

Plate I

1. (a) Medicine Valley, showing promontory on which Owens site is located.
2. (b) Owens site, with Medicine Creek in back ground.
3. (c) Owens site, house 3. Entrance toward east.

**PRELIMINARY NOTES ON THE ARCHAEOLOGY
of
MEDICINE VALLEY
in
SOUTHWESTERN NEBRASKA**

By Waldø R. Wedel

An Unworked Prehistoric Field in Nebraska

During the period from May 19 to June 9, 1933, the writer had the opportunity of engaging in archaeological field work under the auspices of the Nebraska State Historical Society. At the suggestion of Mr. A. T. Hill of Hastings, Director of the Field Archaeology of the Society, the valley of Medicine Creek in Frontier County was selected as the scene of operations. Dr. W. D. Strong, formerly of the University of Nebraska and now of the Bureau of American Ethnology, had spent several weeks on the Republican near Franklin in the summer of 1930, and disclosed extensive remains of sedentary corn-growing peoples. In view of this fact and in the light of reports of sites further west, it seemed advisable to extend the investigations up the Republican drainage. Save for the superficial activities of local collectors, this area, perhaps one of the richest in the state from the standpoint of archaeological remains, had previously received no attention from archaeologists. Nor had any attempt been made to distinguish the old prehistoric remains from those of the late historic Plains Indians. In brief, the locality gave every indication of repaying careful work, even with the limited time and funds at our disposal.

Co-Operation in the Work

The writer wishes to express at this point his sincere appreciation for the splendid cooperation received on every hand. The Historical Society, first of all, deserves commendation for its support of the work, and furthermore, for the freedom from hampering restrictions as to policy. To Mr. A. T. Hill, pioneer in the field of Pawnee archaeology and instigator of the present researches, we

are deeply grateful for numerous helpful suggestions without which our results would inevitably have been far less gratifying. Thru Mr. Hill's efforts, contacts were readily made with local men and their aid enlisted. In this connection, thanks are due to John Howe, Stockville merchant, who guided us to a number of sites, including all of those on which excavation was done; also, for willing assistance in the many small but necessary items connected with the work. We are also indebted to the following men who kindly permitted excavation on their farms, viz., Messrs. Harry Phillips, G. G. Thompson, and Everett Owens, all residing in the Stockville vicinity, and to Ben Richardson, of the Hastings Museum, who furnished the photographs of the artifacts for this article. And last but not least, grateful mention must be made of the writer's active assistant, Mr. J. C. Samms of Hastings. Mr. Samms acted in the capacity of cook and general camp manager, as well as rendering valuable services in digging. To all of these persons, as well as to many not specified by name, grateful acknowledgement is here made for their cooperation in making our stay as pleasant as it was profitable.

The Medicine Creek Area

Medicine Creek is a perennial stream heading in the high plains of Lincoln County, some ten or fifteen miles south of the city of North Platte. It pursues a winding course for some forty miles toward the southeast, emptying into the Republican river just below Cambridge. Throughout the major part of its course, it flows thru a valley varying in width from two to five miles, bordered by buffs up to 50 or 100 feet in height. At frequent intervals, small terraces of from one to 100 acres extent raise their flat surfaces to a height of perhaps 30 feet above the valley floor. The village sites, as a rule, occupy these terraces, and are placed well above reach of even the worst floods. Formerly, the extremely winding course of the creek resulted in more or less regular overflows during the spring rains sometimes even flooding the entire valley bottoms. Dredging operations a few years ago straightened and shortened the course of the stream, and today it has a deeply cut narrow channel within the old valley. A half-century ago, the bottoms

were thickly wooded; today, agricultural activities have brought clearing of the reclaimed valley. Here and there may still be seen small stands of cottonwood, willow, and walnut, with a few individuals of Osage orange.

Ideal Habitat for Indians

Prior to the changes in landscape brought about by the white men, the valley of the Medicine was almost ideally suited to Indian occupancy. Springs were doubtless abundant along the base of the bluffs and in the side canyons. From the stream could be taken shellfish and turtles. In the timber there was an abundance of small game, as well as deer, elk, and the like. On the high dry treeless uplands on either side of the valley was the range of the bison. The deep canyons and small tributary streams cutting back into the edge of the plains made it possible for the hunters, on foot, to approach their quarry with a minimum of trouble. Or game could be driven over the cliffs in roundups. Finally, in the fertile bottoms, there was ample space for growing of such crops as maize or Indian corn, beans, squashes, and gourds. Thus, with wood for building purposes and fuel, fresh water for domestic use, cultivable soil and game, all of the basic needs of the Indian could be readily satisfied within a comparatively limited area. The abundance of old village sites throughout the valley testifies to its suitability for aboriginal purposes.

Plan of the 1933 Exploration

The writer and his assistant, Mr. Samms, carried out excavations at three sites. All of these were located on the west or right bank of the valley, below and within ten miles of the town of Stockville. In addition, some five or six others were briefly visited and surface sherd collections made. In this report, we shall first describe briefly each of these villages and the house sites excavated. The next section deals with the artifacts and specimens recovered. In view of the fact that all three villages belong to the same basic culture, the remains may be so grouped for discussion. It is to be hoped that the reader will make some allowances here,—collections are in Lincoln, while the report is being prepared in Berkeley from field notes and photographs. The paper concludes with an attempt to determine who the occupants of the Medicine

were in terms of historic tribes, what their relations were to neighboring areas, and their probable fate—so far as we may safely speculate upon these points.

The Gammill—Phillips Site

Excavations were begun at a large site on the Gammill farm, now occupied by Harry Phillips, and located about six miles southeast of Stockville. The village occupied a terrace some forty or fifty acres in extent, just above the mouth of Elk creek. Considerable random digging had been done along the edge of the terrace, and sherds, flints, and animal bones were scattered about. There were no surface indications as to where one might dig with hopes of success. A number of test pits were dug at various spots, but nearly two days elapsed before a promising lead was found.

The only burial found was encountered during this preliminary work. It lay at a depth of about 23 inches, and could easily have been inclosed in a pit 24 by 12 inches. The body was a young child, still retaining its milk teeth. The skull, badly broken, was toward the northwest. The body was flexed, and lay on its right side with the arms doubled on the chest. There were no mortuary offerings directly with the skeleton. A flint knife was found about ten inches above, but there is no reason to believe that it was meant to accompany the burial.

In one of our tests, Mr. Samms encountered a very hard, reddish brown layer at a depth of some 14 to 16 inches. This formation gave every indication of being the baked floor of an earthlodge. A trench was accordingly cut across the burned area, and the edge was found to be very clearly marked and easy to follow. A few hours work sufficed to trace the periphery of the area, which measured only fourteen feet in diameter. It lay at an average depth of 16 inches, with the floor sloping downward toward the central fireplace. Scattered about over the floor were charred fragments of wood, the remains of the roof beams left when the house collapsed. Lumps of clay with grass impressions showed that the poles had been covered with brush and grass, and finally with mud. At a distance of about three feet from the fireplace were four postholes, forming a 5-foot square with the hearth at the center. About the edge, along the upward curving mar-

gin of the house floor and at a radius of seven feet from the fireplace were a series of 22 small postholes from 18 to 48 inches apart and about ten inches deep. The doorway was apparently toward the west. A large storage vessel lay on the east edge of the floor, apparently broken by falling roof timbers. Artifacts were quite scarce generally. However, the house ruin itself amply repaid the work of excavation, in that it gave exceptionally definite information as to nature of construction. It differed from the earth-lodge remains elsewhere in Nebraska in its small size, and perhaps, in that the floor appeared to have been intentionally baked by burning brush or grass on it (See P1 II, a; Fig 1)

The depth of the house at the time of its use was probably not over six inches. The upper eleven inches of the soil cover consists of light gray alolian deposit, unmixed with any remains, and showing no break in character at the edge of the house. A black humous layer, into which the house pit was dug, underlies this deposit, and appears to be fairly continuous over the entire terrace. This we believe to have been the village surface at time of occupancy. Sherds, flints, charcoal, and other village detritus occur on and in this horizon, but are virtually absent in the gray soil above and on the present surface. In other words at least ten inches of dust and sand have been carried by the wind onto the village site and deposited since its abandonment. If we knew the rate of accumulation and if this rate remained constant throughout, an estimate as to possible age could be given.

The Thompson Farm Site

After several days of work at this site Mr. Hill thought it advisable to transfer our activities elsewhere. Accordingly, we moved to the G. G. Thompson farm, about a mile south of Stockville. Here, on a point within the junction of Cedar Creek and the Medicine, a single house site was found and excavated. It proved to be larger than that at the Gammill site, measuring approximately 30 by 27 feet. (Fig. 2) Unlike the former, also, it was rectangular in outline, with long axis extending northeast-southwest. At the edges the floor was about 12 inches deep, sloping to a depth of 24 inches at the fire-

place. The fireplace was a basin of red-burnt clay 30 inches across, and filled with white wood ashes. There were again four central posts, at a radius of about 8 feet from the fireplace. The entrance, though not positively located, was apparently toward the southwest.

Near the south, east, and north corners were found respectively, three caches or storage pits. These were from 2 to 4 feet in diameter, slightly larger at the bottom than at the mouth, and averaged about 30-40 inches in depth. None of the three were especially productive, though potsherds, flints, animal bones, and the like were found in each. To all appearances, the caches were emptied of their contents such as grain and possibly meat, prior to abandonment of the house, and filled with village rubbish. The implication here, of course, is that the inhabitants were in no great hurry to leave and had ample time to gather up their possessions. However, two large vessels were found on the floor, one of which at least appears to have been intact at the time of abandonment. It was lying on its side when found, and the portion nearest the surface of the ground had been carried away, apparently by the plow.

The floor in this house was much more poorly preserved than at the Gammill site, and in spots was very difficult to trace out. The postholes were larger; those in the center were all over 18 inches in diameter and 24 inches deep, while the outer ones average about 12 inches across by 18-30 inches in depth. In a few cases, traces of rotten wood were detected in the holes. Most of the specimens were recovered from the edge of the floor, along the line of outer postholes. As previously, so here, the house had evidently stood on an old surface, since covered by a foot or so of clean wind-deposited soil.

Perhaps a quarter of a mile to the south of the terrace on which the house stood, and across the Cedar, was a high prominent hill ideally suited for burial. The spade brought up remains such as fragments of pottery, clamshells, and flints from a depth of about 10 inches at several places. However, six pits to depths of 30 inches or over failed to reveal any deeper traces, and seemingly bore out the positive assertions of local collectors that there was no burial ground on the hill.

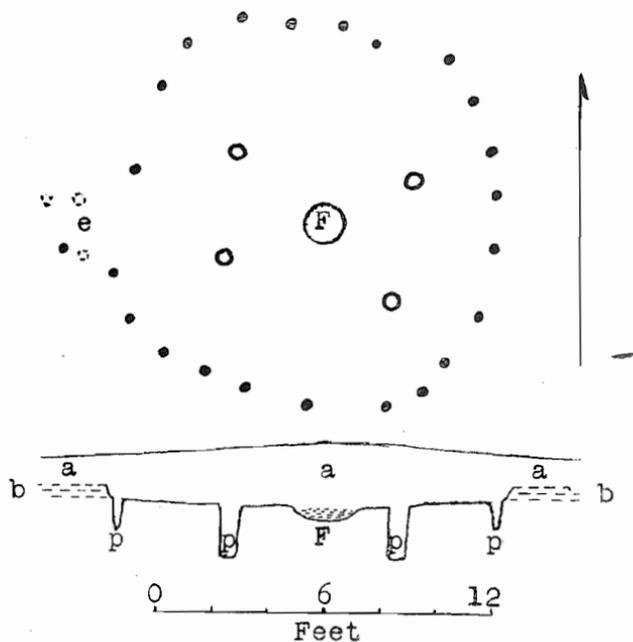


Figure 1

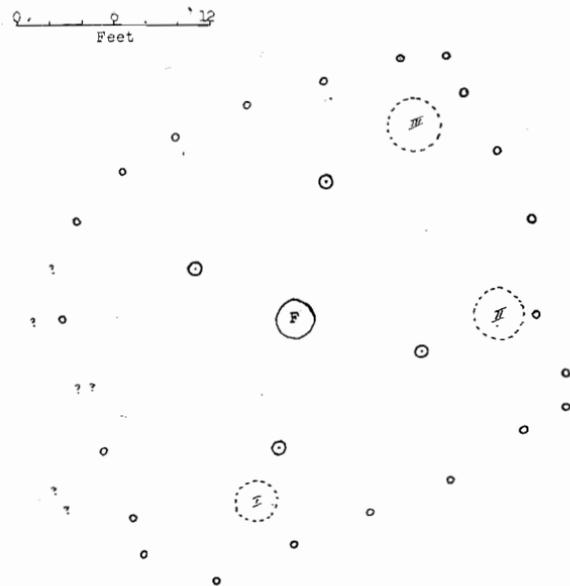


Figure 2

1. Ground plan and cross section of house 2, Gammill site. a, clean aeolian deposit 11 inches thick; b, humous stratum marking village level at time of occupancy; e, entrance; F, fireplace; p, postholes.
2. Ground plan of house 1, Thompson site, 30 by 27 feet, 16 inches deep. F, fireplace; O, central postholes; I, II, III, caches; o, outer postholes; entrance probably toward southwest but not marked by postholes.

The Everett Owens Site

The third site investigated was on the Everett Owens place six miles southeast of Stockville. At this point a long narrow tongue of land projects into the valley, forming a flat-topped promontory perhaps forty feet high. The land falls away steeply on three sides, and the point obviously nothing more than a remnant of a formerly much more extensive terrace. A few remains still exist on the point, and houses probably were once scattered for some distance over the higher bluffs near by.

Work was begun at the north edge of the point, where a thin black line at a depth of about 28 inches suggested a house floor. The suspicion was confirmed when a very hard, well-burned area was uncovered, bordered at the inner edge by a row of postholes. One of these postholes yielded perhaps two quarts of fine decomposed wood, leaving no question as to the character of the find. Unfortunately, the greater portion of the house had been eroded away, leaving only a narrow strip perhaps three feet wide by ten feet long. The upturned edge of the floor was very clearly defined, however, and four postholes were found along it. As at the previous sites, the floor had evidently been excavated to a depth of about six inches into an old land surface, now buried beneath some 28 inches of clean soil. On the south side of the house was a small pit perhaps 18 inches square and six inches deep, filled with ashes. Its purpose is unknown, unless it represented merely a temporary "garbage" pit. Scattered about over the ancient village surface were numerous sherds and the usual camp detritus. The form of the house was difficult to determine. It seems to have been circular, but there is an equally strong possibility that the remnant was only the corner of a rectangular structure. It was designated house 1. (Fig. 3)

About forty feet to the southwest, also on the edge of the bluff was found a similar remnant of a second house. There were eight postholes, so arranged as to suggest the corner of a round-cornered house. The direction of the entrance is uncertain, but there is reason to believe that it was toward the east. (Fig. 3)

Discouraging as these results seemed, there remained a conviction that somewhere on the point there must be an intact house ruin. Diligent prospecting of the entire

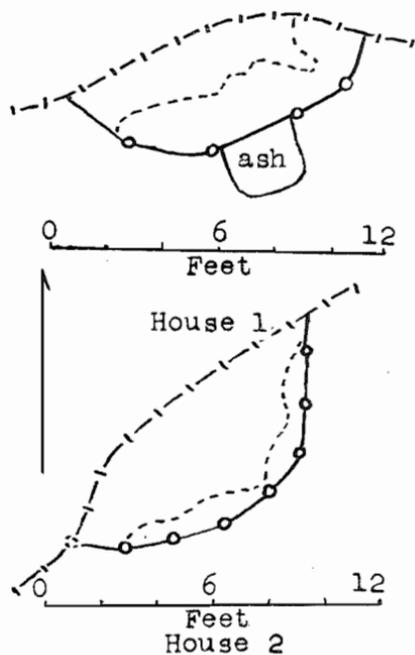


Figure 3

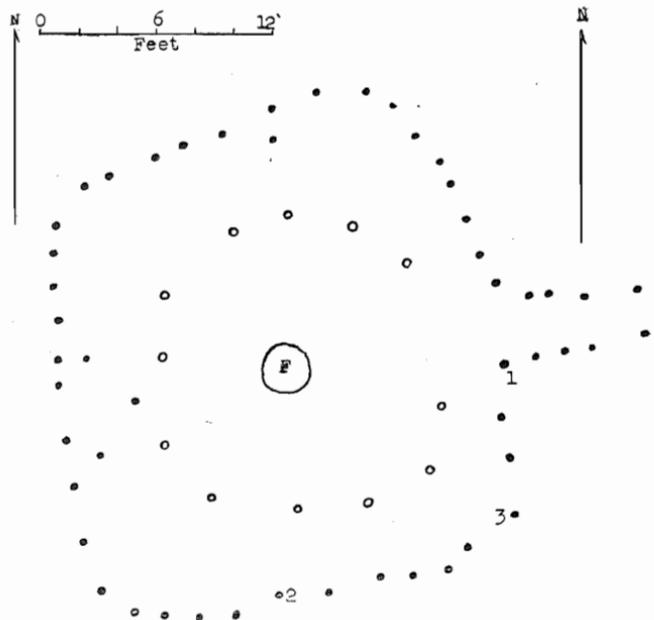


Figure 4

3. Remnants of houses 1 and 2, Owens site. Diameter unknown, depth 28 inches. o, outer postholes; -----, edge of remaining house floors; -.-.-., edge of bank.
4. Ground plan of house 3, Owens site. Depth below ground surface 24 inches, diameters 26 by 23 feet; F, fireplace; O, central postholes; o, outer postholes; 1-3 restorable vessels found on floor; entrance slightly north of east.

point at twenty-foot intervals at last was rewarded by the discovery of house 3, in several respects the best yet found. (Fig. 4; Pl. I, c)

Most Important House Site

The house floor lay at a depth of 28 inches beneath the present surface, or about 6 inches below the ancient village level. It measured approximately 26 by 23 feet, long axis north and south. In the center was the fireplace, 36 inches across and filled with 6 inches of wood ash. The soil beneath the hearth was burned a bright brick-red to a depth of over 4 inches, indicating long usage. At a radius of about 8 feet from the fireplace was a circle of twelve postholes, spaced at intervals of 30-48 inches. On the east side was a double space as though a thirteenth post had been omitted to permit free passage from fire to doorway. Four pairs of postholes formed an entrance about 7 feet in length toward the east. On the west side, between the inner and outer rows, were three additional postholes. These may have been connected in some way with an altar, though it is obviously impossible to determine their precise use. An extra posthole was also found on the north; it may have been used in repairing a falling roof or wall. The floor, as a whole, was well preserved and easily followed out. Most of the postholes yielded disintegrated wood, sometimes in large quantities. From one on the south side was taken a badly-rotted piece of oak or cedar about 24 inches long, originally perhaps 6 or 8 inches in diameter. This was laid aside to dry, but the ever-present visitors very quickly removed it for souvenir purposes. The photographs provide a clearer notion of the general set-up than can be obtained from the verbal description. There were no sub-floor caches, but several broken jars were found in various parts of the house. The artifacts will be discussed later.

A "Squaw Cooler" Site

With but two days remaining, strenuous efforts were made to locate at least one more house ruin on the Owens place. The point having been exhausted, we pushed our investigations further up the hill. Here, on a knoll perhaps 100 yards southwest of house 3, the tests showed mixed charcoal and burnt clay to depths of 12 and 18

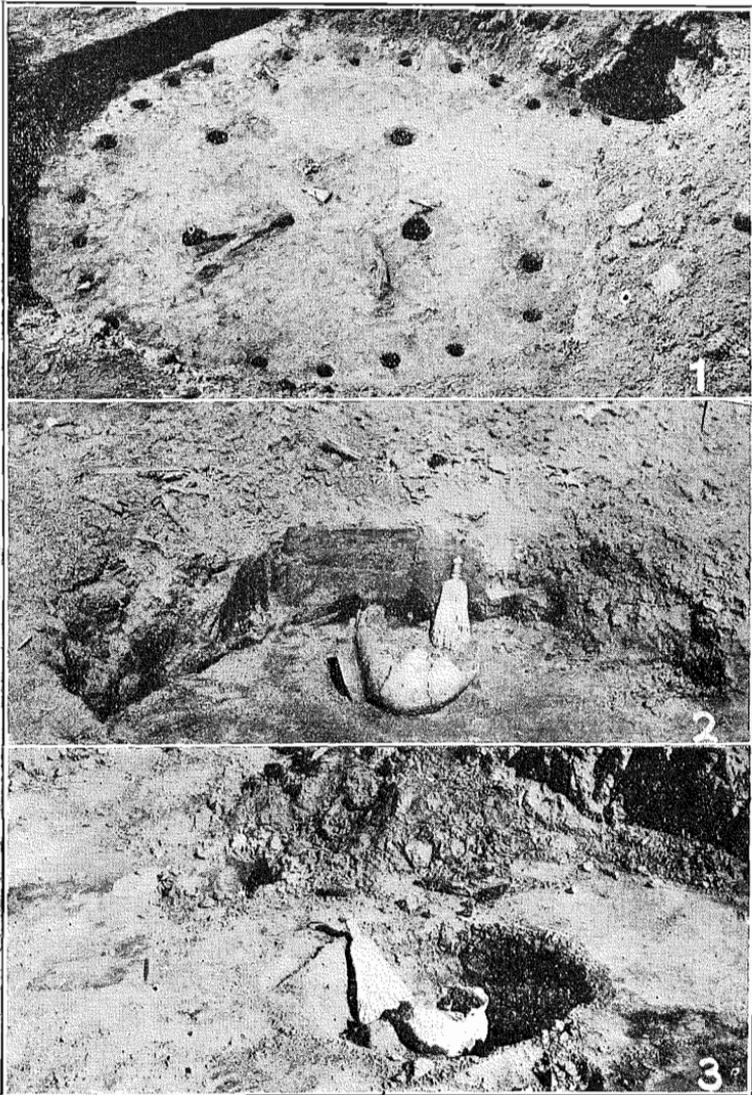


Plate II

1. (a) Gammill site, house 2. Note fragments of fallen roof beams lying about central firepit.
2. (b) Broken jar on floor of house 1, Thompson site.
3. (c) Broken jar on floor of house 3, Owens site.

inches. Soon after, a faint dark line was detected at about 18 inches depth. Assuming this to be a floor, we proceeded to remove the earth above it. Large quantities of sherds lay on the "floor," at times forming virtually a pavement. Shovels were discarded for trowels in order to minimize breakage. Flint implements, such as drills, knives, and scrapers were also plentiful. Half a dozen bone awls, more than were obtained throughout the remainder of the work, represented about a day's find. Despite careful search, however, not a single post-hole could be located. The sherd area was perhaps 18 feet across. Near its center was a lens of burnt twigs, sticks and grass about 3 feet in diameter, apparently a hearth but very slightly used. About 8 feet south of the hearth was an ill-defined and barren cache 3 feet across by 5 feet deep.

That this final project was a regular habitation seems rather improbable. There were no postholes; the fireplace was not at all excavated as is generally the case; and the "floor" showed none of the definiteness characteristic of the other houses examined. The great abundance of pottery, stone implements, and bone awls, plus the high pleasant location suggests that this may have been the site of a "squaw cooler," or summer work shelter used by the women. Such a shelter, as used by most of the historic plains tribes, would consist of only four or six posts supporting a flat roof of brush. When this collapsed, it would leave no traces as would the more substantial dwellings. This seems the more likely in view of the fact that no pit had been dug, as was done in all of the other houses cleared. Burnt animal bones probably indicate culinary activities.

Ancient Earth Lodges, Not Tipis

Possibly the reader's curiosity has been aroused as to the type of house used by these early inhabitants of the Medicine. Contrary to local opinion, they were not the familiar skin-covered tipi used by the Dakota and other tribes of the region in the last century. These buffalo hunting tribes were always on the move, hence required a light portable dwelling. The houses excavated were doubtless very similar to the dome-shaped earth-covered lodges characteristic of the Pawnee, Omaha and other

corn-growing tribes of the Missouri river. They were constructed as follows: A shallow pit from 14 to 30 feet across was first dug. At the center was a small basin for the fireplace. About the fireplace, the distance varying with the size of the lodge, were placed from 4 to 12 forked posts, each perhaps 8 to 12 feet high. Beams were laid from fork to fork. Other crotches, perhaps 6 or 7 feet high, were placed about the outer edge of the pit, and connected by horizontal beams. Poles were then leaned against the outer circle, with their lower ends resting on the ground outside the edge of the pit and their tops flush with the beams. Long poles were laid with their butts on the outer circle of beams, their upper ends supported by the inner beams and posts, and their tips not quite meeting above the center of the floor. Lighter poles were laid horizontally over this frame, and were augmented by brush and grass. A layer of earth or mud over the entire structure completed the house. The doorway was similarly constructed, having a tunnel-like appearance when completed. The hole at the apex served as a smoke vent. Beds of buffalo robes were probably placed about the walls. A slanting crotched pole set into the ground served as a crane from which cooking pots could be suspended over the fire. Such a dwelling would be warm in winter and cool in summer, though not especially pleasant during prolonged rainy spells. From a distance, too, it would be far less conspicuous than a skin tipi, a point worthy of consideration in the event hostiles were in the neighborhood.

Brush and pole sun-arbors were probably used during the heat of the summers as workshops and lounging places. During hunting trips, skin tipis may have served as well, but obviously there are no remains of these.

Pottery the Chief Test of Ancient Peoples

In discussing minor antiquities, first consideration must be given to the ceramic remains. To the archaeologist, interested in reconstructing culture history, pottery offers the most reliable clues. There is possible an almost infinite variety of shapes, colors, decorations, and qualities in clay, as contrasted with stone and bone. Consequently, where similar types of pottery occur in different sites or localities, there is no good reason to

assume that the people who made them were the same or at last were in intimate contact with one another. Furthermore, the trained observer does not require a complete vessel to make his deductions. Broken fragments may be of very nearly as much value as a whole pot. In Nebraska, the rims are the most distinctive feature both because of their form and decoration.

The Medicine Valley Pottery

Generally speaking, the pottery of the Medicine valley is medium to dark gray in color. Occasionally pieces are a light to reddish brown. The paste is quite fine, and tempered with sand or grit. No shell tempering was found. Surface finish was generally good, but vessels were never "slipped." Frequently, the bodies of the vessels were impressed while damp with cord-wrapped paddles. These cord impressions were then partially obliterated by wiping, perhaps with the moistened hand to produce a roughened surface. The walls of the vessels were usually moderately heavy, but in a few cases appear to have been quite thin.

As to shapes, we may generalize from the five or six restorable vessels found. The predominant form seems to have been a large globular jar with constricted neck and mouth and a rounded bottom (P1. II, b, c; P1. III, t). The capacity of these vessels ranged up to about three gallons. Very rarely they were provided with perforated "ears" (P1. KKK, o, t) or vertically placed loop handles. (P1. III, p). No traces of bowls, platters, or lids were found. A tiny vessel with slightly flaring mouth came from house 3 at the Owens site. It was about 3½ inches tall by 2½ inches in diameter (P1. III, u). From the very crude modeling, we infer that it was the product of some beginner in the ceramic art, perhaps a child.

In plate III, a-s, are illustrated some of the rim types recovered in our work. The most common type was thickened at the lower edge, and overhung the constricted neck like a collar. Usually, parallel lines from three to eight in number encircled this rim. Perhaps 60 percent of all rims showed these parallel incised lines (P1. III, a-d). Less common were crosshatching so as to produce diamond-shaped figures (P1 III, n), and chev-

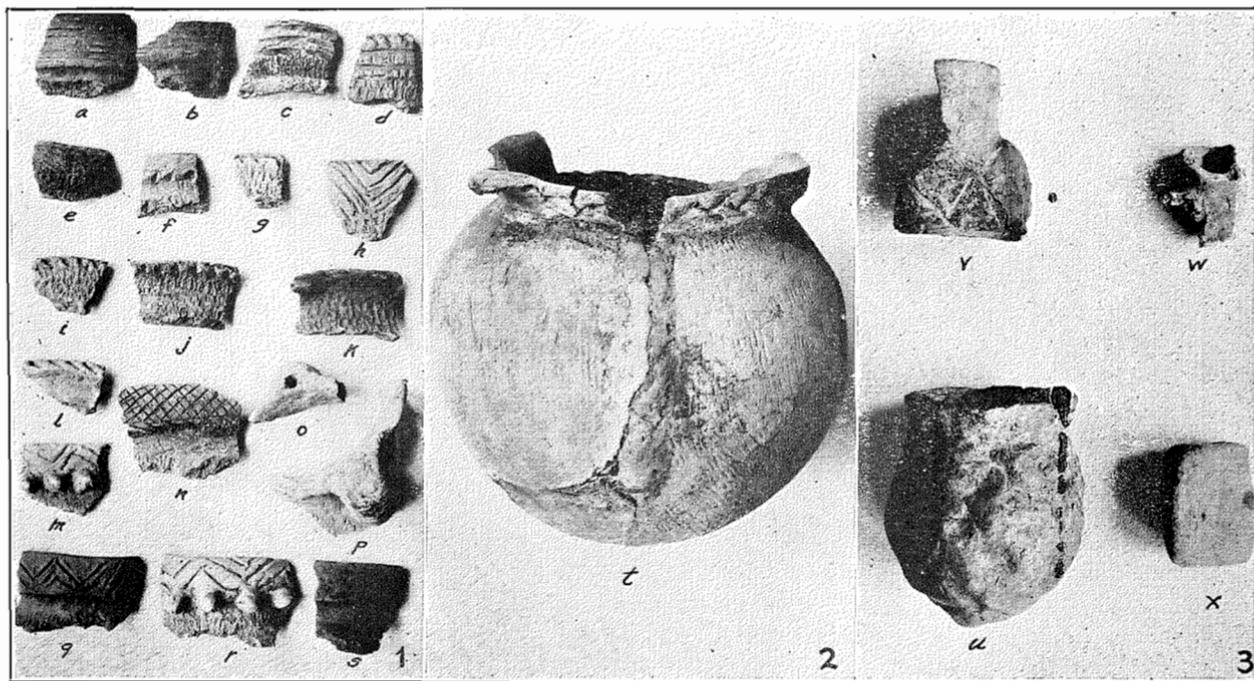


Plate III

- a - s. Rimsherds from various sites on Medicine Creek. a, b, Gammill site; c-p, Owens site; q, s, Thompson site.
 t. Restored pot from Owens site, house 3. Note the primitive attempt at mending an old break by smearing with mud and refiring.
 u. Crude pot from Owens site, house 3.
 v - x. Stone pipes from Thompson site, house 1.

ron motifs (P1 III, m, g, r). Small diagonal incised elements were characteristically placed along the lip. This was especially true of vessels with very narrow rims rather than of those with the wide collar type of rim. Relief ornamentation occurred only as small nipple-like protuberances along the lower edge of the collar. (P1. III, m, r).

Indian Repairs to Pottery

Of unusual interest is a medium-sized jar from house 3, Owens site. A crack extends from the rim down the side almost to the bottom. Instead of discarding the pieces, the aboriginal owner plastered mud along the break, smoothed it carefully, and refired the jar. When the vessel was found, the old break had re-opened, as is shown in Plate III, t. This primitive attempt at mending affords some indication of the regard in which the pots were held. This particular specimen is unique, further, in having two perforated "ears" or tabs, probably for suspension.

Painted decoration, like slip, seems to have been wholly absent from the area. No puebloan sherds were found.

Medicine Area Stone Implements

Work in stone included chipped celts, knives, scrapers, drills, and arrowpoints. Celts varied from 2½ to 4 inches in length. They were made principally of brown or yellow chert, obtained locally. They were probably used for scraping, hacking, or in skinning large animals (P1. IV, am). Knives varied from the four-edged diamond-shaped type to retouched flakes (P1. IV, ad a e). Scrapers were perhaps the most common stone implement. They were almost exclusively of the "keeled," "plano-convex," or "thumb-nail" type, so widely diffused over the Plains area (P1 IV, af-al). In size they ranged from less than an inch to nearly three inches long. The material was either chert or chalcedony.

Drills were either T-shaped or straight (P1. IV, aa, ab, ac), and were made of chert. They were probably used for perforating heavy animal hides, for carving bone, or perhaps for incising pottery.

Arrow points were of several types and various sizes. Most characteristic are small notched points (P1. IV, r,

x, y), occasionally with a third basal notch (P1. IV, w). Similar types prevail on the Republican about Franklin and elsewhere. Heavier triangular and stemmed points, suggestive of eastern Nebraska, are rather sparingly found. Possibly some of the larger specimens were used as spear or dart points.

Ancient Pipes Recovered

Three pipes were recovered, all from the Thompson site. One was a small oblong block of limestone, biconically drilled at right angles (P1. III, X). This, according to Mr. Howe, is the typical form of the area. A portion of a broken limestone elbow pipe recalls similar pieces from the Franklin vicinity (P1. III, w). The third specimen suggests the so-called Siouan type (P1. III, v). The stem is broken, hence the original length is indeterminate; it projects slightly beyond the bowl to form a sort of prow. The bowl is subconical, with a portion missing. Simple linear incising is evident on the stem. The material superficially resembles catlinite, but on the freshly broken surface has a brown, clayey appearance. We believe it is stone. As in the prehistoric sites on the Republican and Loup drainages, clay pipes appear to be extremely rare or absent on the Medicine.

Bone Implements—Use and Making

Bone was fashioned into implements of various kinds. Awls were made from the leg bones of animals, deer metapodials being particularly so used. One end of the bone was usually cut off with a flint knife; then the bone was split and ground to a point on a piece of sandstone. The butt consisted of the joint sometimes rounded off for convenient grasping. These awls were used for punching and sewing skins, and perhaps in making baskets. All of the specimens found came from the "workshop" or "arbor" at the Owens site (P1. IV, c-h).

Hoes for agricultural purposes and spades for digging caches and house pits were manufactured from the shoulder blade of the bison. They were usually trimmed off square at the bottom and then given a sharp edge. Use gave them a high polish. There is no evidence to show that they were hafted, and most likely they were simply held in the hand. Picks or heavy punches were made out of the Fibular Tarsal bones of the bison.

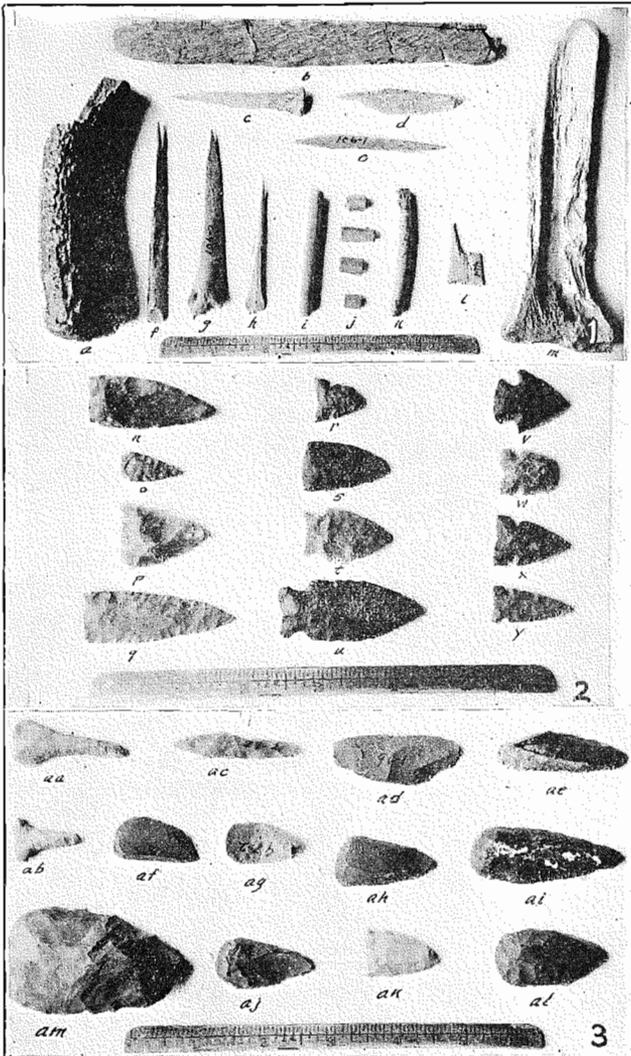


Plate IV

- a - m. Bonework from various sites on Medicine Creek. a, b, i-m, from Thompson site; c-h, from Owens site.
- h - y. Arrow points from sites on Medicine Creek. n-p, Owens site; q, Gammill site; r-y, Thompson site.
- aa - al. Flintwork from sites on Medicine Creek. aa, ac, ak, al, Thompson site; ad-ai, Owens site; am, aj, Gammill site.

From the Thompson site came a flat bone object 8 inches long by less than an inch wide (P1. IV, b). One end is smoothed off to a round edge; the other is broken. The entire object is well polished from use. Its purpose is uncertain, but it resembles the wooden weaving swords of the Navaho and may have been similarly used. This suggests that the aborigines made cloth, perhaps of bison hair. A similar but more slender implement in the Hill collection at the Hastings Museum comes from a prehistoric site near Elba, on the Middle Loup.

Fleshing tools, used to scrape meat and fat off the hides, were made from the split leg bones of elk or bison (P1. IV, m). These were rounded off and smoothed at the end. The toothed type, characteristic of the historic Pawnee, is at present unknown from our area.

Tubular bone beads are of two general types. Most commonly they are less than an inch long. Two specimens each over 2 inches in length were also found. All of those figured are of bird bones, and come from the Thompson site (P1. IV, l-k).

A single fishhook, still in process of manufacture, was recovered at the Thompson site (P1. IV, e). Unlike those commonly found on the Republican, it is of thin flat bone. There is obviously no means of determining how it was attached to the line.

Work in horn was decidedly scarce in our collection. A few antler tips, used as punches, were found. The base of a deer antler, cut to a length of about 5 inches, may have formed the handle for a flint knife blade (P1. IV, a). Similar objects are found elsewhere on the Republican, as well as on the Loup and Missouri rivers.

The Present Picture of Ancient Nebraska

Archaeology affords a decidedly one-sided picture of aboriginal life to the investigator. After the lapse of several centuries, there are left only the material remains of the vanished peoples. And even here it should be noted that objects of wood, bark, skin, basketry, and textiles are seldom or never found where climate is as moist and unfavorable as it is in the Plains. Only where such perishable materials have been charred by fire or left in dry caves can we hope to recover them. Still less is it possible to reconstruct society, religion, art, morals,

and similar abstract phases of civilization from the specimens turned up by the spade of the archaeologist. There are, therefore, very definite natural restrictions upon the conclusions which he may hope to draw from his finds.

Questions on Ancient People—and Answers

Among the countless questions put to the excavator by visitors, there are almost invariably asked, viz., who were the people under investigation? How long ago did they live? And what became of them? In one form or another, these are precisely the questions which the excavator is trying to solve. And, generally, they are probably the most difficult to answer definitely. However, realizing the limitations of the archaeological approach and bearing in mind the specific queries noted above, the following conclusions are tentatively presented:

The three sites investigated, and probably the majority of those in the Medicine Valley, are quite closely related to the culture of the Republican Valley, in the vicinity of Franklin and Bloomington. This is indicated by the very close resemblance in pottery and house types, arrow points, and certain elements in bone work, notably fishhooks and perhaps weaving swords. This culture apparently extends east to the vicinity of Red Cloud on the Republican. It occurs in slightly modified form on the Little Blue and Loup rivers, and may be considered the characteristic culture pattern of southern and central Nebraska. To this culture Dr. Strong has given the name of "Upper Republican," the type site lying about five miles southwest of Franklin.

How Ancient Nebraskans Lived

The aborigines of this particular area lived primarily by agriculture. They grew corn, beans, and squashes. To a lesser extent, they hunted the bison, elk, deer, antelope, and perhaps smaller game. Possibly they also used turtle for food. Wild seeds, fruits, berries and nuts completed their bill of fare. Unlike the historic Siouan and other bison-hunting tribes of the area, they dwelt in small, scattered villages of permanent domeshaped pole and mud lodges. These habitations stood on convenient terraces overlooking the valley, and were used year after year. The familiar conical skin-covered tipi of

later years may have been used during prolonged hunts, but it certainly was not the typical form of dwelling. The villages were not fortified and the people were evidently both peaceable and unmolested. As a result, they carried certain of their arts to high degree of perfection, notably pottery. Probably they also made basketry and wove cloth. In brief, they were very similar to the Pawnee of later times, who occupied much the same area. It seems reasonably safe to assume that the Upper Republican culture was carried by a widespread people who were more or less directly ancestral to the historic Pawnee. This relationship is further substantiated by similarities in pottery forms and decoration.

How Long Ago?

As regards the age of this culture, we have less definite conclusions to offer. Certain it is that the earth lodge villages of the Medicine antedate the arrival of Europeans. Glass beads, bits of copper, brass, and iron, and other trade articles have been found on the surface doubtless left by later nomad tribes. Not one single trace of white man's influence or culture was found by us, nor has such ever come to light from reliable excavations in sites of this culture. Hence, we may infer that by 1600 A. D. these villages had been abandoned and their inhabitants forgotten. From investigations elsewhere in the Pawnee area, we know what the culture of this tribe was in very early historic times. A comparison of early Pawnee with our Medicine creek material shows certain basic similarities, and leads us to believe that Pawnee culture developed from the Upper Republican pattern. At the same time, there are marked differences which indicate a long period of development. In brief, it is probable that the Medicine was abandoned by sedentary peoples 400 or 500 years ago, possibly much more.

As to the fate of the prehistoric occupants of the Medicine, we may surmise that they were pushed eastward by more war-like tribes. Perhaps the Comanche or some similar roving people, pressing southward through the Plains in prehistoric times, fell upon the peaceful farmers of the Medicine, raiding and harassing them. History is filled with records of the aged-old struggle between hunter and farmer. In the Plains, as in the

Southwest, the latter gave way, and moved eastward, to give rise to the Pawnee of historic times.

Such, perhaps, is the essence of the story of prehistoric man in the valley of the Medicine. But until further and more extended investigation is done, the full story must remain a thing of the future.

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