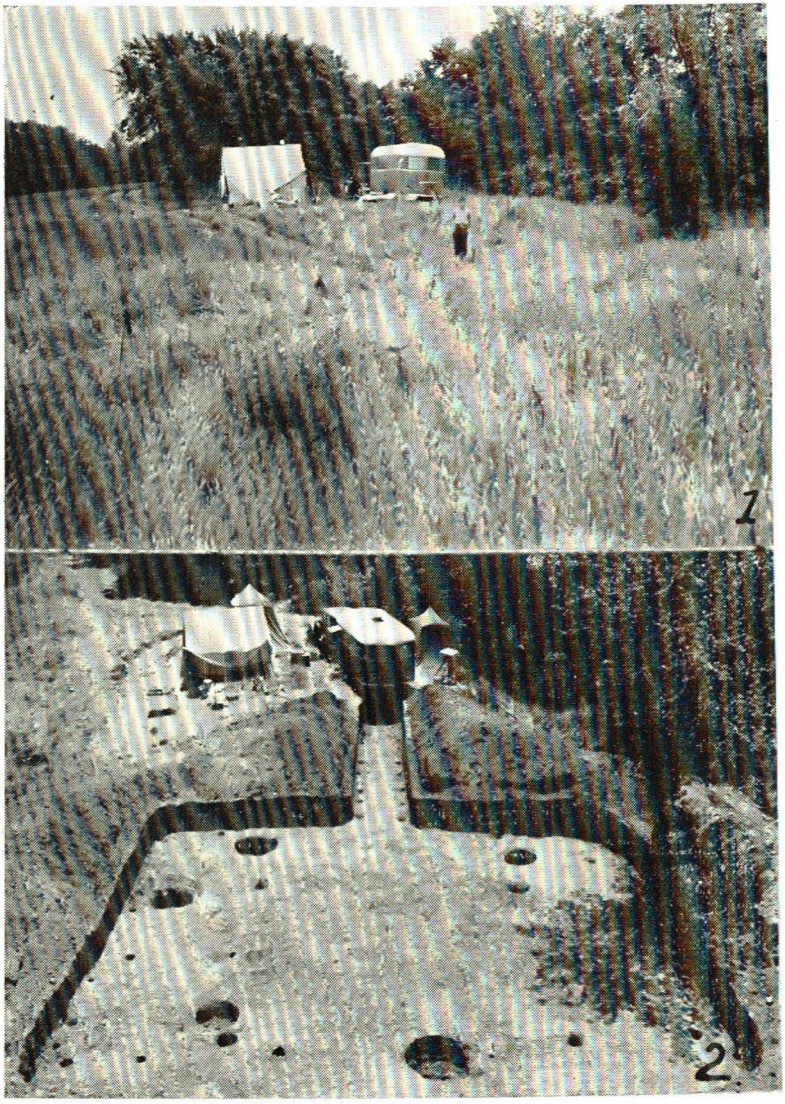

PLATE XI

1. Depression of House 1, Fontenelle Forest Site, before excavation.

2. House 1, Fontenelle Forest Site. Entrance to south.

FONTENELLE FOREST SITE

The site of the present city of Omaha was at least once before chosen as a location for human habitation, and the construction of white men's dwellings during this and the last century has been accompanied by the destruction of those of the former Indian inhabitants.[28] North and south of Omaha along the bluffs bordering the West bank of the Missouri River are still to be seen numerous depressions of varying size and depth marking the former locations of earth lodges. In every one of these which has come under our observation some digging has been done, although in a few instances the excavations have not been extensive. It is in this area that much of the work of Robert F. Gilder was done, several reports of which have appeared since 1907.

On the bluffs between South Omaha and Bellevue are several depressions, some of them very deep and others relatively shallow, all but one of which appear to have been rather intensively dug. The one selected by the Survey for investigation was situated in an open meadow which has been under cultivation for about thirty years but which now is in wild hay (Plate XI, 1). Now about 65 feet in diameter and 30 inches in depth, its external appearance has, probably, been considerably altered by prolonged cultivation and at one time it may have more nearly approximated the condition of the pits in the timber, which are considerably deeper and smaller. External evidences of previous digging are absent, probably as a result of plowing, for both on the basis of reports to us and of excavation, we know that some had been done. G. W. Bishop of Omaha informed us that he and Dr. Gilder had sunk a trench in the northeast section some years ago, and our excavation revealed other recent disturbances of the soil.

Owing largely to slumping of the walls and washing in of materials from the margins of the pit, the fill near

28. Gilder, 1909, pp. 65-67.

the walls was relatively clean and there was a deeper accumulation of humus in the center of the depression. The ground plan of the house as determined by excavation appears in figure 6. Around the periphery of a pit 40 feet square and 30 inches deep from the present surface, upright posts with an average diameter of about 8 inches were set into the floor to an average depth of 14 inches. These functioned both as wall and roof supports. Between the center and each corner of the pit was a large post constituting an inner roof support. One of these (that in the northeast corner) was apparent above the floor as a short section of completely charred

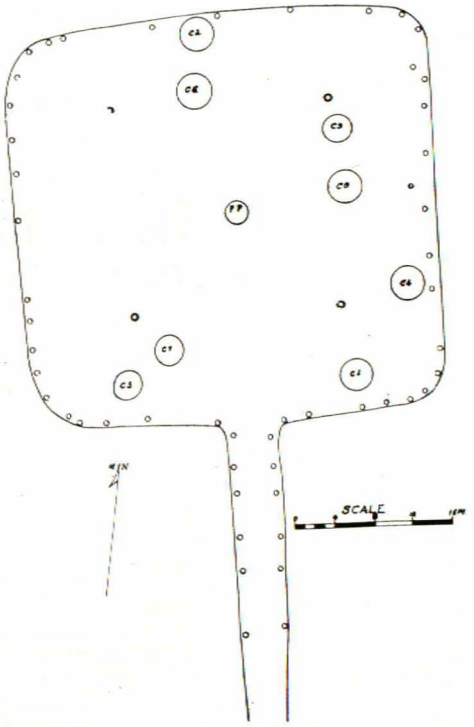

FIGURE 6. Ground plan of House 1, Fontenelle Forest Site. O, post moulds; double circles, center post moulds; C1-C8, cache-pits; F. P., fireplace; ....., edge of house pit.

wood. Otherwise, however, the evidence in the house of any extensive burning was absent. The walls and floor in general showed few effects of fire, burned clay fragments in the fill were rare, and charcoal in the post moulds was limited. The fireplace, situated in the center of the lodge, was a shallow circular depression 30 inches in diameter and 4 inches deep and filled with ashes. From it the floor, which at the time of excavation showed no evidence of any special preparation, sloped slightly up to the four walls. The entrance passage, lined like the general pit walls by post moulds, extended to the south. Its floor sloped very gradually to a height of 14 inches above the house floor at a distance of 28 feet from the south house wall, at which point there was a step-up of 8 inches and a more abrupt slope toward the surface.

Beneath the lodge floor in the north, east and south sides of the house were eight usually cistern-shaped storage pits, which varied, with a single exception, from 45 to 72 inches in depth and from 39 to 51 inches in diameter. From the top they either expanded uniformly to a flat floor or bulged to a depth of 10 to 15 inches above the floor and then contracted to a concave bottom. In no case were the walls or floor burned nor did they exhibit any other evidence of special preparation. The fill, usually composed of a light-colored loess with charcoal and ashes admixed, occasionally included burned earth which had obviously been burned prior to its deposition. Cache-pits 2 and 6 contained several lenses of pure wood ashes, and all the pits contained, in addition to artifacts of pottery, stone, and bone, quantities of rough broken stones showing no evidence of fire or working.

Pottery fragments were recovered in remarkable abundance in this excavation, totalling 4750. Of this number only 249 are rim sherds, while body sherds number 4501. The one complete specimen is a miniature pot. Two others only are restorable, but several large frag-

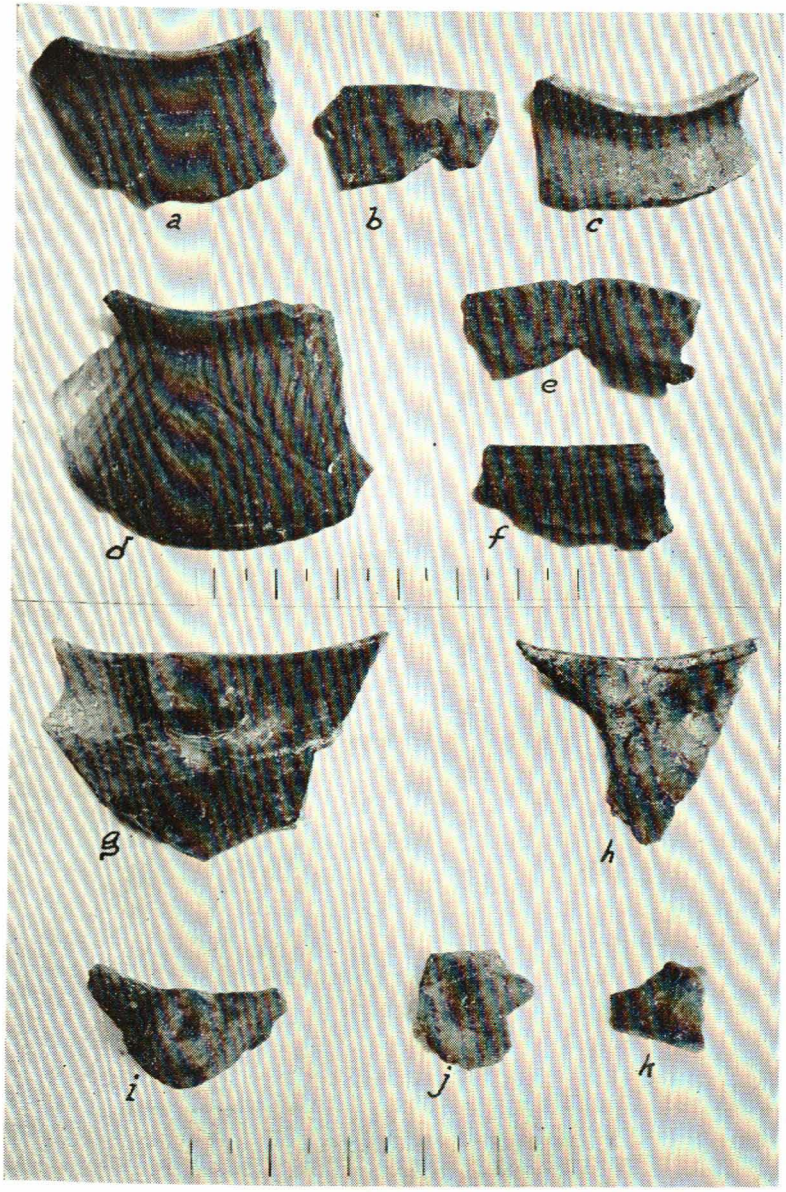

PLATE XIII

Rim sherds and handles, House 1, Fontenelle Forest Site.

ments are partially restorable vessels and are indicative of the dominant form, which is globular with a constricted neck and flaring rim. The rim is predominantly simple and direct, terminating in a rounded lip; 37 specimens, however, are characterized by a pronounced collar. Loop handles and lugs, present only on the direct rims, are numerous, 16 of the former and 20 of the latter occurring in our collection. The loop handles, all but two of which are attached at the lip, vary from straplike to elliptical in cross section. Of the two which depart from a simple loop form, one is bifurcated to create two knobs at its midpoint (Plate XIII, j), while the other is surmounted adjacent to the lip of the vessel by two earlike projections (Plate XIII, k). This latter handle is almost certainly an attempt to represent the head of an animal form of some sort. Lugs are somewhat variable in form. Thirteen are vertically perforated, and of this number all but one somewhat resemble loop handles horizontally placed. The exception has a flat cross-section. The remaining unperforated lugs are projections of slightly varying forms from the lip or the rim exterior.

Decoration on the direct rims is confined to notched effects on the rim exterior immediately adjacent to the lip, achieved by pinching with the finger or, rarely, by impressing with some cylindrical object or by punctations made with the blunt end of a tool. Ninety-four of the 246 direct rims bear such decoration. On the collared rims, also, decoration is in general restricted to a single technique. In every instance the lower margin of the collar has been treated in the same manner as the direct rims. Five rims have in addition, however, three or four parallel incised lines encircling the surface of the collar (Plate XIII, f). These sherds are identical in form and decoration to those which are considered diagnostic of Upper Republican aspect ceramic patterns.[29] Collared rims are frequently reported from Nebraska aspect

29. Wedel, 1935, pp. 187-199, and Champe, 1936.

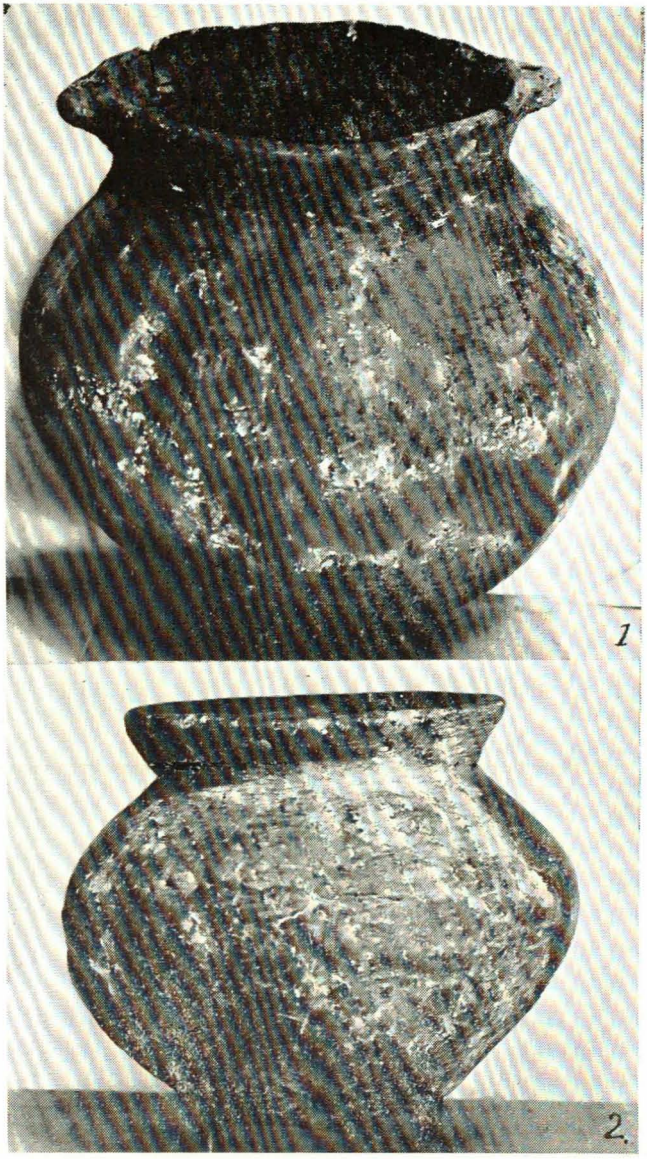

PLATE XII

1. Restored pot, House 1, Fontenelle Forest Site. Height, 8 inches; greatest diameter, 8¼ inches.
2. Restored pot, House 1, Fontenelle Forest Site. Height, 4 inches; greatest diameter, 4¾ inches.

sites,[30] and, although apparently rare, this particular variant is evidently not peculiar to this house.[31] Body decoration occurs on less than a dozen sherds, and what little there is closely resembles that previously described from the Cornish Site. Here, however, it is confined entirely to vessels with a direct unmodified rim.

The paste, usually rather flaky, is tempered almost exclusively with sand and crushed stone in rather widely varying quantities. Shell tempering was not unknown, it is true, but it occurs in less than one per cent of the sherds. Surfaces are predominantly either gray or grayish-brown and occasionally red. The interior surface of a few sherds from small vessels is a brilliant red, probably the result of applying a hematite wash before firing, for in no case was any of the color removable at the time of recovery. Evidence of the use of a wrapped paddle is present on approximately 50 per cent of the sherds, most of which have subsequently been rather well smoothed with an implement of some sort. While in many cases the impressions of twisted cords are clearly discernible, a few sherds were observed in which the marks appear to have been made by the application of some other material, possibly grass. Sterns reports that most of the Nebraska culture pottery observed by him bore the marks of a grass-wound paddle; and, on the other hand, Strong found that, where smoothing had not destroyed the evidence, a cord-wrapped paddle had been used.[32] The evidence here suggests that both materials were employed.

Several pieces of unfired clay, sometimes containing tempering material, no doubt represent the potter's raw materials, as do also a number of fragments of granite which are disintegrated to such an extent that they crum-

30. Hill and Cooper, 1937, and Bell and Gilmore, 1936.

31. Gilder, 1911, p. 251, illustrates a large sherd indistinguishable from one found by us in Cache-pit 6 of this excavation.

32. Strong, 1935, p. 252.

ble readily between the fingers. Stone of this sort was without question pounded up and included with the clay from which the pottery was fabricated.

With the exception of pipes, to be discussed later, the only artifact of pottery other than containers is a small flat ovate object with a notch cut in each edge near the wide end. It is 2⅝ inches long, 1½ inches in greatest width, and ⅝ inches thick. Its function is quite uncertain, although it might serve well as a net sinker.

Chipped flint artifacts are rather numerous but comprise very few forms. As is usually true in sites of this nature, projectile points and end scrapers far outnumber all other chipped implements combined. In our collection from this house there are 26 projectile points, 2 of which are so broken that their form is uncertain. Of the remaining 24 points, all of which are triangular, 13 are unnotched and 11 are notched. Four of the latter are straight-based and have a single pair of side notches, while 9 have two pairs of side notches and have straight, concave, or notched bases. The range in size is considerable, the lengths varying from ¾ to 2¼ inches, which variations correlate but slightly with the form of the point. Unnotched points are among the smallest, but the larger specimens of this type are not approached in size by the larger notched points. End scrapers, numbering 48 complete and broken specimens, exhibit a large range of variation in size and shape, from short and broad to long and narrow forms.

The chipping on three artifacts indicates that the points were intended for use as punches, drills, or gravers. Two of them have long, uniformly expanding shafts, while the other is a small beak-like point on one edge of a flake. Six coarsely flaked objects are celt-shaped, but are relatively small. They vary in length from 2¾ to 4 inches. Aside from 3 roughly lunate forms, knives and scrapers do not fall into definite classes. Their shapes appear to have been dictated solely by the shape of the flakes from which they were made. All but

a very few of these have been unmodified except for the retouching of one or more edges.

Ground stone artifacts also fall into a small number of classes, which consist mainly of utilitarian forms. In our collection celts are present as two complete and two fragmentary specimens. The two fragments are from large heavy tools, while the others might be termed miniatures. All elliptical in cross- section, they vary in outline, the two large ones being rectanguloid and the smaller tapering from a broad blade to a pointed or rounded butt. The smallest of these celts, 2⅜ inches in length and 1½ inches in greatest width, has been roughened near the butt apparently after being polished over all (Plate XIV, 1 a). This treatment, which has been frequently noted, probably was intended to solve problems attendant upon affixing the blade to a shaft.[33] The remaining celts in our collection are polished either over the entire surface or near the blade only.

Artifacts of Dakota sandstone include a single complete boat-shaped shaft smoother, 12 fragments with grooves of varying forms created by sharpening pointed objects, and 10 fragments with relatively flat grinding surfaces. Of 15 scoria fragments found, all but one have grooves or flattened surfaces pointing to functions similar to those of the sandstone abraders.

With the exception of a pipe, several hematite fragments bearing tool marks apparently incidental to the removal of material for paint, and a fragment of gypsum, roughly barrel-shaped and with the beginning of a perforation in one end, all the remaining stone objects are but slightly modified waterworn pebbles. Most of these exhibit evidences of use as pecking stones, and in addition a few have flattened surfaces as if they had been used for grinding or polishing. One such stone is pitted on each of two opposite flat surfaces.

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33. Cf. Barrett, 1933, p. 276.
Cooper, 1936, p. 48.

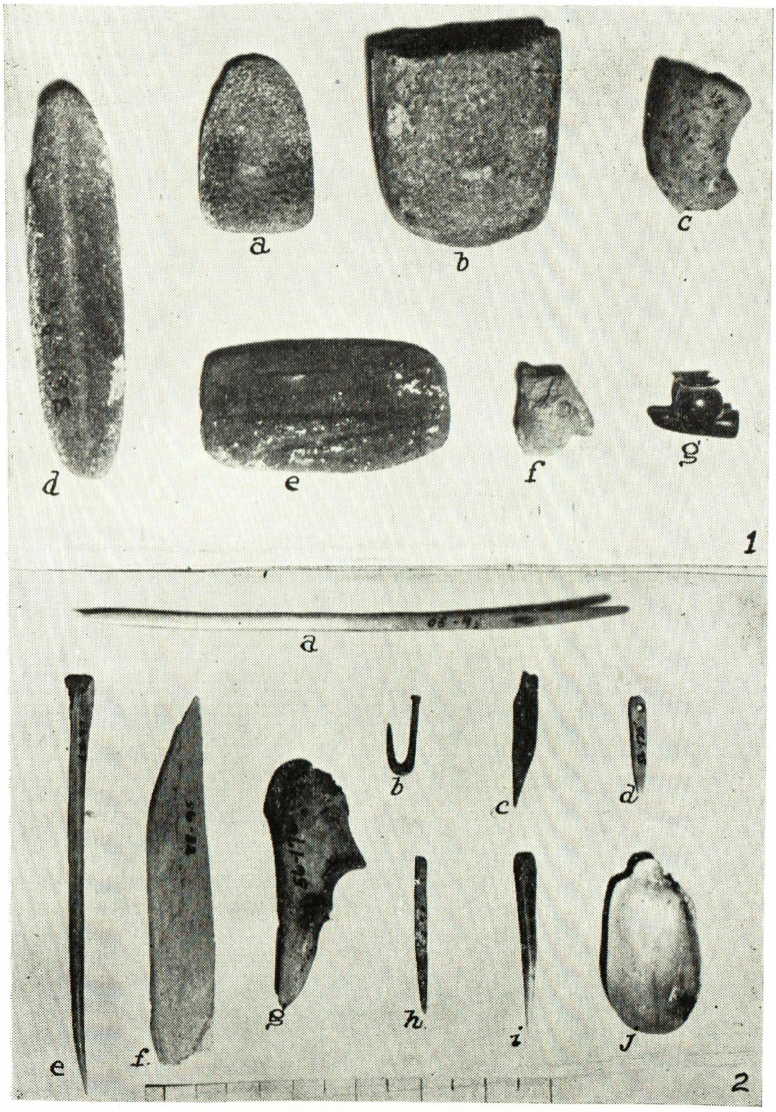

PLATE XIV

1 Stone and pottery artifacts, House 1, Fontenelle Forest Site. a-b, ground celts; d-e, sandstone abraders; c, f, pottery pipes; g, catlinite pipe.

2. Bone and shell artifacts, House 1, Fontenelle Forest Site. a, perforated needle; b, fishhook; c, e, h, i, awls; d, perforated pendant or needle; f, scapula knife; g, ulna perforator or graver; j, shell spoon.

The majority of the 16 bone awls are well-worked from long bone sections to give them sharp points and round or rectangular cross-sections. The butt in this type of awl is usually composed of part of the articular surface of the bone. Variation in length is from 2½ to 6½ inches. A few awls, on the other hand, are made by working down the point (and sometimes, to some degree, the edges) of a splinter of bone, and a single canine ulna with its shaft worked to a blunt point may be considered a variant of this same class of implements (Plate XIV, 2, g). A highly-polished pointed object, 2½ inches in length and with its round cross-section 3/16 inch in diameter, bears 4 transverse notches near the smoothly finished butt (Plate XIV, 2, h). These notches may have served as a substitute for an eye in sewing. The nearest approach to needles are long, narrow bone tools pointed at one end and perforated near the other, of which we have one complete and five fragmentary specimens. The former, highly polished, is 8¾ inches long and ¼ inch wide; 1½ inches from the end opposite the point is a long narrow perforation made by cutting rather than drilling. (Plate XIV, 2, a). A drilled hole, however, is present in one of the fragments. Similar objects are found in sites in northeastern Nebraska showing both Nebraska and Upper Republican aspect affiliations,[34] as well as in sites in remote parts of the country.[35]

Other artifacts of bone include only a small slender-shanked fishhook, notched for the attachment of a line, a small perforated object (Plate XIV, 2 d), probably a pendant, and several fragments of bison scapula hoes reworked as knives and scrapers. Two of the latter are perforated, probably as the result of mending broken hoes. Several bone fragments bearing the marks of flint knives represent the raw materials and the by-products of the manufacture of bone artifacts.

34. Cooper, 1936, p. 52 and Plate XX.

35. Hooton and Willoughby, 1920, pp. 58-59 and Plate VIII.

A small number of the many mussel shells recovered from the house have been worked on. On two of widely different sizes two notches have been made in one end to create a stem presumably for hafting as a spoon (Plate XIV, 2 j), and a few others have worn edges indicating their use for some purpose. One shell has been perforated (probably for suspension as part of a necklace) by grinding through near the hinge, and a fragment from an object of undeterminable shape has a series of notches along the edge. A few pieces show marks of cutting and another has been incompletely perforated.

Both pottery clay and stone were used in the manufacture of pipes. Those of pottery, all of which are fragmentary, are of two types. The first, of which we have two, is an elbow pipe with the bowl set at an obtuse angle to the stem, the whole expanding uniformly from the end of the stem to the rim of the bowl (Plate XIV, 1, c). The other, of which only a part was recovered, has a human face modelled on the front of the bowl (Plate XIV, 1, f). A prominent nose is in bold relief, the eyes are depicted by means of incised lines, and the mouth consists of an impressed line. From Cache-pit 2 came a small catlinite pipe of projecting stem elbow type, with a round-bodied bowl having a constricted neck and a flaring rim (Plate XIV, 1, g). It is 1¼ inches long and but ⅞ inch high.

In view of the large amount of material recovered from this single lodge, the bones of mammals were found in surprisingly small quantities. In this class are included extremely rare bison bones and somewhat larger numbers of deer and smaller forms. In contrast, the abundance of fish bones and mussel shells prove a considerable reliance on the river for food. Evidence as to the plant foods used is confined to a fair quantity of charred corn kernels and cobs.