance of 120 leagues, with whom they are allies. I believe the Aricaras were part of the 45 Panis villages." (Margry, *ibid.*, vol. 6, 292-93.)

A French league is about 2½ miles; 120 leagues equal about 300 miles. Bad River to Heart River according to Lewis and Clark's distances is 267 miles.

Vérendrye says the Mandan had six large fortified villages: Bougainville [*Mémoire sur la Nouvelle France* (1757), quoted in a footnote in Maximilian, Prince of Wied, *Travels in the Interior of North America*, Thwaites edition, vol. 2, 235] says there were seven. Lewis and Clark usually say six and then add nine in italics.

Big White told Clark in 1806 that there were seven villages when he was born in the Fort Lincoln Village about 1757 (*Original Journals of the Lewis and Clark Expedition*, New York, 1904, vol. 5, 346).—George E. Hyde.

²Report on the Canadian Archives, note A, no. 1.

³Quoted in Schoolcraft, H. R., *History, Condition and Prospects of the Indian Tribes of the United States*; collected and prepared under the direction of the Bureau of Indian Affairs, vol. 3, Philadelphia, 1854 (253).

the other, Belt, were the only survivors. The story of these two old men is still clear in the memory of James Holding-eagle who received it from his grandfather Moves-slowly, Mandan corn priest. Moves-slowly had it direct from the men themselves in his youth.

The surviving people on the east side now determined to move up river, and they established a village on the east side a short distance above Painted Woods and nearly opposite Sanger. Joseph Packineau¹ of Elbowoods recently gave the information that this site is still in existence.

Prior to this first move of the east side Mandan the Arikara had apparently been routed by the Sioux, and had gone up river and established themselves in two villages near the present Hensler, one to the southeast, the Greenshields site, and one about one mile north of Hensler on the bench.

The west side Mandan, now also diminished by smallpox, then decided to move and probably established the several villages in the vicinity of Sanger although one of these was at some period inhabited by the small Amahami tribe. Shortly after this, the east side people seem to have been again attacked and defeated by the Sioux. A vague tradition says that they then built the Scorched Arrow village at the mouth of Turtle Creek just below the present Washburn. There is, however, also a tradition to the effect that this was an Arikara village. No site can now be found at this point. If the Mandan stopped here at all the stay was short, and they soon moved up to Elm Point, just above the little area of Bad Lands and almost directly east across the river from the present Stanton, as well as about three miles diagonally across the river from the later location of Fort Clark. Here they built two villages, one about a mile above the other. These are both described by Alexander Henry,² although the upper one had been very recently abandoned at that time. These two villages were occupied until 1803 when the upper village coalesced with the lower one. Henry, as already mentioned, found them thus in 1804, and so did Lewis and Clark.³ Recent information obtained, shows that both these sites are still plainly marked and they will be visited in the near future. Shortly after 1805 the Ruptare or *east* side people moved over to the *south* side, and established still another

¹Packineau appears to be a corruption of the French name Patineau, his French ancestor.—M. R. Gilmore.

²Henry, Alexander, and Thompson, David. *New Light on the Early History of the Great Northwest*. Edited by Elliott Coues. New York, 1897. (vol. 1, n. 323).

³Lewis, Meriwether and Clark, William. *History of the Expedition under the command of Captains Lewis and Clark to the Sources of the Missouri thence across the Rocky Mountains and down the Columbia River to the Pacific Ocean performed during the years 1804-1806*. 4 vols. Edited by Elliot Coues. New York, 1893. (Vol. 1, 179 seq.).

Ruptare village some three miles above the Fort Clark site, near the present Deapolis. Here they still dwelt when visited by Maximilian and Catlin, and until the great smallpox plague of 1838 almost destroyed the tribe.

Meantime the west side people had also gradually continued their progress northward. From the vicinity of Sanger they moved up to a point a short distance below the Arikara villages and built a village, now identified as the Bagnall site. Either at or just prior to this time the Arikara had gone back down river. Several years later, in 1796 the Arikara returned to the old villages here for a brief sojourn, and found that the Mandan had moved on about three or four miles above them. This, according to direct line measurements, placed the Mandan in the vicinity of Mandan Lake where we have two sites now, close together on the east bank of the lake, and traditions of a large winter village in the timbered bottom below.

Apparently some trouble was experienced with both the Arikara and the Dakota while at Mandan Lake, and as the location did not lend itself well to defense another move was soon made. On this occasion two villages were again built, one probably at the present *Fort Clark Station*,¹ and another one on a promontory overlooking the river, about a mile or a little more above. This latter site is the historic Old Fort Clark Mandan village. From archaeological evidence and tradition it is clear that the lower site here existed as a village for only a very short time, and was soon merged into the larger one. The old Fort Clark village like Ruptare some three miles above it also survived till the smallpox of 1838. After this, the few survivors joined the Hidatsa, but some of the women remained in the old village with the Arikara. When the Hidatsa finally moved to Fort Berthold the remaining Mandan accompanied them and settled there with them in the last village built.

The Hidatsa, of kindred stock with the Mandan, but widely divergent in language and culture, claim to have come from under the ground, reaching the surface of the earth in the vicinity of Devil's Lake. The Crow were at that time a part of the Hidatsa. After emerging they built a large village near the lake and lived there for many years. At length four of their hunters, journeying westward, came upon the Missouri and saw the villages of the Mandan on the opposite bank. They talked with the Mandan, received a present of corn, and declared that they would return with their people in four days. This occurred near

¹Arikara tell me that they had a village exactly where Fort Clark Station now is.—M. R. Gilmore.

the mouth of Heart River.¹ The four days lengthened into four years, and at the end of that time, a vast host appeared opposite the Mandan village at old Fort Lincoln, and were ferried over in bull-boats by the Mandan.

The Hidatsa built a village near the Mandan and remained there for many years, learning corn-growing from the Mandan. There also the quarrel took place which resulted in part of the Hidatsa separating from the rest and moving westward. These people were the Crow of later times. The vicinity of Heart River becoming over-populated, at the suggestion of the Mandan chief, and by mutual agreement, the Hidatsa moved up to Knife River, whether in one move or by gradual stages is not told. Thereafter Knife River remained the seat of the Hidatsa, until the final removal to Fort Berthold, although a number of temporary movements were made by different segments of the tribe which resulted in the establishment for short periods of a number of villages farther north along the river. These we shall consider later. The last movement of this kind was made by the band of Crow-flies-high, after the tribe reached Fort Berthold, to a site near Fort Union, where the band remained many years, not returning to the reservation until about 1890.

The Amahami were apparently very closely related to the Hidatsa, with whom they lived for a great many years. According to tradition, they started originally from the shore of an eastern sea. Thence they went northward to a timbered country through which they traveled for a long time. When they finally emerged from the timber, somewhere south-east of Fargo, North Dakota, they built a large village and remained a long time. One day a party of hunters met some Hidatsa, and both parties were surprised that they were able to understand each other. The two tribes dwelt in close friendship and association for many years; when the Hidatsa moved to the Mandan country the Amahami soon joined them there. After that whenever the Hidatsa moved, they moved too. One tradition states that they lived in one of the villages near Sanger for a time.² Early white travelers found them in a village south

¹Clark, W. P., in the *Indian Sign Language* (Philadelphia, 1885) states that when the Hidatsa came to the Mandan the Arikara still lived below Fort Pierre. Their arrival was therefore probably before 1770, but the younger Vérendrye is supposed to have met the Crow (Beaux Hommes) west of the Missouri in 1742.

These Beaux Hommes are probably the same people that Joseph La France states were living about 1740 in the plains west of Red River, and east of the Missouri (La France, quoted in Hobbs, Hudson Bay, 1744). The Beaux Hommes of La France may have been a rear guard that lingered behind after the advance body of the people had passed beyond the Missouri. As the Vérendryes were near Lake Winnipeg before 1740, they must have known the people La France calls Beaux Hommes in their old home near Red River. La France is certainly trustworthy—his account of all the tribes near Red River, Lake Winnipeg, Assiniboin River, etc., is quite accurate.—George E. Hyde.

²October 23, 1804, Lewis and Clark camped on the west bank just below Pretty Point and noted just before camping an old village site of the Amahami on the north or east side of the river, evidently between one and two miles below Pretty Point. (*Original Journals*, vol. 1, 203.)

This village would be below the Mandan villages, where they lived prior to the destruction of their eastern village about 1793.

of Knife River, close to the Hidatsa. They were at that time very few in number and soon after became entirely incorporated into the Hidatsa tribe.

VILLAGE SITES LOCATED.

Having roughly sketched the story of the tribes who play a part in the archæology of the region, let us next make a summary of all the village sites so far located, in one way or another. All sites reported will be listed and a short sketch will be given of those which have been personally observed. The sites will be taken in order, proceeding up the Missouri from Grand River.

Grand River Arikara Sites. The first sites are the old Arikara villages above Grand River and a little above Oak Creek. These villages were occupied by the Arikara when Lewis and Clark visited them, and intermittently for many years thereafter. The first of these villages was on an island (modern Ashley Island) three and a half miles above Oak Creek; four miles above this island village were the two upper villages on opposite banks of a small creek which runs into the Missouri from the west.¹ We have not visited these sites and there does not seem to be any printed description of them as they appear today.

There are reported to be a number of other Arikara sites in this neighborhood, along the Missouri and extending a considerable distance up Grand River, but the exact number and location is still unknown, as far as any accessible account is concerned.²

¹The third or upper village of this group is shown on the Missouri River Commission maps, on Sheet XLV at mile 515 as "Ancient Indian Village." The other two villages of 1804 are not shown on this sheet.

²There are along the Missouri, both above and below Grand River, a number of old village sites, most of which may be considered as belonging to the Grand River group of Arikara villages. These sites are as follows:—

1. Village of eighty lodges on the west bank of the Missouri, 5½ miles below what Lewis and Clark term Otter Creek (present Swan Creek, Walworth County, South Dakota). Lewis and Clark state this was an Arikara village and had been occupied as late as the spring of 1804. This was perhaps a winter village.
2. Village of sixty lodges on west bank of the Missouri and south bank of Moreau River. This was a winter village, apparently occupied in the winter of 1803-1804, according to Lewis and Clark.
3. "Site of Indian Village and Fortification" marked on west bank of the Missouri, 10½ miles above Moreau River on Sheet XLV. (Not noted by Lewis and Clark and perhaps of later date.)
4. Village on Grouse Island (modern Blue Blanket Island).
5. "Site of Indian Village," marked on Sheet XLV on west bank of the river just above Blue Blanket Island. (Not noted by Lewis and Clark.)
6. First Arikara village of 1804, on modern Ashley Island, 3½ miles above Oak Creek. This village was abandoned before 1811.
7. Second Arikara village of 1804, 4 miles above the island village, on west bank of the river and south bank of a small creek.
8. Third village of 1804, on the north bank of the creek, just above the second village.
9. "Ancient Indian Village," marked on Sheet XLV on the west side of the river 4½ miles above the upper Arikara village of 1804. Not noted by Lewis and Clark.

These are probably all Arikara sites, but it is not likely that more than three of them were occupied at any one time.

On Sheet XLIV of the Missouri River Commission map is marked "Indian Mounds" on the east side of the Missouri and on the south bank of Swan Creek. This is a very interesting site, if it is an Indian village. So far as known, there is no other site on the east bank between the Nebraska line and the Cannonball River with the exception of the "Buffalo Pound" village at the mouth of Big Beaver Creek, said to be Mandan, although the Dakota claim the Cheyenne formerly had a village near Little Cheyenne River.

Cheyenne Site at Farm School. (No. 12.) Above the Arikara villages of the Grand River group there is a stretch of river of some twenty-five miles along which no village sites are known. At the end of this stretch of river we come to the site of the first old Cheyenne village, at the Farm School, on the Standing Rock Indian Reservation. We have not visited this site. According to Dakota tradition this village was built by the band of Cheyenne who came from the village on Sheyenne River, near Lisbon, North Dakota. As the Farm School was built directly over the old village, the site is probably almost obliterated.

Blackfoot Creek Site. Some three miles north of the Farm School, on the west side of the Missouri and on the south bank of Blackfoot Creek, is a site which was recently shown to Captain A. B. Welch of the U. S. Army by some of his friends among the Sioux, who stated that this was an old Mandan village. This site is also marked on the Missouri River Commission maps, Sheet XLVI, as "Ancient Village."¹

Slob Town and Porcupine Creek Cheyenne Sites. (Nos. 13 and 45.)

On October 14, 1804, Clark states:—

Immediately opposit our Camp on the L.S. I observe an antient fortification the walls of which appear to be 8 or 10 feet high (*most of it washed in*).

This site was on the west bank of the Missouri, below Four-mile Creek and near Fire Heart Butte, as nearly as can be judged. If there is a village site in this neighborhood, we have failed to find any trace of it.

A little less than two miles below Porcupine Creek, on the west side of the river, is a site (No. 45) which was recently located by Dr. George Bird Grinnell. This is, according to Dakota tradition, an old Cheyenne village. Above here, on the south bank of Porcupine Creek, is the best known of the Cheyenne village sites on the Missouri.²

Dr. A. McG. Beede, formerly Episcopal missionary at Cannonball, advised the writer, who had determined the position of this Porcupine Creek village some years ago, that the river had left no traces of the site.

¹*History of the Lewis and Clark Expedition*, vol. 1, 166.

²It seems to be impossible at the present writing to reconcile the statements made by various persons as to the Cheyenne villages along this part of the river. Dr. Grinnell heard of several traditional sites along here and visited three of them: the Porcupine Creek site, the site about two miles below Porcupine Creek, and the Farm School site. The Dakota claim there were other Cheyenne villages in this neighborhood.

Lewis and Clark passed along this part of the river on October 15th and 16th, 1804, and their camp on the night of October 15-16 appears to have been about a mile below the Porcupine Creek site. They state that they passed an old Cheyenne village on the west side of the river just before they camped for the night on October 15. This would appear to be the village Dr. Grinnell found, about two miles below Porcupine Creek. To add to the confusion, Ordway in his journal states that an old Cheyenne village was passed on October 15th some distance below camp. He states that after passing this village they passed a creek on the west side of the river, timbered bottoms on both sides of the river, and another creek on the west side, just above which they camped on the east bank. On the next day, October 16th both Clark and Ordway state in their journals that a second Cheyenne village was passed. This was apparently the site on the south bank of Porcupine Creek. From these journals it would appear that there were three Cheyenne villages, one, seen only by Ordway, some two miles below Fort Yates, and two others near Porcupine Creek. See Lewis and Clark, *ibid.*, 166-169 and the *Journals of Lewis and Ordway*, (*Collections, Wisconsin Historical Society*, vol. 22, 154, 155).

Dr. Grinnell, however, finds that the whole village is intact and the lodge rings very plain. This is the village built by the first band of Cheyenne to reach the Missouri from Minnesota according to Dakota tradition.

Buffalo Corral Site. The next site occurs on the east side of the river and a few miles higher up. It is that above the mouth of Beaver Creek, in Emmons County, North Dakota. This village is somewhat vaguely credited to the Mandan and is called the Buffalo Corral Village, as it is said that a long-remembered killing of buffalo by the pound method once occurred there.

Cannonball Site. (No. 14.) The next located site is on the high bluff marking the confluence of the Cannonball River with the Missouri. This site is on the northwest edge of the town of Cannon Ball and in area is fairly large. It appears to show at least two occupations, one over the other, and apparently was surrounded by several different ditches.

This site, as suggested by the Dakota, may be at least partly Mandan, and its size may be explained by supposing that this is the village at which the three tribes—Cheyenne, Arikara and Mandan—united for a year or two, for mutual protection from the Dakota, as is set forth in the traditions of several tribes.

In this vicinity, a short distance southwest of the site, is a hill known to the Dakota as 'the Holy Hill of the Mandans.' The reticence of the Mandan themselves with regard to this site is quite striking, and an explanation of it would be interesting.

Old Site not Visited. On the Missouri between one and two miles above the Cannonball is still another site, not visited by the writer, and not definitely credited to any tribe.

Fort Rice Site. (No. 15.) Again, on the west side of the river and on the southeastern outskirts of the town of Fort Rice, are the very indistinct remains of rather a large village which is now a plowed field. This site is somewhat uncertainly credited to the Mandan, according to Mr. H. C. Fish, who visited many of these sites with the North Dakota Historical Society expedition, when several of the older Fort Berthold Indians were with the party.

Glencoe and Livona Sites. (No. 60.) A site has been recently reported near Livona, North Dakota, on the east side.

A little higher up, on the east bank, southwest of Glencoe Post Office, and on what is known as the Shermer Place, is another site, not definitely established as belonging to any particular tribe, and two miles above it still another very indistinct site was recently found.

Huff Site. (No. 18.) Again, on the west side, just below the present village of Huff and on the edge of the bench, occurs another very striking site.

Eagle's Nose Site. (No. 43.) About two miles farther up we come to one of the most romantically situated and most interesting of any of the sites. The river along here runs south of east; a low bench extends back from the river for a variable distance, then breaks into a miniature Bad Land area and rises into the high range of hills called by Lewis and Clark the Eagle Nest Hills and reported by them to have been frequented for the purpose of catching war eagles. These hills are cut frequently by deep, timbered coulees. Perhaps two miles above Huff the bad lands come directly to the river bank, and one long and peculiarly shaped clay ridge extends to the bank in an unbroken outline, very closely resembling the beak of an eagle. This ridge plays an important part in Mandan tradition. The beak merges into the range of hills at the south; on the west of its base is a deep coulee, filled with wild fruit trees, and on the west side (of the coulee) a high promontory juts out from the range of hills, forming a flat-topped butte connected with the range of hills behind it by a narrow neck. The flat area is perhaps ten acres in extent, and the sides drop down precipitously all around except a narrow passage at the southeast, like those of a mesa in the Southwest. On the flat top of this promontory are the remains of the Eagle's Nose Village of the Mandan, very prominent in many stories and traditions, and by some said to have been built by the culture-hero, Good Furred Robe, although in this it may be confused with the Huff site. A steep path on the east side leads down to a spring, about halfway down the slope.

This village, only recently inspected, is undoubtedly the one seen by Lewis and Clark opposite and just below the point where they camped for the night on October 19, 1804.¹

Holbrook Site. (No. 46.) About three miles farther up and on the east bank of the river is another site. This is situated on the edge of a high bluff, just below the mouth of Apple Creek, on a farm known as the Holbrook Place. This site has been described in a previous paper.²

Bad or Red Water Site. (No. 1.) A few miles higher, on the west side, and a mile above the mouth of Little Heart Creek, is another site, which is identified as the Bad or Red Water Village of Mandan tradition.

¹Clark says, (*Original Journals*, vol. 1, 199): "On the point of a hill, 90 feet above the lower plane, I observed the remains of an old village, (*high, strong, watchtower &c.*) which had been fortified, the Indian Chief with us tells me, a party of Mandans lived there. *Here first saw ruins of Mandan nation.*"

²Will, G. F., "Some New Missouri River Valley Sites in North Dakota" (*American Anthropologist*, N. S., vol. 12, 58-60, 1910).

Fort Lincoln Site. (No. 2.) Proceeding a few miles farther up, we come to the well known Fort Lincoln site, situated at the foot of the hill below the old infantry barracks at that post and on a gentle slope reaching to the bluff edge. This site has been briefly described in a previous paper,¹ and is now owned by the State Historical Society. (Fig. 1.)

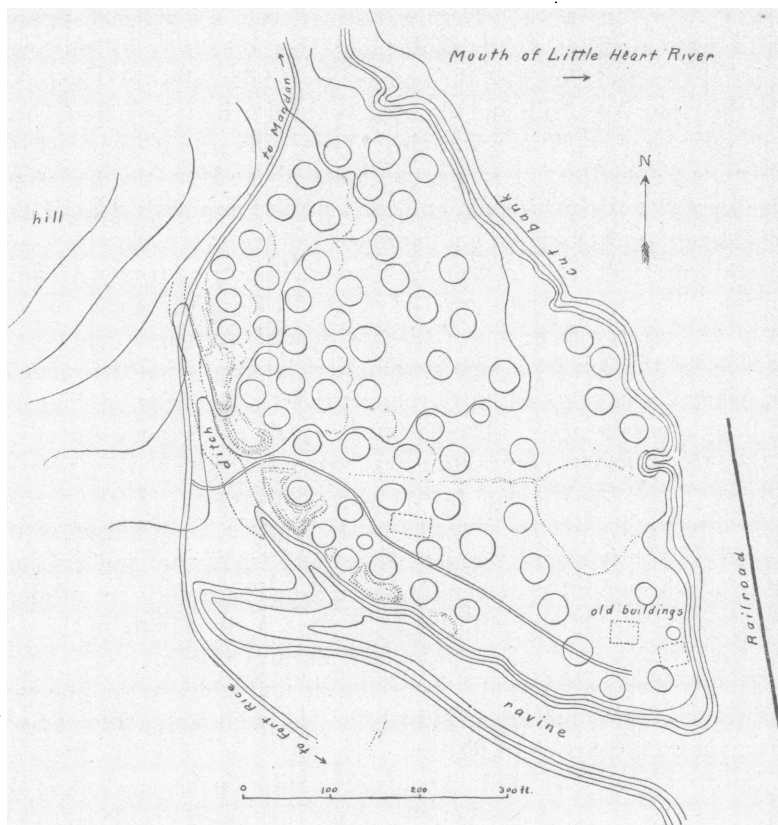


Fig. 1. Fort Abraham Lincoln Mandan Site (No. 2).

Motsiff Site. (No. 3.) Above this site we come to the Motsiff farm, just south of the outskirts of the city of Mandan, North Dakota. Here there is a very prominent site with unusually high mounds and depressions of considerable depth. It is well known to the Indians as Big Village, or a portion of that village.

¹Will and Spinden, *The Mandans*, 148. This is the site Clark calls the "1st old Mandan Village." Ordway also calls it that.

Scattered Village Site. In the eastern part of the present city of Mandan, considerably built-over, but nevertheless distinguishable, are the remains of 'Scattered Village' which was occupied in the summer, according to tradition, by those who had fields in the fertile bottomland close by.

According to some of the old Indians, a site is also located on the outskirts of Bismarck, about opposite the two villages above described; but if it ever was there all traces of it must have been destroyed many years ago.¹

Ward Site. (No. 47.) The next evident site is, however, on the east side of the river, some three miles northwest of Bismarck, and on the flat top of the high bluff, just to the south of the Ward Farm and near the mouth of Burnt Creek. This site has been described with a map in a previous paper,² and is identified by some of the Indians as the village of a chief known as 'Looking.'

Sperry Site. (No. 39.) About four miles further north is the Sperry site, on the flat top of the high bluff and on the south side of Burnt Creek, where it emerges from the hills into the Missouri River bottoms. This site is of considerable size, and Mr. Lynn Sperry has a large collection of articles which he has found there at various times. Most of this site has been plowed, and it is at present very indistinct.³

Boley Site. (No. 20.) On the opposite or west side of the river, northeast of Mandan, is the Boley site, situated on the low bench edge and on the Boley Farm. It is a very well-marked site, but has been cut through by a railroad grade which destroyed a considerable part of it.⁴ (Fig. 2.)

Otter Creek Site. (No. 5.) A few miles further up, on the west side, and about two miles below Harmon, there is another small and indistinct site. This is situated on a high bluff, just south of the point where Otter Creek runs into the river bottoms. It shows very shallow hut rings and would appear to have been occupied only a short time.

Burgois Site. (No. 40.) Almost opposite this and on the east side of the river is the largest and best-preserved of all the sites in this region: the Burgois or Double-Ditch site, which is fully described in "The Mandans" and is now held in trust for the State Historical Society.

¹Clark's statement (*History of the Expedition*, etc., 175) agrees with this tradition. He places the "2d village of the Mandans" on the north side of the river, evidently in the southern edge of Bismarck, with another old site opposite it, in the bottoms on the south side of the Missouri.

²Will and Spinden, *The Mandans*, 148. This site was not seen by Lewis and Clark.

³Lewis and Clark did not note the Sperry site.

⁴Lewis and Clark noted this site. They passed it during the first course on October 22d. (*History of the Expedition*, etc., vol. 1, 175.)

This site is considered by the Mandan to have been one of their old villages, and they know it by the name of "Yellow Village" or "Yellow Clay Village."

Larson Site. (No. 41.) About four miles further north, on the same side of the river, is the Larson site, which is also described with a map in "The Mandans."

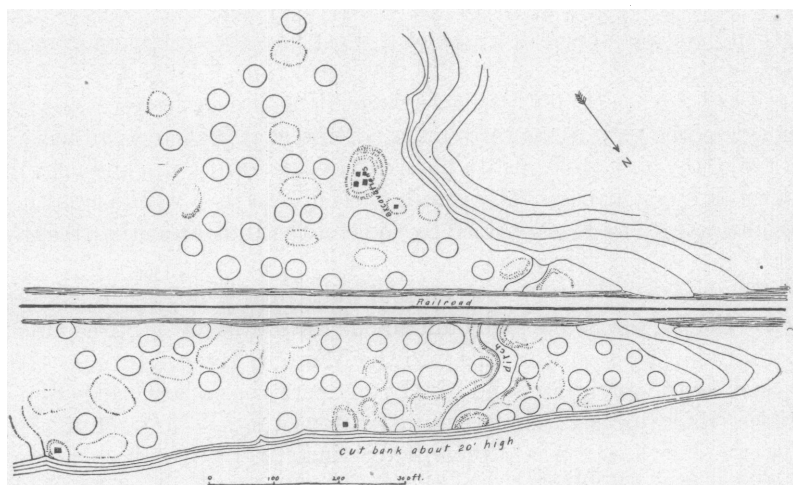


Fig. 2. Boley Mandan Site (No. 20).

No other villages have been located on the east side of the river, until the Knife River is reached, although further exploration might reveal other sites. One has been reported on the south side of Turtle Creek at its emergence into the river bottoms, but it is no longer possible to locate the site with any certainty.¹ Another has been recently reported north of Painted Woods.

¹We have now passed all of the sites of the old Heart River group. Clark describes this group as made up of nine sites along a stretch of twenty miles of river, beginning with the First Old Mandan village at Fort Lincoln and ending at a point near Harmon. He locates three of these sites on the east and six on the west bank. Including all the sites mentioned by Clark and those known today, we have along this twenty mile stretch the following sites: 1. Fort Lincoln site; 2. Clark's site on east bank south of Bismarck; 3. Big Village, opposite No. 2; 3. Scattered Village; 4. Clark's site in the northern part of Bismarck; 5. The Ward site; 6. The Boley site; 7. The Sperry site, not seen by Clark; 8. Clark's site on west bank two miles above the Boley site; 9. The Burgois site; 10. Site on the east bank two miles above the Burgois site (Clark saw this or the Burgois site); 11. Clark's site on the west side at the mouth of a large creek, evidently the Otter Creek site below Harmon; 12. The Larson site. Besides which there are about five other Mandan sites below Fort Lincoln, making nearly nineteen sites that we might include in the Heart River group.

This is by far the greatest group of village sites along the upper Missouri at any one place. I set down on a map every site mentioned, from the northern line of Nebraska to a point just above Knife River. There are eighty-two sites, and the Mandan sites from near Eagle Nose Village to Harmon make up just about one-fourth of this total number.—George E. Hyde.

On the west side of the river the Square Buttes come down as a rough barrier to the river a short distance above Harmon. They rise abruptly from the river's edge and present few locations for a village; and no sites are found on this side until we come some distance higher up.

Molander Site. (No. 25.) The first site seen above the Square Buttes is the Molander site, situated on the Molander Farm, some two or three miles above the present station of Price. This site lies back from

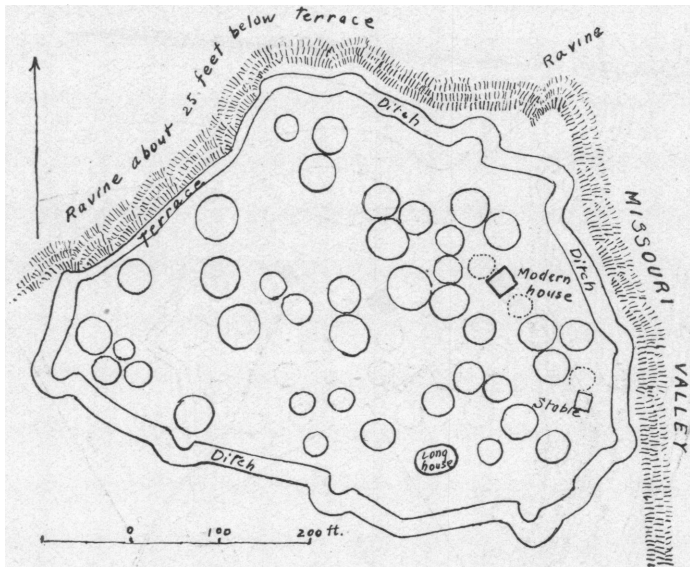


Fig. 3. Map of Molander Site from St. Paul Pioneer Press, about 1883 (No. 25).

the edge of a rather high bench just south of a deep coulée full of water-holes. It has been very little disturbed and is in excellent condition. The ditch about the site is arranged with angles jutting out at regular intervals and completely surrounds the site. A low ridge of earth follows the ditch on the inner side and the interior has a large number of very plainly marked house rings. At the foot of this bluff, on the east, is a low, narrow bench, not over twenty feet above the level of the bottoms. On this are signs, considerably obliterated by cultivation, of a supplementary village, perhaps occupied in conjunction with the upper one. (Figs. 3, 4).

Pretty Point Site. (No. 7.) A few miles above this place we come to the high bench point, jutting out into the river, known to rivermen and

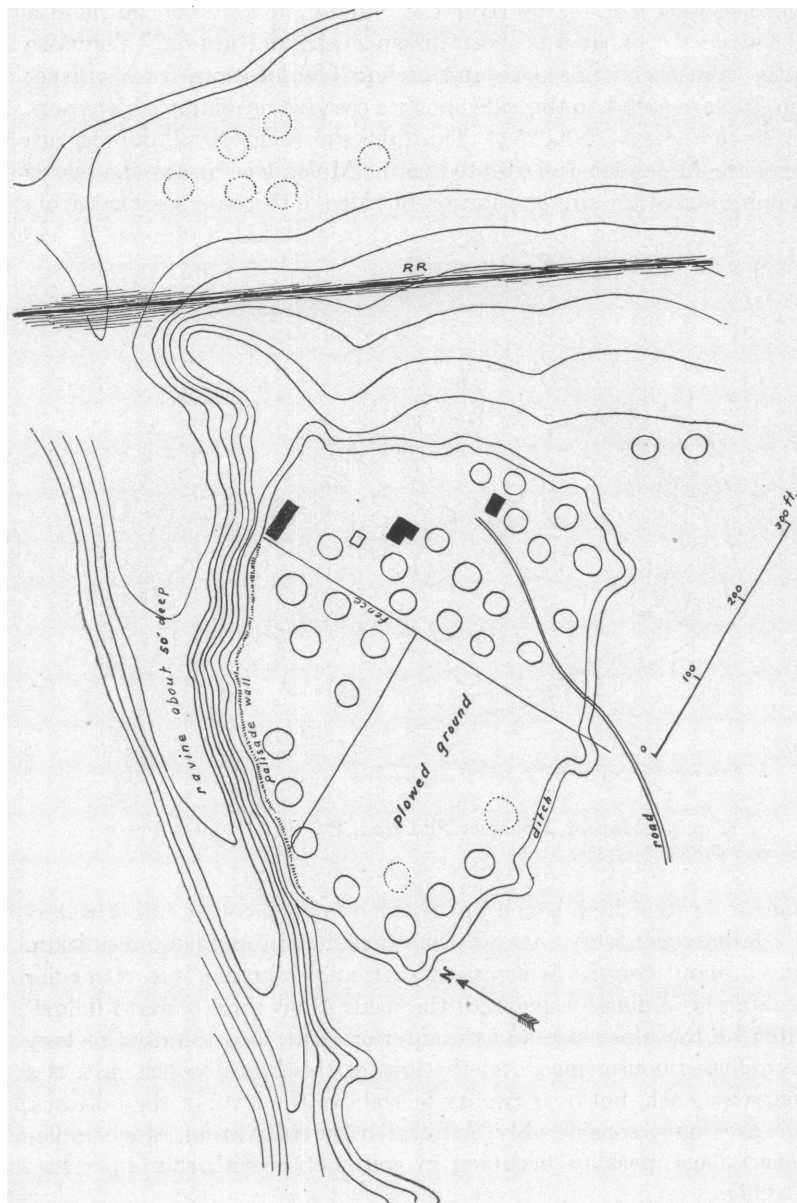


Fig. 4. Molander Site (No. 25).

marked on river maps as Pretty Point. On the very end of this point are the evidences of what was apparently a small and not very permanent village. The number of house rings is small, and there are no traces of a ditch. The cutbank to the river, however, shows a number of old caches.

• *Smith Site.* (No. 26.) At the north base of Pretty Point is located the Smith Place, and just to the north of it on the bench edge are the remains of another site apparently divided into two parts by a deep coulée. This site has been so mutilated by railroad grading as to leave few clues as to its original condition.

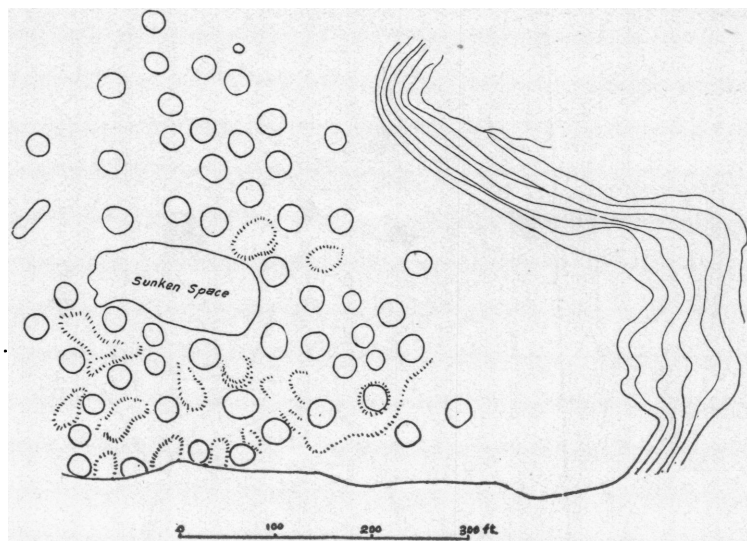


Fig. 5. Lower Sanger Site (No. 8).

Lower Sanger Site. (No. 8.) The next site is about two miles farther up and about one mile below Sanger, North Dakota. It is of medium size, fairly well marked, with a rather indistinct ditch around it and a number of mounds three to six feet high scattered among the house rings. The site is located on a flat-topped bluff just south of a deep coulée with water-holes. (Fig. 5).

Upper Sanger Site. (No. 9.) On the north edge of Sanger village and partly occupied by the River Elevator is the Sanger site. This is on the high bench which falls off directly to the river. Most of the site is very distinct and it is on a rather uneven piece of ground. The mounds are numerous and of considerable size and elevation. (Fig. 6.)

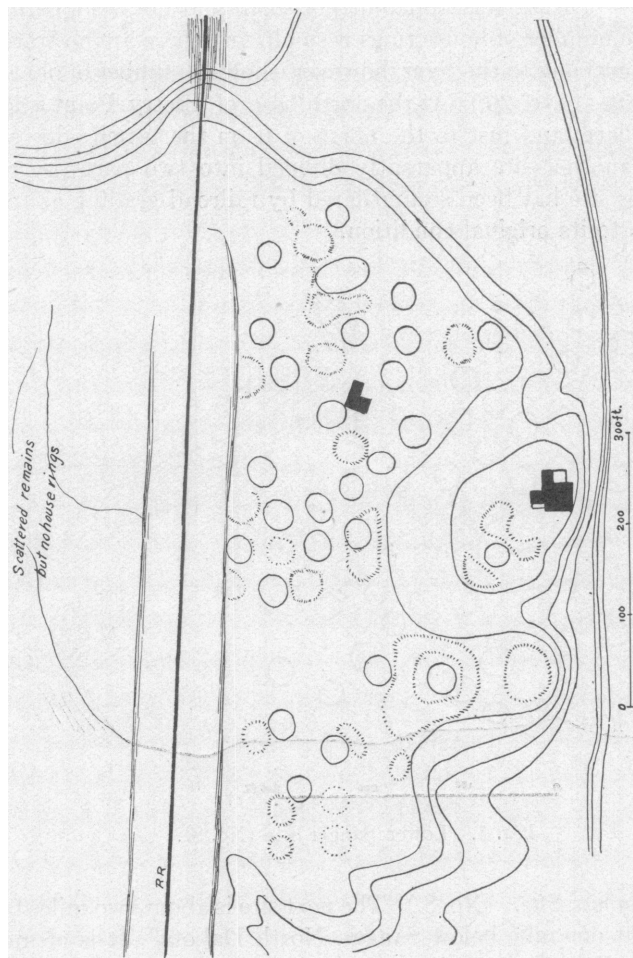


Fig. 6. Upper Sanger Site (No. 9).

Just to the north across the coulée are further remains, not distinct enough to indicate any permanent village, but apparently a place where a number of lodges had once been built.

The next group of sites brings us nearly to the Knife River region. There are three in the vicinity of Hensler, North Dakota, all of which are mentioned by Lewis and Clark.

Bagnall Site. (No. 48.) The first of these, the Bagnall site, is about five miles above Sanger. There are no distinguishable sites between these two points, but along the bench edge bone fragments and broken pottery occur very frequently. This site is on the edge of the low bench which slopes up toward the northwest to a round knoll. It is entirely surrounded by a wall and ditch and shows very well marked house rings; but there are no very great elevations or depressions.

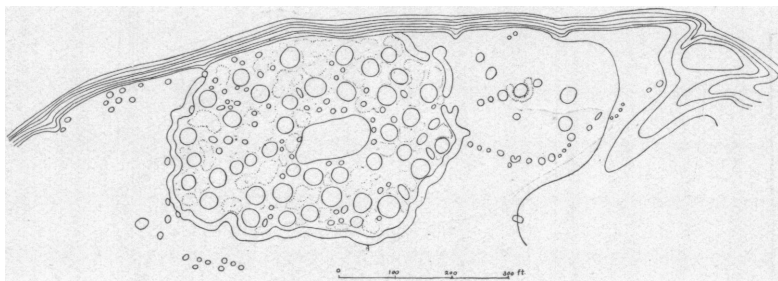


Fig 7. Greenshield Site (No. 28), probably Arikara.

Greenshield Site. (No. 28.) To the east of Hensler the bench rises to a high bluff on the Greenshield Place, and at the end of this bluff, about one and a half miles from Hensler, is a large and well-marked site with a wonderful outlook over the Missouri bottoms and up and down the river for many miles. It lies between two deep draws and is surrounded by many depressions, resembling old Arikara graves. There are also traces of what must have been an early trading-post. (Fig. 7).

Hensler Site. (No. 27.) Almost directly north of Hensler, on the edge of the level bench and about one mile distant, is the third site of this group. It is also very well marked, surrounded by a low ridge and shallow ditch, and showing no great depth or elevations.

These sites evidently constitute the three villages—one Mandan (the Bagnall), and two Arikara (the Greenshield and Hensler sites), mentioned by Lewis and Clark.¹

¹*History of the Expedition, etc., vol. 1, 177.*

These Arikara villages were evidently occupied more than once. Thus the Mandan tradition states that the Arikara moved up to this locality before the smallpox of 1780. They came up here again in 1795 and 1796 and abandoned the villages in 1799. In the spring of 1805 they moved up to these villages again, but the Mandan and Hidatsa evidently were opposed to having the Arikara near them and refused to consent to their occupation of the old villages.

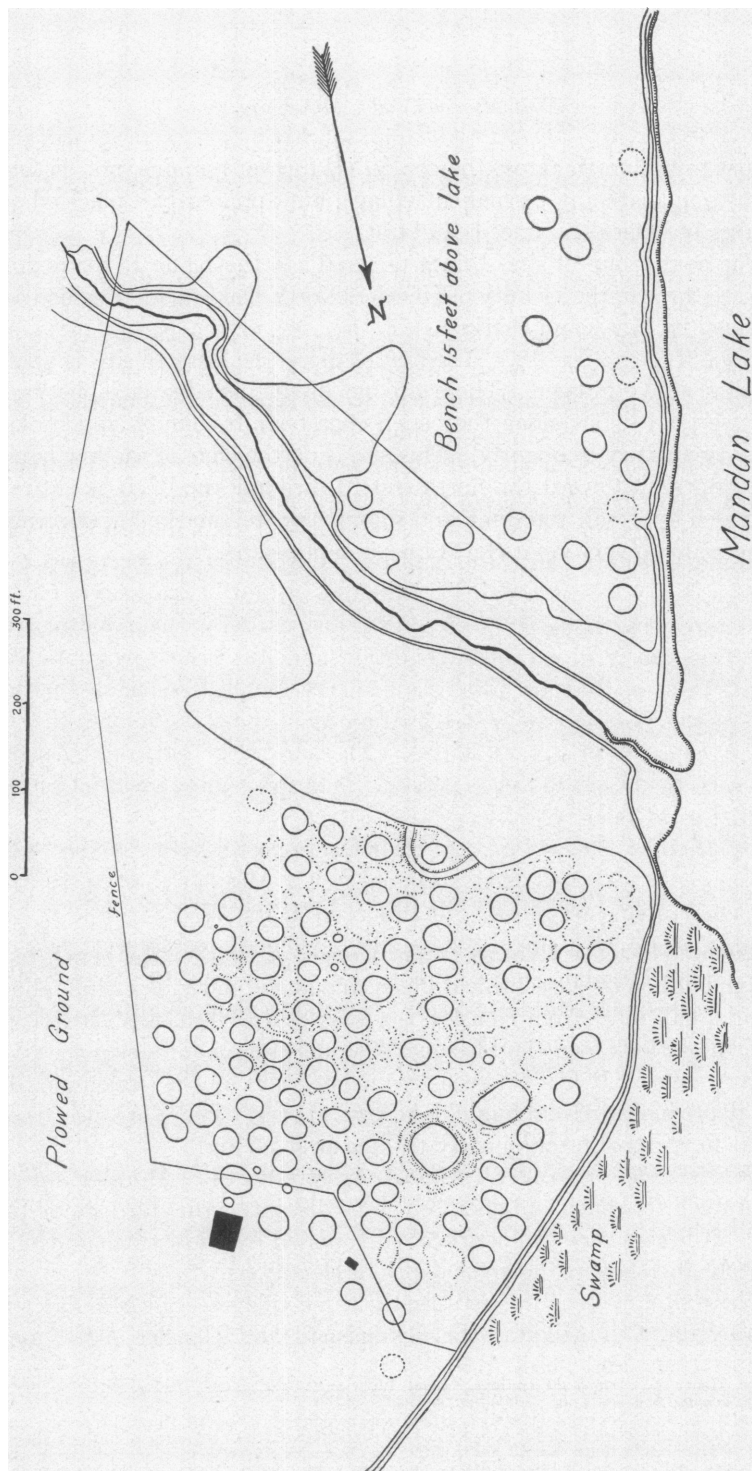


Fig. 8. Mandan Lake Sites (No. 29).

Mandan Lake Sites. (No. 29.) The next sites are some four or five miles above, on the bench along the east side of Mandan Lake. There are apparently two large sites here, divided by a deep draw or washout which extends back into the hills to the south. These two sites are well marked and abound in flint, finished artifacts, partly worked pieces, and unworked fragments. (Fig. 8).

Fort Clark Station Site. (No. 10.) Three or four miles above, and on the east edge of the present village of Fort Clark, is a double site, divided by a ravine and situated close to the edge of the bench. The area is not extensive, nor are the rings and mounds well marked. As near as can be judged, Lewis and Clark state that this was the location of the Mandan when the Arikara came up to build in their vicinity.

Old Fort Clark Site. (No. 11.) About one and a half miles farther up is the famous old Fort Clark site, built by the Mandan and occupied by them when Henry, Lewis and Clark, Maximilian, and Catlin visited them, and taken over by the Arikara after 1838 and used by them for many years. This site is in excellent condition and has been several times mapped. Perhaps the most interesting of these maps is one made by the Indians of the Fort Berthold Reservation and giving the names of the occupants of many of the old lodges. The site of the old trading-post here is very easily located even today. This site is now owned by the State Historical Society.

Fort Mandan Site. (No. 49.) Almost opposite here, on the east side of the river, was the village occupied by the Mandan in 1804, which is still in fair preservation, according to a recent report.

Deapolis Site. (No. 30.) A few miles farther up on the west side is the site of the Mandan Dupla or Ruptare. This is on the river bank close to the Deapolis River Elevator. It is in excellent condition, and is now owned by the State Historical Society.

Small Site recently Obliterated. (No. 31.) Two or three miles higher up, on the edge of the high bench, a small site was located and photographed by Mr. H. C. Fish and the writer some ten years ago. Railroad work has since obliterated it, but it very evidently marks the place mentioned by Boller¹ to which a few Mandan returned from Fort Berthold for some years.

Amahami Site. (No. 32.) We now come to the well-known Knife River Hidatsa sites. The first of these is on the edge of the bench on the outskirts of Stanton village and is partly enclosed in the courthouse

¹Boller, Henry A., *Among the Indians. Eight Years in the Far West: 1858-1866. Embracing Sketches of Montana and Salt Lake.* Philadelphia, 1868. (321.)

grounds. This site is well marked, level, and rather less encumbered with mounds and depressions than most of the sites. This was the old village of the small Amahami tribe.

Lower Hidatsa Site. (Nos. 33-34.) Nearly a mile farther up, and on the south side of Knife River, where it debouches into the Missouri bottoms, is the first Hidatsa site. This site really consists of two separate

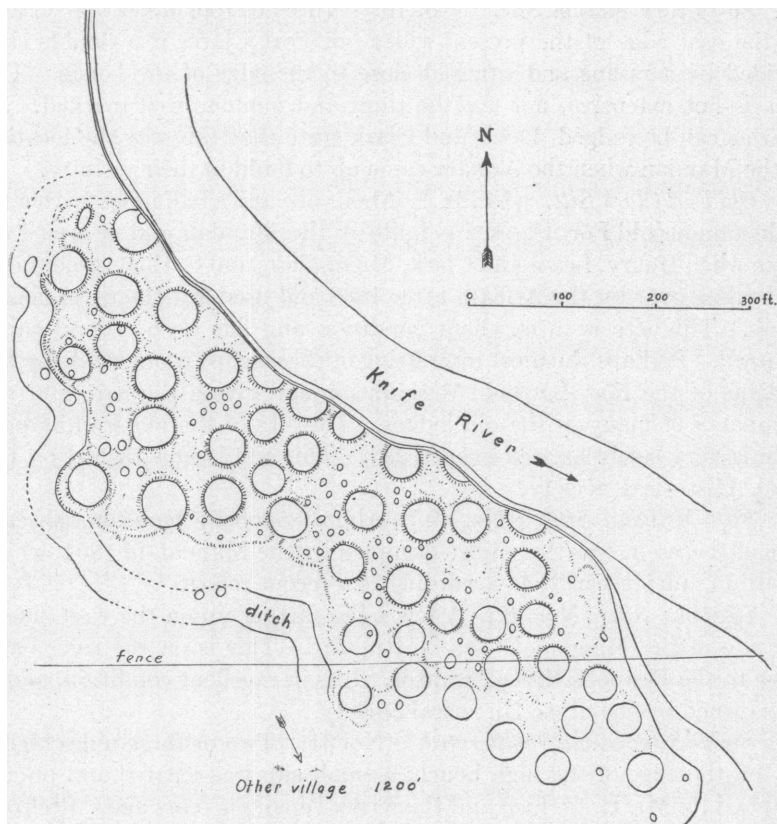


Fig. 9. Upper Portion of Second Knife River Hidatsa Site (No. 33).

and distinct parts, one being on the bank, the other to the southwest and somewhat back from the river. It is considered by the Hidatsa, however, as only one village. The elevated road from the Amahami village to this one, mentioned by Henry, is still very clearly defined. The sites themselves, judged from the height of the mounds and the depth of the rings, apparently show very long occupancy. (Figs. 9 and 10.)

Big Hidatsa Site. (No. 35.) On the north side of Knife River and on the edge of the bench which slopes up at the back to the hill where the Hidatsa sun dance was formerly observed, is the great Hidatsa village site. This is on land owned by Mr. Olds, is a very large site, and is marked by very deep house rings and many mounds.

Energy Site. (No. 51.) About six or seven miles further up the Missouri, and on the east bank, near the site of the now abandoned Energy

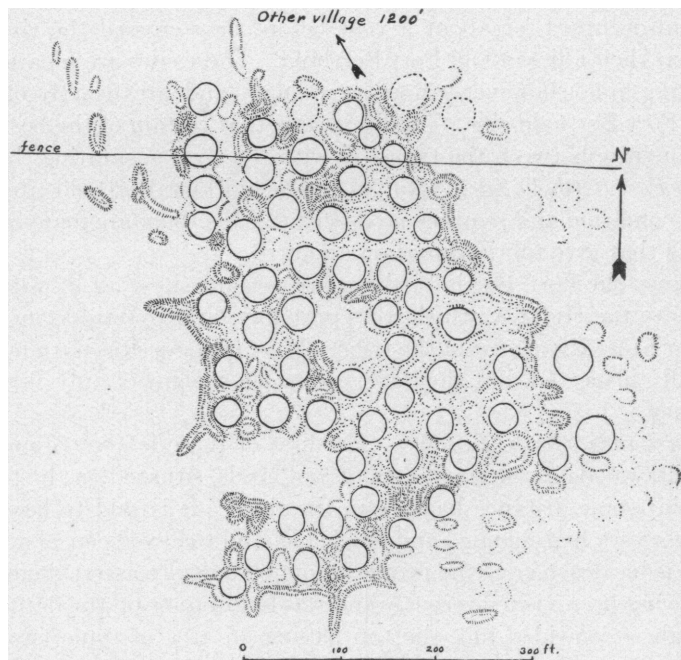


Fig. 10. Lower Portion of Second Knife River Site, Hidatsa (No. 34).

Post Office, is another site, presumably Hidatsa, concerning which we have no very definite information.

Mannhaven Site. (No. 52.) A few miles above, on the south side, and just above Mannhaven, is another site, claimed by the Hidatsa. This site was doubtless affiliated with the winter village site across the river on the north side, near the mouth of Wolf Creek, mentioned by Henry, but now quite obliterated.

Somewhere in this locality was the Red Springs and the winter village of the Arikara, frequently mentioned by Boller, but not yet identified.

Rock Village Site. (No. 53.) Still further up, and again on the south side, is the site of the Hidatsa "Rock Village." This site is just above Expansion village and takes its name from Emanuel Rock in the river at that point, an object well known to all rivermen and named after Manuel Lisa who for a short time maintained a trading-post somewhere in the vicinity.

Last Arikara Sites. (No. 54-55.) Still further up, just above the river elevator at Ree, is the first of the two Arikara sites, built by that tribe and occupied for about a year before they crossed the river and built near their allies at Old Fort Berthold. These sites are separated by less than a mile, show very short occupancy, and are exactly opposite the old Fort Berthold site. Tradition says that certain of the best criers could converse between the two sites with the river separating them.

Old Fort Berthold Site. (No. 56.) The old Fort Berthold site is still in good condition and requires no description, as there are many printed accounts that give full information about it.

Above old Fort Berthold there are several sites, all of which are ascribed to the Hidatsa, which were probably built by wandering bands from the Knife River seat of the tribe. Most of these sites have not been personally inspected, but they are said to show signs of only very brief occupancy.

Bad Lands Site. (No. 59.) The first of these is about four miles below Elbowoods in the small area of bad lands, situated on the top of a high point some distance back from the river. It is said to have been ruled by a very high-handed and cruel chief and to have been abandoned as soon as his death gave the people an opportunity to assert themselves. This site has been visited recently and was found to be on the flat top of a very high, steep-sided hill, the top having an area of some two acres. There are about twenty shallow and rather indistinct rings. The odd feature of the site was the small rings, more like tipi rings, being about eighteen feet in diameter. Some bones and pottery fragments were found.

Elbowoods Site. (No. 57.) The second of these sites is on the west bank of the river opposite the present Indian agency at Elbowoods. It is on a high bank, not far back from the river.

An interesting story regarding this site has been recently secured, versions coming from members of both tribes concerned in the events narrated, the Hidatsa and the Dakota. The story brings in an interesting item in describing a plan of water storage, a feature concerning which practically nothing had previously been secured.

It seems that on a certain occasion the Dakota sent out a large war party to destroy this particular village, which was located on a high and very inaccessible promontory. A hunting band of the Hidatsa ranging far from home, happened to discover the war party and its object, and at once hastened home to their chief with the tidings.

The chief immediately ordered the men forth to the hunt to secure many green buffalo hides, while the women dug deep pits in the lodges. The hides were speedily brought in, and were fitted into the pits by the women. Then men, women, and children began carrying jars of water up from the river without ceasing. Just as the last reservoir was filled the Dakota appeared in the distance, and soon invested the village with the intention of reducing it through the people's suffering from thirst. There was much bitter fighting, all favorable to the Hidatsa owing to their almost impregnable situation. At the end of twelve days the Dakota decided that the people must by then have reached a very serious state and a grand assault was organized. To their surprise on launching the assault, they met a vigorous resistance in which many Dakota were killed. As a finale to the repulse the Hidatsa rolled down a number of skins full of water upon their discomfited assailants. This so disheartened the Dakota that they at once raised the siege, leaving so many bodies of dead warriors in the vicinity so the Hidatsa say, that the village had to be abandoned on account of the stench.

Inland Sites. In addition to this list of sites along the river, there are several sites more or less inland, some actually observed, others traditional and not yet located.

First among these is the old Cheyenne site on the great bend of the Cheyenne River, in the eastern part of the State which has been observed and mapped.

Dr. Beede of Fort Yates states that there is another Cheyenne site almost directly east from Fort Yates, some fifty or sixty miles distant, in the hills near Kulm, North Dakota. This site, so far as known, has not been actually inspected. The Cheyenne who built this village are said by the Dakota to have come from Minnesota; they halted near Kulm for but a short time, then crossed the Missouri and built the village on the south bank of Porcupine Creek, above Fort Yates.

A site, also formerly described, was seen by Mr. Joseph Taylor, a pioneer trapper, in the sand hills district east or southeast of Bismarck, North Dakota. This has been tentatively suggested as the site of the village visited by the elder Vérendrye. Careful search in recent years has failed to discover any traces of this site, and it is probable that it has been obliterated by the blowing of the sand.

Two other inland sites were reported some years ago, but so far as is known have never been investigated. Neither one can be definitely ascribed to any tribe. The first of these is said to be about twenty miles northeast of Bismarck and not far from the hill known as Sibley Butte. The second is on the west bluff overlooking a small lake, a short distance west of Turtle Lake, North Dakota.¹

Several years ago a site was reported in western Oliver or Mercer County, North Dakota, possibly one to which the Hidatsa retired at the time of the smallpox epidemic. Recently Dr. Libby of the North Dakota Historical Society has located an inland site in the Knife River valley near Beulah, North Dakota, but so far has published no account of it. This may be the site mentioned above.

Tradition among the Hidatsa locates an early village on Graham's Island in Devil's Lake, but a careful search by Mr. H. C. Fish, when connected with the North Dakota Historical Society, failed to disclose any trace of such a site.

In preparing this list of sites we have given the definite or probable identification of a particular tribe with each village site so far as possible. There are, however, a number of sites not definitely ascribable to any one tribe, so far as history and tradition go. Tradition is in too many cases vague, one narrator locating a given site at one point, another connecting the same story with another site. This is more especially true of the older sites, and it seems certain that some archæological features would present the surest means of identification. We know that some of the sites have been used by more than one tribe, and it is reasonable to suppose that this may have occurred in other cases.

The Arikara sites seem to predominate lower down the river, the older Mandan sites center in the Heart River region, while the Hidatsa sites are most numerous farther north near Knife River.

There are several much discussed and well-known sites which seem very difficult to identify. Among these are the site away from the river visited by the elder Vérendrye, the two Mandan sites on Apple Creek, the village of the chief, Looking, which is located at different points by different Indian informants, and the site of the original Dupla village, the head village of the east side people of the Mandan.

¹It should be noted that the troops of Generals Sibley and Sully in their campaigns against the Dakota east of the Missouri, in 1863 and 1864, frequently threw up earthworks to defend their camps, sometimes on rather an elaborate scale, and these old earthworks might easily be mistaken for the remains of Indian villages by casual observers. These earthworks are described in the reports contained in *The Official Records of the Union and Confederate Armies*. Some Indian remains are also mentioned in these reports.

There seems to have been a real distinction between the Mandan of the east side and those of the west. We see the name *Dupta* carried up river by this people and applied to several successive sites, and finally transferred to the west side at the *Deapolis* site of *Ruptare* or *Duptade* when the last remnants of the east side people finally crossed the river. This division of the Mandan people is borne out by Maximilian's account of the difference in dialect between the people of the Fort Clark village and those of *Ruptare*.

The Mandan village names and organization seem to have been in some way bound up with the band divisions and band names. This presents an interesting problem. The present organization into seven bands, one division of four bands and one of three, seems to be a corruption of the older organization, perhaps due to contact with the *Hidatsa*. The older organization was made up of nine or thirteen bands, and the names of these divisions appear to have corresponded quite closely to the names given by Maximilian to the old Heart River villages.

We have stated some of the difficulties that are encountered in attempting to identify the village sites from traditional information: let us now see what aid archaeology promises in this task. In this archaeological field there are some differences in the remains, suggested by Dr. Libby, which in the better preserved sites are clearly demonstrable. These differences were partly established by Dr. Libby's examination of recent village sites, and are partly corroborated in the descriptions of the villages by the early explorers and travelers, and further established through the statements of the older Indians as given to Dr. Gilbert L. Wilson, Dr. Libby, and the writer. In view of the agreement of the testimony from all the various sources, it seems reasonable to accept the differences in question as definitely established.

According to this view, a village of the Mandan always contained at least one open area in the center of which was the barrel-like structure of planks—the ark of the First Man. All of the houses surrounding this open area belonged to prominent men and their doorways all faced more or less inward, without pointing directly toward the central point of the open space. One of the houses in this inner circle was distinguished by a peculiar method of construction, having a flattened front. No lodge was ever built in the open space, though caches and corn scaffolds might lie within it. These are the certain distinctive features of the Mandan village. Others have been suspected, but not demonstrated satisfactorily.

The *Arikara* village had an open space of similar proportions to that of the Mandan village, but lacked the plank cylinder in the center, and the *Arikara* sacred lodge always occupied a portion of the clear area.

The Hidatsa village, unlike the two above described, had no open area and no distinctive medicine lodge, the houses being crowded together throughout the village.

The Cheyenne earthlodge village has not been described by the early travelers or in tradition, and it can only be conjectured at present that it resembled most closely the Hidatsa village, as a comparison of the maps of village sites shows. We have therefore no distinguishing features for the Cheyenne site.

There is one other sure determining feature which does not have to do with the village plan. This is the form of burial, a certain means of distinguishing between the Arikara and the other tribes, since the former always buried underground while the other tribes of the region employed the scaffold or tree burial. The finding of bodies regularly buried in graves is therefore a safe indication of Arikara occupancy of a village site. On the other hand the finding of bundles of human bones, or pieces of human bones and skulls, scattered among the débris of a village site, is a safe indication of Mandan or Hidatsa occupancy.

In addition to the fairly well-established criteria of tribal differentiation mentioned above, there are a number of other points which further investigation may add to the list. Some stress has been laid in papers by other writers on the matter of the excavation for the house floor as a distinctive factor. As has been shown in a previous paper, investigation hardly bears this out, as various witnesses give different opinions and the safest conclusion seems to be that excavation was largely a question of getting a suitable soil for floor purposes. In this connection may be considered the question of the depth of house-rings. This feature might seem to depend on the amount of excavation, but investigation seems to show that this is not the case, as we find the deep rings in the sites traditionally longest occupied, no matter which tribe occupied them, and more especially if such sites are partially sheltered from the blowing and drifting of dust and sand. In the other words, deep house-rings are the result of the building up of the surrounding village level during long years of occupancy, and of wearing down the floor by treading and daily sweeping rather than of excavation for the floors.

Other points which at various times have been suggested as distinguishing features are the location with respect to each other of the wall and the ditch, the shape of the village area, the interior house arrangement, method of roof building, location of shrines or monuments of a sacred character, and lastly, differences in pottery and in flint and bone artifacts.

Considering the above points in turn: as regards the wall and ditch, the descriptions of early travelers and the examination of sites show in some cases the wall inside the ditch, while in other instances it is outside. To the present, however, no connection has been established between the location of the wall and the identity of the tribe that occupied a village site. Local conditions would seem to account for the varying location of the wall, though it is significant that the older sites seem to have had the wall inside, as described by the elder Vérendrye.

As to the shape of the village area: it is certain that there are no manifest differences between the shape of the Mandan and Hidatsa village sites. Mr. Steinbrueck, however, has advanced a theory that Arikara sites may be determined by their shape, which he says is always more or less circular, with a wall all around, and with salients at regular intervals. The writer has observed several such sites, but has also seen supposedly Arikara sites not built in this fashion and has observed known Mandan sites in the same form.

As to interior house arrangements: differences such as we know existed here, and in the forms of corn scaffolds, sweatlodges, etc., are not of a nature to leave any definite archæological trace, and therefore must be disregarded in seeking for factors of archæological differentiation.

As to the difference in the method of building the roof and lodge, there were doubtless minor variations between the methods of the Mandan, Hidatsa, and Arikara, but it is unlikely from what we know of these differences that they would leave archæological evidence. There is, however, an old Cheyenne tradition extant which mentions that the Cheyenne earthlodge of early times was built by burying the butts of long poles in a circular ditch, then bending the tops together and tying them there. Such a widely variant method would most certainly be plainly discernible by excavation, and if this method was really employed, as can be proved or disproved at known Cheyenne sites, would give us another easily recognizable factor for determination.¹

As to the location of shrines or monuments of a sacred character pertaining to particular tribes, we have already mentioned the sacred lodges of the Mandan and Arikara, and the Mandan plank enclosure. In addition to these we have the 'Sun Mound' so-called, at the Cannonball site, described by the Dakota as a special Mandan feature. Evidence in

¹This type of earthlodge was not necessarily built by the Cheyenne in their Missouri River villages, for the tradition clearly refers to a much earlier period when the tribe lived in the country north of the Missouri, in Minnesota or eastern North Dakota. The Cheyenne, when they lived in this region near the lakes, built houses of poles covered with mats, the poles presumably being bent together at the tops and tied as above described. Later, seemingly when they moved into the plains north of the Missouri, they built the same type of house but covered it with skins instead of mats; they also built 'dug-outs' as above described.

this matter requires much elaboration before the presence or absence of such a mound can be used as a very definite factor.

Last we come to the matter of bone and stone artifacts, and pottery. Among these objects probably lies the best field for working out tribal occupancy of the different sites. A large amount of study, however, would be required to establish definitely the types of artifacts attributable to the several tribes. With a careful period of work elaborated by drawings and photographs, such as are given in "The Mandans," upon a known site of each of the tribes, it seems almost certain that clear differences in pottery design, shape of arrow points and bone implements, and quality of workmanship, could be demonstrated. Up to the present, however, this field of work is not open to the student. Let us hope that some organization may give us a definite report on at least one known site of each of the tribes, based upon careful excavation, so that we may have the much needed data for comparison.

Steinbrueck's List. After the above was in manuscript, there was discovered in the vaults of the North Dakota Historical Society a list of sites with their location by section and township made by Mr. E. R. Steinbrueck during his connection with the Society. This has been very courteously placed at our service by the Curator, Dr. Melvin R. Gilmore. The list locates forty-two sites, all of which have been carefully compared with our own list, and it is found that Mr. Steinbrueck lists nine sites not contained in our previous list. His list is given, herewith, numbered according to his system. His numbers 6, 17, 19, 22, 23, 24, 42 and 44 are not included in our list.

Of these new sites numbers 16 and 17 are located a short distance north of Fort Rice postoffice. Number 19 is located a short distance northwest of the present village of Huff.

His numbers 20 and 39 seem to be very nearly the same location unless the description is inaccurate, both approximating the Sperry site.

Numbers 6, 22, 44, 23 and 24 are located in a section where we had been unable to find any sites, that is, between the mouth of Square Butte Creek and the north side of the Square Buttes, 6, 22 and 44 being very close together and just north of the creek. It is possible that they have been plowed up recently.

Number 42 is located to the southwest of Mandan on Heart River and coincides with information obtained by Dr. Gilbert L. Wilson from an old Mandan, Butterfly. Butterfly said that the Fort Lincoln and Motsiff sites were Mandan and that the first Hidatsa village founded was up Heart River from the Motsiff site a short distance.

In publishing Mr. Steinbrueck's list, his numbers are given together with our own names for such sites as are included in our list.

Mr. Steinbrueck had the advantage of working at a time when there was little settlement over most of the region and not much plowing had been done. He was a careful worker and there is little doubt but what the additional sites which he gives were located as described.

Mr. Steinbrueck's list follows:—

1. NW 1/2 NW 1/4 Sec. 5 and NE 1/2 NE 1/4 Sec. 6, Twp. 137, R. 80 (Badwater).
2. Partly on NE 1/4 SW 1/2 and partly on lots 3 and 4, Sec. 13, Twp. 138, R. 81 (Fort Lincoln).
3. N 1/2 and S 1/2 SW 1/4, Sec. 35, Twp. 139, R. 81 (Motsiff).
4. SE 1/4, Sec. 27, Twp. 139, R. 81 (Scattered Village Site).
5. Part SE 1/4 SW 1/4 and part Lot 1, Sec. 33, Twp. 140, R. 81 (Otter Creek).
6. Center of S 1/2 Sec. 6, Twp. 140, R. 81 (a new site).
7. SW 1/4, Sec. 32, Twp. 143, R. 81 (Pretty Point).
8. SE 1/4, Sec. 30 and NE 1/4, Sec. 31, Twp. 143, R. 81 (Lower Sanger).
9. SW 1/4, Sec. 19, Twp. 143, R. 81 (Upper Sanger).
10. NE 1/4, Sec. 6, Twp. 143, R. 83 (Fort Clark Town site).
11. NW 1/4, Sec. 37, Twp. 144, R. 84 (Old Fort Clark historical village).
12. Four to five miles below Fort Yates, Cheyenne.
13. Two miles above Fort Yates at second Day School (Slob Town Cheyenne).
14. Center of S 1/2, Sec. 10 and N 1/2, Sec. 15, Twp. 134, R. 79 (Cannonball).
15. Lot 3, Sec. 14, Twp. 135, R. 79 (Fort Rice).
16. E 1/2 SW 1/4, Sec. 11, Twp. 135, R. 79 (a new site).
17. E 1/2 NW 1/4, Sec. 11, Twp. 135, R. 79 (a new site).
18. Center N 1/2, Sec. 8 and S 1/2, Sec. 5, Twp. 136, R. 79 (Huff).
19. SW 1/4, Sec. 5 and SE 1/4, Sec. 6, T. 136, R. 79 (a new site).
20. NW 1/4, Sec. 14, Twp. 139, R. 81 (Boley).
- 21.
22. SW 1/4, SW 1/4, Sec. 6, Twp. 140, R. 81 (a new site).
23. Part NW 1/4 and part NE 1/4, Sec. 14, Twp. 141, R. 81 (a new site).
24. N 1/2 SW 1/4, Sec. 14, Twp. 141, R. 81 (a new site).
25. NE 1/4, Sec. 17, Twp. 142, R. 81 (Molander).
26. SW 1/4, Sec. 31, Twp. 143, R. 81 (Smith).
27. NE 1/4, Sec. 36, Twp. 144, R. 82 (Hensler).
28. SE 1/4, Sec. 26, Twp. 144, R. 82 (Greenshield).
29. SE 1/4, NE 1/4, Sec. 34, Twp. 144, R. 83 (Mandan Lake).
30. Center where 6 and 7 of Sec. 16 and NE 1/4 and NW 1/4 join Sec. 21, Twp. 144, R. 84, (Deapolis).
31. S 1/2, Sec. 17, Twp. 144, R. 83, New or meant for 84—lost site, destroyed by railroad.
32. Sec. 33, Twp. 145, R. 84 near mouth Knife River, Stanton (Amahami).
33. NE 1/4, SE 1/4, Sec. 33, Twp. 145, R. 84 (Lower Hidatsa).
34. NE 1/4, NE 1/4, Sec. 33, T. 145, R. 84 (Lower Hidatsa).
35. Near center, NW 1/4, Sec. 21, Twp. 145, R. 84 (Big Hidatsa).

- 36.
37. S 1/2, NE 1/4, Sec. 30, Twp. 136, R. 78 (Shermer).
- 38.
39. NW 1/4, Sec. 2, Twp. 139, R. 81 (Sperry).
40. NE 1/4, Sec. 21, Twp. 140, R. 81 (Burgois).
41. Part NW 1/4, Sec. 9 and SE 1/4, Sec. 4, Twp. 140, R. 81 (Larson).
42. NE 1/4, NE 1/4, Sec. 33, Twp. 139, R. 81 (a new site).
43. NW 1/4, Sec. 10, Twp. 136, R. 80 (Eagle's Nose).
44. Lot 7, Sec. 34, Twp. 141, Range 81 (a new site).

SURVEY OF VILLAGE SITES IN 1919.

In conclusion are given some details from a survey made in 1919 in conjunction with Dr. Spinden, a survey which included all of the known sites on both sides of the Missouri from the Cannonball site to the Burgois site. This area included all of the older sites to which but little attention had previously been given; none of the actual historical sites were visited.

Fourteen sites were examined, and all were mapped where sufficient trace remained for mapping to be possible. Small representative collections of pottery and other artifacts were sought at each site from which some rather interesting data have since been derived. The sites visited were for the most part the very oldest ones which can be connected up with the Mandan, and which traditionally mark the earliest advent of that people into the region. The following list names the sites seen in order going upstream:—

The Cannonball site, the Fort Rice site, the Shermer site, the Glencoe site, the Huff site, the Eagle's Nose site, the Holbrook site, the Bad Water site, the Fort Lincoln site, the Motsiff site, the Ward Site, the Sperry site, the Boley site, the Burgois site.

These sites have all been described or mentioned previously, with one or two exceptions, but we shall give a brief account of them as observed on this survey, taking them up in turn.

The Cannonball Site. (No. 14.) This site was gone over rather carefully. It was found that much of the area previously supposed to belong to the site gave no evidence of it on close examination. Even with this lopping off, however, the site is a large one. It was mapped as well as possible, in view of the fact that part has been plowed, and all is rather indistinct. There is rather clear evidence of two series of house rings, one much more plainly marked than the other, and superposed upon it. The rings do not seem to be crowded even under these conditions. Some difficulty was experienced in getting a collection of artifacts, most being found in the section which was occupied by a patch of corn. This

scarcity of artifacts may be due either to short occupancy or to extreme age which often operates to make finds of that sort procurable only at a considerable depth. Some fifty-six pieces of pottery were secured in all, most of which were noticeable for their coarseness and lack of ornamentation.

The Fort Rice Site. (No. 15.) This site is at present almost indistinguishable, having been so many times plowed and seeded, a slight rolling of the surface being about the only evidence to show house rings. Pottery and artifacts were scarce, but a small collection was gotten after some search. All rim pieces found showed decoration and the quality seemed superior to that of the Cannonball site. Quite a proportion of the sherds were red.

The Shermer Site. (No. 37.) This site on the east side of the river has been known for some time, but never described by anyone who had visited it. It proved to be very interesting. With the exception of a small corner which has been plowed and was occupied by growing corn at the time observed, the site is in very good condition and was easily mapped. It is some three miles south of Glencoe, North Dakota, in a rather rough country with several bad-land buttes in the vicinity, and far removed from general travel. The site lies on the edge of a rather low bench with a broad view over the river bottom to the west. It is bounded on the north by a shallow coulée and overshadowed on both the north and south by higher bluffs. This site is one of those in which bastions play a part in the fortifications. A wall and ditch seem to have surrounded the whole site except along the bench edge and the wall projects at intervals into well made bastions. The house rings are fairly close together though not crowded as in some of the later sites. (Fig. 11.) The amount of pottery and artifacts present and easily dug up would indicate a rather lengthy period of occupancy, as would the depth of deposit in places along the bench edge. 123 potsherds were found together with a number of bone and stone articles. The pottery was of good quality with nearly all rims showing ornamentation. About one-fifth of the sherds were red or brown.

The Glencoe Site. About two miles above the Shermer site on the edge of a high bluff with deep coulées both above and below, very indistinct traces of another possible site were discovered. The site has apparently been cultivated for some time. At present there are no indications of house rings or boundaries, except in the fading off and disappearance of artifacts. Doubtless this site was only a temporary one, although enough potsherds were found to show that it was more than a camp en route.

The pottery seems to resemble very closely in its general characteristics that of the Shermer site.

The Huff Site. (No. 18). This site proved perhaps the most interesting of any visited, especially because it is in the very best-preserved condition of any of the extra ancient sites, never having been plowed or materially disturbed. Some of the other nearby sites may have presented as inter-

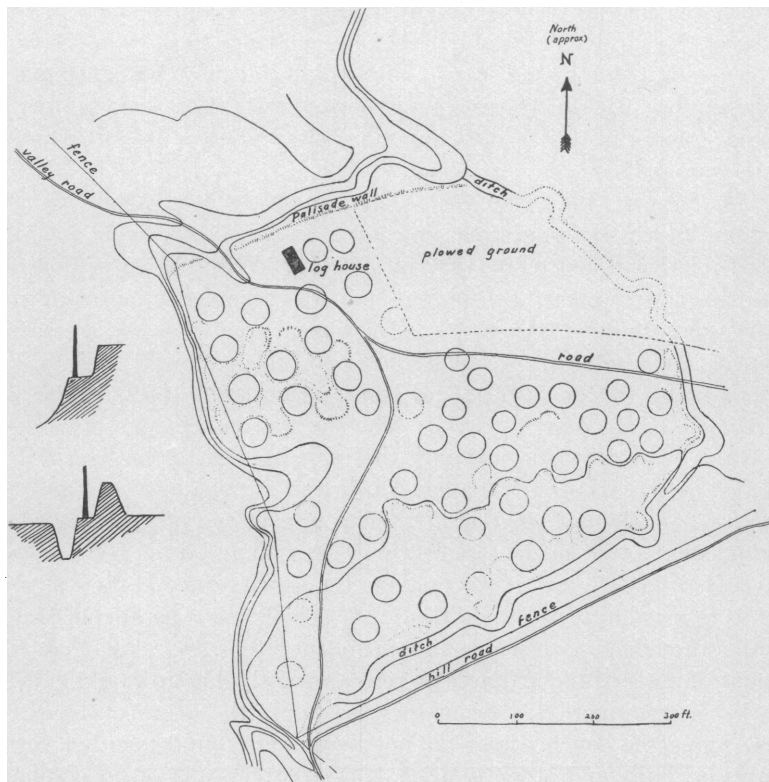


Fig. 11. Shermer Site (No. 37 on map), showing Detail of Wall and Ditch and of Palisaded Bluff.

esting and unusual features, but they are now so nearly obliterated that it is impossible to tell. The map made showed many features which differentiated this site from any of the others, the most prominent feature being its almost perfectly rectangular shape. The rectangle lying along the high bluff overlooking the river is well outlined by a wall and ditch, still of considerable depth, with a number of regularly placed

bastions. The river side is protected only by the very precipitous bank. An area of about twelve acres is enclosed within the wall, making this perhaps the largest enclosed site we have found. (Fig. 12). Most of this site is owned by the North Dakota State Historical Society.

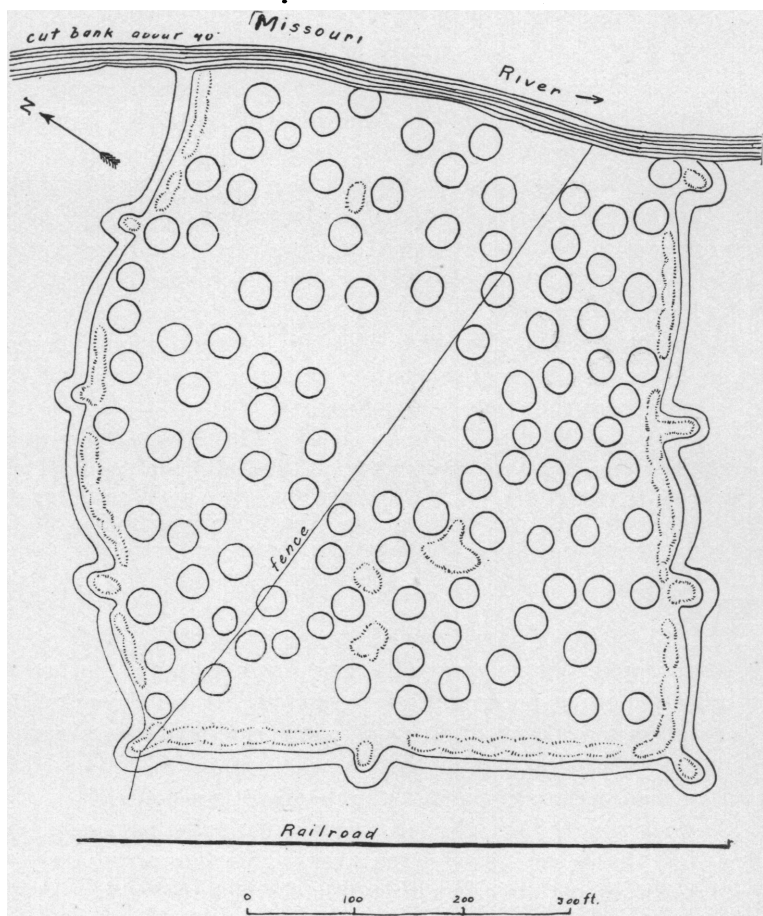


Fig. 12. Huff Mandan Site (No. 18).

A coulée cuts into the bluff a short distance beyond both the north and south ends of the site. A bastion occurs at each corner as well as those at regular intervals along the three sides. Within the wall, the ground now is comparatively level, although the house rings are easily

distinguishable. Apparently the site has drifted in with sand and dust, as very little trace of occupancy can be found without digging well down beneath the present sod. The house rings are spaced much further apart than usual and seem to be laid out more or less in lines or rows with linear areas that might pass for streets. Pottery found here seems to resemble strongly that from Fort Rice, and the Shermer and Glencoe sites, although it was much more difficult to find in quantities since none of the area had been plowed. In connection with the unusual features of this site, it is interesting to recall its traditional importance. Supposedly this is the site of the first village built by the culture-hero chief, Good Furred Robe, when the Mandan reached this vicinity. One Mandan tale relates that the site was laid out with straight lines, the houses more or less in rows, to imitate the laying out of a field of corn, all as directed by the chief. A number of the oldest stories are also connected up with this and the Eagle's Nose sites.

The Holbrook Site. (No. 46.) This site has been referred to previously, and described some years ago in a paper for the "Anthropologist." The description at that time is as follows:—

The site extends along the bluff about twelve hundred feet, the depth back up the gentle slope being about six hundred feet. A ditch ran from the north end of the village on the edge of the bluff in a flattened semi-circle to the south end where it terminated at the bluff edge which is quite steep all along here. The ditch was traceable for the whole distance and the larger mounds seemed to skirt the inner side of the ditch, with lower mounds and barely distinguishable depressions in the enclosed area.¹

Since the above was written all traces of mounds, ditch or rings have disappeared, but no great difficulty was experienced in finding a good collection of potsherds and other artifacts. It will be noted from the description above that this was a very large site which may originally have closely resembled that at Huff, as even when first observed long cultivation had destroyed most of the details of construction.

The Eagle's Nose Site. (No. 43.) Our next site is the unusual one of Eagle's Nose on the west side of the river. This has already been described, and is almost directly across from the Holbrook site. Artifacts of any sort seemed to be pretty far below the sodded surface here and some trouble was experienced in getting pottery fragments; in fact what was found was for the most part only of the heavy, crude and lasting type.

¹Will, G. F., "Some New Missouri River Valley Sites in North Dakota" (*American Anthropologist*, N. S., vol. 12, pp. 58-60, 1910), 59.

Bad Water Site. (No. 1.) This site on the west side is located about a quarter of a mile above Little Heart or Bad Water Creek of the Mandan. The location is on the gentle slope of a hill which descends to the low bluff edge. Unfortunately it has been practically destroyed, part having been frequently plowed, part being occupied by a wide graded road, and most of the rest effaced by a wide railroad cut. About all that could be done was to secure a small collection of pottery and artifacts. Apparently this also was a site of considerable area and would have been very interesting for comparison with that at Huff and the Holbrook site. This site is mentioned frequently in Mandan traditions.

Fort Lincoln Site. (No. 2.) About five miles further up we come to the well-known and important site of old Fort Abraham Lincoln. This has been previously described. On this occasion it was mapped, and a good collection was obtained. The deposits of debris are very deep here and long occupancy until rather more recent times than in case of the sites lower down is suggested by the fact that artifacts are plentiful even on the surface, and the ground is only partially sodded over. (Fig. 1.)

Motsiff Site. (No. 3.) Three miles further up, and again on the west side is another well-preserved and apparently long occupied site. Some traditions give this as the seat of the Hidatsa while living in this area, while others call it an offshoot of the Fort Lincoln Mandan site. It lies on the point of a bench some thirty feet above the bottomland and along the base of which Heart River flows. It is cut or perhaps bounded on the west by a deep ravine, a point somewhat difficult to determine. There are traces of a wall and ditch; the house rings are of unusual depth; and there are a number of very large mounds scattered over the village site. This site, with the Burgois, Boley, and Larson sites, seems to be of a very similar type and appearance. The site was mapped and a good collection of pottery and artifacts found, as they were rather plentiful. (Fig. 13.)

The Scattered Village Site. (No. 4.) This site is situated in the eastern part of the city of Mandan, is entirely built over or occupied by gardens, and is practically destroyed.

The Ward Site. (No. 47.) The next site is on the east side. It has already been mapped and described. Particular attention was however, directed to the bastion in view of the occurrence of this feature further down. In this case, a wall and ditch cut off a promontory of considerable height and inaccessibility, these being on the east and including two bastions very similar to others observed. The ditch extends out onto the steep sides of the promontory as a sort of terrace. A good collection

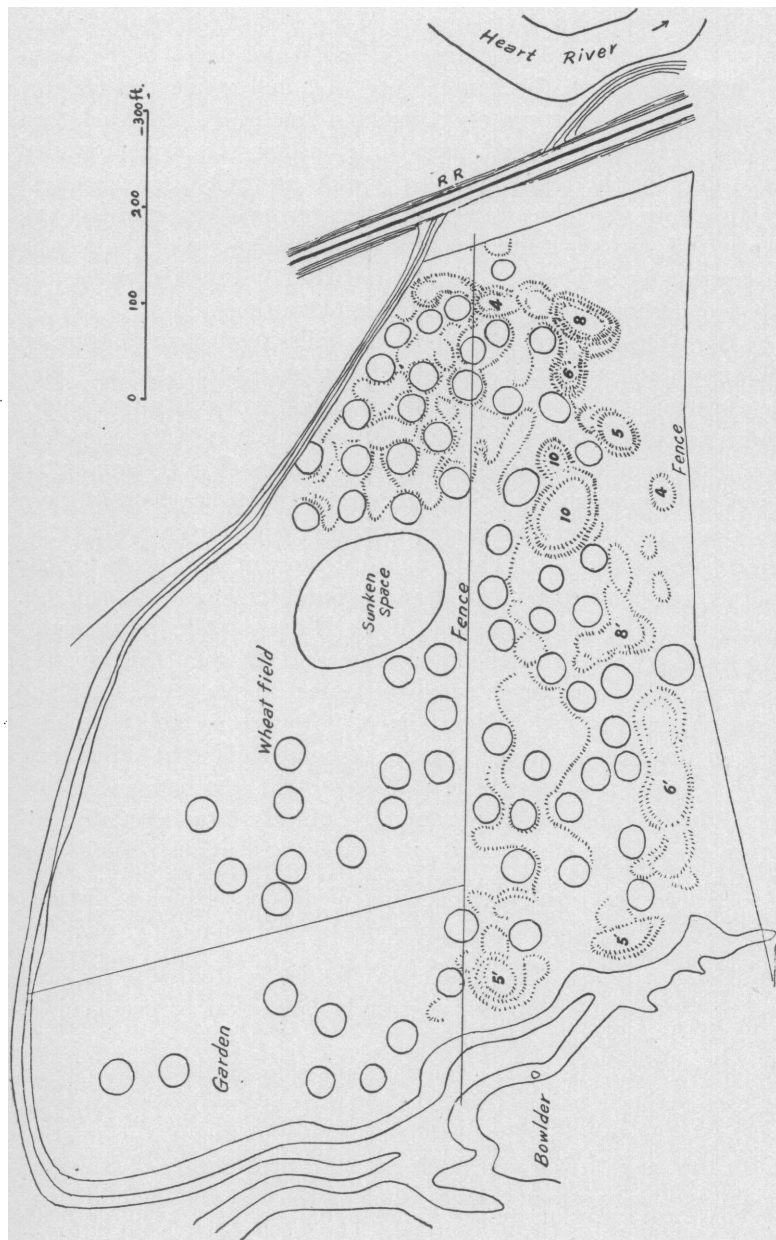


Fig. 13. Motsiff Mandan Site (No. 3).

was secured here, although it was necessary to go below the sod to find anything.

The Sperry Site. (No. 39.) Four miles further up on the same side is the Sperry site, located on the point of a high bluff where Burnt Creek enters the Missouri River bottoms. The creek flows along the east and north base of the bluff while the river bottoms are along the west base. This site differs somewhat in general appearance from others in the region. It is rather faint in places, but appears to show a ditch and wall across the narrow neck of the promontory, with the ditch continued as a terrace for some distance along the east side. The site was mapped and a good collection of pottery and artifacts taken without much difficulty. A significant feature was the easy discovery of several glass trade beads upon the ant hills. This is the only site in the region in which evidence of contact with the whites has been found. It would serve perhaps to fix the site as more recent than others in the region, and renders significant a claim by an Arikara that it was built by his people.

The Boley Site. (No. 5.) Almost directly across the river from the Sperry site is the Boley site, already described. A map was made at this point although part of the site is obliterated by a railroad cut. A good collection was also made here with great ease as pottery and artifacts were very plentiful.

The Burgois Site. (No. 40.) This site has been better described and more frequently mapped than any of the others. Only a short time was spent here in getting a small collection of potsherds.

CONCLUSION.

In pursuing the above-described work an impression gradually grew up that there were two rather distinct types of sites in the region, distinct enough in fact so that nearly every site could be referred readily to one or the other group. The center for one type seems to be below the Heart River, with the Huff site as perhaps the best representative. The second type is found at and above the mouth of the Heart River altogether, although the lower sites seem to overlap. A basis of racial difference seems hardly practicable as sites of both types can, with little question, be attributed to the Mandan. A reasonable conclusion therefore seems to be that the two types must represent a difference in time and culture between two periods of occupation by the same tribe. This agrees well with the historical traditions of the Mandan, and seems a fair hypothesis although much longer and more detailed work would be required to demonstrate it fully.

As to the actual differences, the descriptions and maps will give some of them, but unfortunately many of the very old sites were beyond mapping. In our pottery collections, however, there seems to be an opportunity for the working out of pronounced differences which seem to go with the two types of sites. The collections were not sufficiently large to get at many differences, but one at least seems to be pretty clearly shown.

The differences which we believe to be shown by a general examination of the sites are as follows: The lower or older sites are more heavily grassed over when undisturbed, artifacts are almost impossible to find until a thick layer of sod has been removed, whereas on the upper sites the sod is thin or absent and many artifacts are present on the surface. In the older sites the area is much larger for the same number of house rings, the rings are spaced further apart, the area is more level with only low mounds occurring occasionally, the carefully planned wall and ditch with bastions occur with the exception of the Molander site only in the lower territory where we find three marked examples of it with most of the other sites too nearly obliterated to show whether this feature was present at all. The examples are the Shermer, Huff, and Ward sites. As to the Molander site, in many features it seems to resemble the older group and it may have been built by a pioneer group from the older villages. The Huff site is a wonderful example of well worked out fortifications, and unquestionably antedates any possible white influence. In connection with this feature of fortified villages with bastions it is interesting to recall Vérendrye's descriptions of such features at the Mandan villages.

As has been said, differences in pottery seem to agree with the ones enumerated above. Other artifacts seem to be pretty much the same for all sites and do not occur in such quantities as does the pottery. Some difficulty was encountered in working out a graphic plan for showing the difference in pottery as nothing but small fragments were secured from any site. However, a rather arbitrary plan of tabulation was worked out which seemed fairly satisfactory, and which at least brings out one difference very clearly. It is possible that with much larger collections a number of other very interesting features could be worked out. As our collections varied much in numbers of pieces only broad and unmistakable features could be differentiated.

The plan used is the tabulation of all pieces from each of the different sites according to a list of specific features of decoration, quality, etc. The following features were selected for tabulating: the number of red

or brown and black pieces from each collection; the number of plain, unornamented rims from thin ware; the number of plain, unornamented rims from thick ware; the number of pieces showing exceptionally fine and skilful work; the number of pieces showing incised herring-bone pattern decorations; the number of pieces showing fingerprint ornamentation; the number showing decorative ears, knob or lugs on the rim; the number showing decoration by pressing something resembling a string of flat beads into the wet clay; the number showing a decorated border around the top of the pot; the number showing the rim itself decorated as well as the border; the number with outside and inside decorated border, the number showing outside and inside border and rim, all three decorated; the number showing the string mark decoration widely spaced; and the number showing these string marks spaced closely together.

The table worked out from collections from the fourteen sites is given herewith.

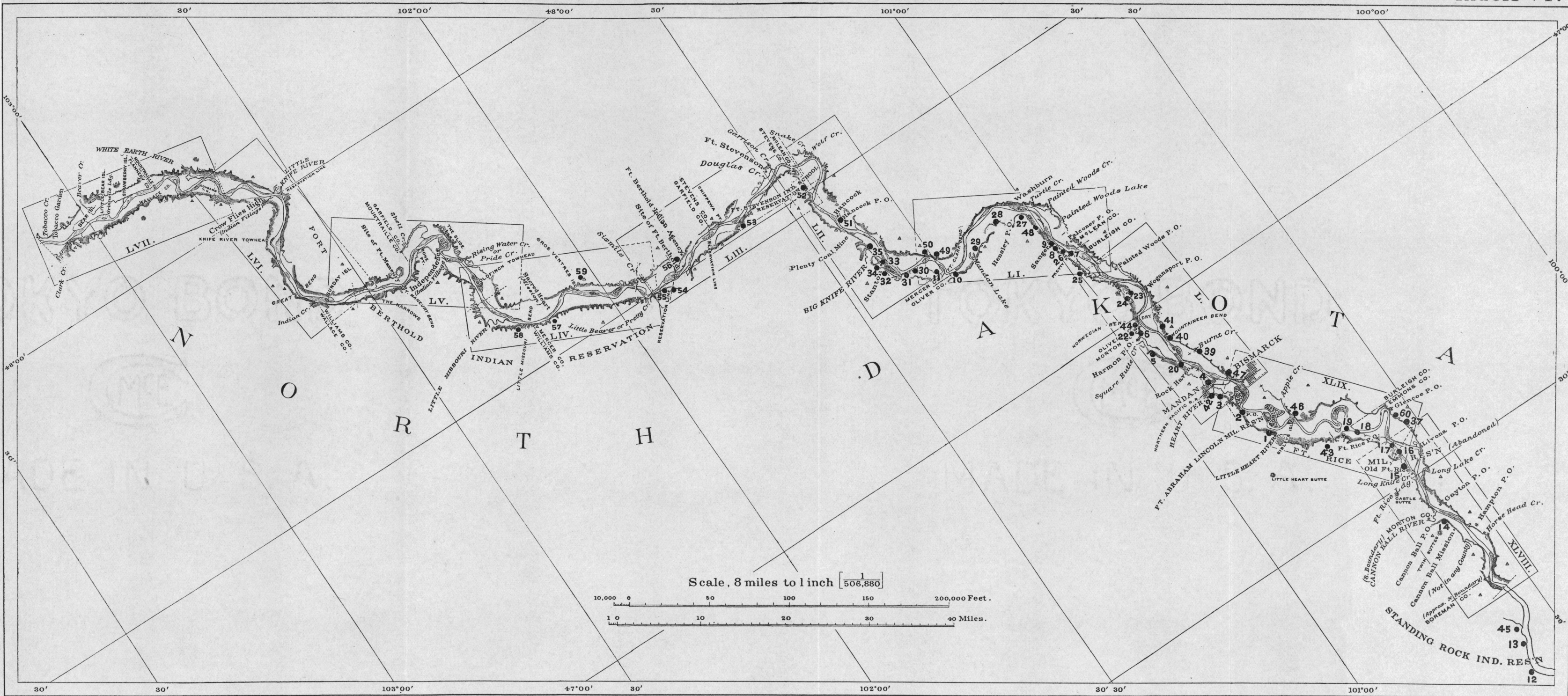
Site	Red	Black	Plain thick rim	Plain thin rim	Herring-bone pattern	String lines close	String lines wide	Ears	String decorated edge	String edge and border	String edge, border and inside	Finger mark decorations	Very fine	Only body decorated
Cannonball	7	49	8	0	0	0	3	0	4	0	0	3	0	2
Fort Rice	12	14	0	0	0	0	6	1	2	0	0	3	0	6
Shermer	25	98	17	1	3	0	14	1	11	0	0	14	3	15
Glencoe	20	63	0	2	5	2	8	1	9	1	0	2	4	9
Huff	5	32	1	0	1	0	11	0	1	0	0	1	0	11
Eagle Nose	3	60	13	0	0	1	14	2	3	3	5	3	1	7
Bad Water	5	59	7	7	1	0	11	2	2	0	0	16	0	11
Holbrook	7	23	0	0	0	3	17	1	5	1	1	0	2	10
Ft. Lincoln	46	115	4	2	18	32	16	0	5	14	1	19	6	36
Motsiff	2	19	4	2	2	8	1	1	1	1	4	2	1	6
Ward	20	151	1	0	2	11	37	2	1	0	0	7	0	41
Sperry	2	53	8	0	1	22	1	1	10	1	1	1	3	9
Burgois	9	32	11	0	1	14	2	2	3	3	2	4	2	5
Boley	21	115	17	8	5	35	6	1	12	2	2	2	1	29

String ornamentation is, of course, the predominating method used in this region and hence most of our differentiation is based upon variations in that feature. A glance at the table shows that the single feature which shows marked and certain differences between sites is that of widely or closely spaced string-mark lines. Not only is this

difference pronounced between sites, but also between groups of sites which coincide with the groups as determined by other data. The sites grouped as the lower and older are the Cannonball, Fort Rice, Shermer, Glencoe, Huff, Eagle's Nose, Bad Water, Holbrook and Ward. The later or upper sites are Ft. Lincoln, Motsiff, Boley, Sperry, and Burgois.

The figures from the table demonstrate that all of the older sites have a very heavy proportion of the pottery with string marks with the lines widely spaced on the pot surface. On the other hand, we find the preponderance of pottery showing the narrowly spaced lines to be almost as great in the newer group of sites. The Holbrook and Ward sites, uppermost, and presumably latest of the older group seem to show more or less of a transition, the Holbrook site showing seven wide and nine narrow, the Ward showing thirty-one wide and fifteen narrow. Larger collections might change indications in the case of these two but could hardly be expected to do so in the cases of most of the other sites. Incidentally it must be noted that the Sperry site, indicated by some evidence as the youngest site, shows the greatest preponderance of the closely spaced line pieces.

An approximate total of the pieces in the collection from each site may be obtained by adding the number of red or brown and black pieces for each site.



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Fig. 14. Archaeological Sites along the Missouri River.
(The numbers refer to the text.)

Drawn by K.A. Widén

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