
SMITHSONIAN INSTITUTION
Bureau of American Ethnology
Bulletin 176

River Basin Surveys Papers, No. 18
Fort Pierre II (39ST217), a Historic Trading Post in the
Oahe Dam Area, South Dakota
By G. HUBERT SMITH

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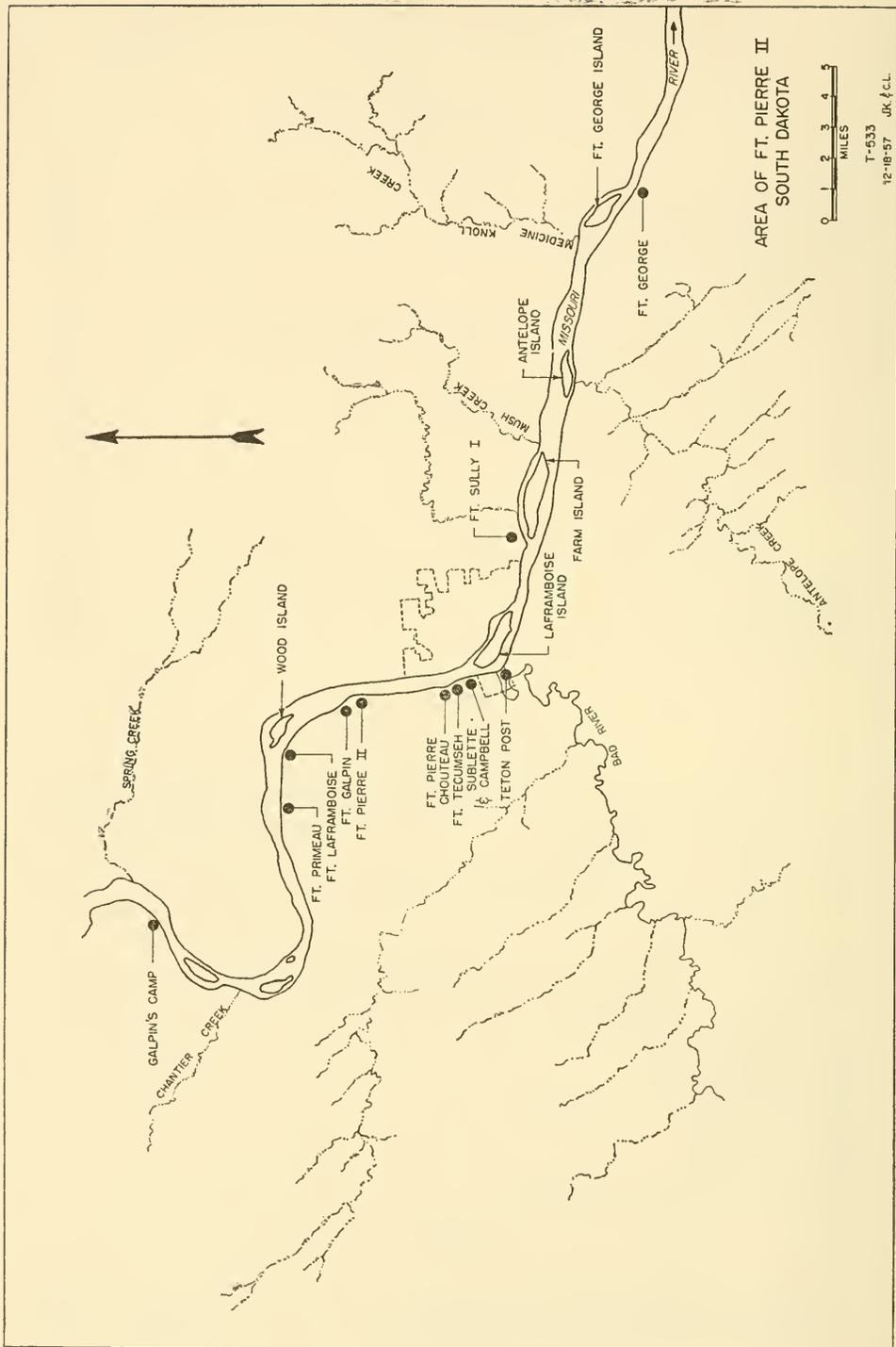
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FORT PIERRE II (39ST217)
A HISTORIC TRADING POST IN THE OAHE DAM
AREA, SOUTH DAKOTA ¹

By G. HUBERT SMITH

FOREWORD

From time to time since the establishment of the Missouri Basin Project of the River Basin Surveys, as funds and personnel were available, in addition to studies of native sites the Project has given attention to sites of White origin in areas to be flooded. Less numerous than native sites (both prehistoric and historic) in these areas, the White sites—fur-trade posts, military posts, and the like—have also been carefully studied, with actual excavation in certain instances, inasmuch as they have independent importance in the history of the region, as well as direct bearing upon its native history. This work by the Missouri Basin Project supplements and expands systematic documentary investigations of historic sites made by the National Park Service in these areas of the basin, including that of the Oahe Reservoir area.

The report that follows presents results of excavation at one such site of White origin, that of Fort Pierre II, a successor of a more famous original, Fort Pierre Chouteau, both posts having been operated by the St. Louis firm of P. Chouteau, Jr., and Company; Fort Pierre II was constructed after 1855, when the previous post was sold for military purposes. It is probable that the use of the later establishment, the site of which has now been partially excavated, was of relatively short duration, and that the post itself was of relatively minor importance even during its own period—one of rapid decline in the trade as a whole. These inferences call for a brief statement explaining why the present work was undertaken, in view of the urgent demands of numerous other sites.

The claims of historic sites known for reservoir areas in the basin cannot be allowed to overshadow those of the prehistoric and historic native sites so widely distributed throughout these sections of the Missouri valley. Furthermore, other sites of White origin are not

¹ Submitted February 1959.

lacking within the Oahe area itself, sites that still remain unexcavated, though of probably richer individual historic values than the present one. The general significance of any site—historic or prehistoric, Indian or White—scarcely affords more than clues, however, to actual historical or scientific values until careful excavations have been carried out. (This is not to deny historic values to “association sites,” at which physical data are not recoverable by ordinary archeological procedures. An example of such a site would be an Indian treaty ground, used for but a few hours or days but pivotal in the general history of an area.) In the present instance, excavation has added substantially to knowledge of a period of mid-19th-century trade, then declining, about which relatively little has hitherto been known, and provides a part of the “documentation” ordinarily missing from customary records available to historians.

As one result of systematic documentary research by the National Park Service covering historic sites in the Oahe Reservoir area, it became apparent that such sites, to be adversely affected by construction of the dam and establishment of the reservoir, were not inconsiderable in significance or numbers (Mattison, 1954). Sites of forgotten ghost towns, of better-remembered military posts, and even of an important battle were among those to be flooded beyond hope of further study at some future time.

No single category of sites was, however, as large or generally important in the earlier history of the region as that of the fur- and Indian-trade posts of the last century. Extending from at least the period of the War of 1812 down to that of permanent settlement of much of the valley in the 1880's, surviving sites of these posts—visible physical remains of which have long since disappeared—preserve irreplaceable data of earlier times, written record of which is ordinarily scanty, or even lacking—data in part recoverable only through archeology. Actual physical details of individual posts, or properly recorded specimens illustrating life at such frontier communities and the conduct of the trade, on the other hand, are seldom to be found in customary document sources or museum collections. (Inventories of physical properties and goods at such establishments, a few of which have been preserved and published, seem to be rare; such sources, conversely, sometimes preserve detailed information not to be expected from even the most thorough excavations. Cf. McDonnell, 1940.)

An example of the meagerness of contemporary document sources concerning such commercial posts of the past century will illustrate the desirability of excavations at sites of the kind. Despite more than two decades of heavy use as a departmental headquarters of the dominant trading firm of the region, little would now be known of the plan or construction of the original Fort Pierre Chouteau were it not for the records made for the War Department at the time of its purchase as

a military post—in a sense, fortuitous late records. (See plan and descriptions of this post in 1855 in DeLand, 1902, pp. 296, 348-349.) It is true that visitors such as Prince Maximilian and Edward Harris, the latter of whom accompanied John James Audubon to this place, left descriptions and a plan of the post that are of great value to the student (Mattison, 1954, pp. 24-25). Carl Bodmer, who accompanied the prince, even sketched the post from a distant point (Pope, 1954, p. 16; Rathbone, 1954, p. 220, reproduction of an aquatint from the Maximilian atlas). These sources, however, afford little more than a general impression of the establishment—literary and artistic interests, understandably enough, having centered upon the scenery and native peoples of the upper Missouri. In this fortunate instance, Federal archives thus materially aid the student in any study of design or construction of the post since archeological investigation is lacking. In such records alone, so far as is known, are specific details available concerning Fort Pierre Chouteau, such, for example, as would be required for authentic reconstruction.

These mercantile establishments of the past century—outposts of the first permanent occupation of the West—are, furthermore, less well known than other early White communities, such as military posts. As is apparent from comparison of sources compiled by the National Park Service (Mattison, 1954), military posts are, in general, well recorded in surviving archival materials, records contemporary with the design and construction of the forts. Such being the case, additions to knowledge of such military posts, possible or expectable from actual site excavation, are limited, and excavations, therefore, seem the less urgent. The fact that, by contrast, specific data for the trading posts are comparatively rare affords a justification for careful excavation, quite apart from any consideration of the importance of such sites in their own right. It may be added that, as compared with the fate of the military post on the Plains—several excellent examples of which still survive, some of them relatively little changed—the trading post, for various reasons, is less well remembered, no original posts having survived.

In view of the fact that the site here reported lies below the Oahe Dam, a word should be added explaining why it qualified as a salvage problem. The site lies near the alinement of a vast spillway, the function of which is that of a safety valve. Like several native sites of the area, this site is thus liable to almost instantaneous and total destruction, without warning, in an emergency, and clearly constituted a true salvage problem, if not one of the usual sort. In keeping with the principle hitherto applied to all large sites of the reservoir areas of the Missouri basin (historic and prehistoric alike), the excavations were designedly partial, sampling investigations. The data obtained, however, seem for the present to be fully adequate, affording as they

do new light on various aspects of the physical history of the original establishment, and for the first time providing specific data on physical remains of a post in the central Dakota region. These data should become of even greater usefulness with future work on other historic sites, such as that of Fort Pierre Chouteau itself, and the present work provides part of the orientation for such future studies.

The archeological investigations here reported concern some 8 weeks of excavations carried on during June and July 1956, under the writer's direction. Assisting him throughout this period were Elmer R. Gardner and the late Peter Kuipers, both of Platte, S. Dak., and Larry J. Giddings and Robert R. Ricketts, of Fort Pierre. The conscientious, willing help provided by these men and their interest in their work are hereby gratefully acknowledged. Harold A. Huscher, archeologist of the Project, also provided welcome assistance with the instrument survey of the site.

HISTORICAL BACKGROUND

Perhaps few geographic locations in the West exhibit a greater concentration of sites of separate and distinct (though related) historic fur- and Indian-trade establishments, or one covering a longer time-span, than that of the junction of the Bad and the Missouri Rivers, in present Stanley County, S. Dak. (map 3). Soon after the end of hostilities, after the War of 1812, and the official restriction of the trade in the West to American citizens, one Joseph Laframboise, perhaps a former employee of the famous North West Company of Montreal, is said to have traded here in 1817 (Thwaites, 1906, vol. 22, p. 315 n., cited by Mattison, 1954, p. 17).

There appears to be nothing beyond traditional evidence of Laframboise having built here at this time, but the traditions are circumstantial and have the earmarks of authenticity (DeLand, 1902, pp. 373-374). According to them, Laframboise was a mixblood (French and Ottawa) who in 1816 had come by way of Prairie du Chien, Wis., licensed to trade on the upper Minnesota River. In the following year he is said to have built a store at the mouth of the Bad River (then commonly known as the Teton), obtaining building material from dry driftwood timber. The date in question is derived from two different Dakota "winter counts" (Mallery, 1886, p. 109, cited by DeLand, 1902, pp. 373-374). This probably modest establishment is said to have been used by its builder at least until 1819, and the memory of his residence near the Bad River is preserved today in the name of Laframboise Island, near its mouth, though the precise location of the post remains in doubt.

The next establishment for trade at this point appears to have been that of a group of former Montreal merchants, the Columbia Fur Company, probably in 1822. This firm (like Laframboise, no doubt,

maintaining British ties and sympathies), of which William Laidlaw, Kenneth McKenzie, and James Kipp were prominent members, seems to have operated its post—named “Fort Tecumseh” for the Shawnee leader in the late war—until 1827, when the company was absorbed by the American Fur Company (DeLand, 1902, pp. 329–335). The precise location of the site of Fort Tecumseh is also in doubt. Some students believe that it was situated in N½ sec. 28, T. 5 N., R. 31 E. (Mattison, 1954, p. 23). DeLand (1902, p. 281, map), however, placed the site in sec. 21 of the same township and range.

Another post was also soon established nearby—that usually referred to as the Teton Post from an alternate name of the Bad River, and built in 1828 or 1829 by the St. Louis group of Pierre D. Papin, Gabriel P. and Michel S. Cerré, and Honoré Picotte, a group sometimes referred to as the “French Company,” apparently to distinguish it from the American Fur Company, and perhaps from the Columbia (cf. DeLand, 1902, p. 374; Abel, 1932, p. 202, n. 20). Once again, precise location seems impossible; the site of the Teton Post is said to have been at the mouth of the Bad, but whether on the north or south side is uncertain (DeLand, 1902, pp. 374–375).

At this late date, it is improbable that the actual sites of Laframboise’s post, of Fort Tecumseh, or of the Teton Post could be re-located. The entire area in question, adjacent to the mouth of the Bad River, has been much altered in recent years as a result of the growth of the city of Fort Pierre and through extensive changes in surface levels in and near it after the disastrous flood of 1952, and by the establishment of new street and highway grades. With the building of Fort Pierre Chouteau in 1831–32, however, the student is at last upon solid ground, the location and character of the post having been recorded in several sources contemporary with its actual use.

For the earliest trading establishments in the immediate neighborhood of the mouth of the Bad River, bottom lands had been chosen as sites, easy access to both the Bad and the Missouri having apparently weighed more heavily with the traders than other considerations. Experience with seasonal flooding, however, seems at length to have dictated that any new post be differently located. With the building of Fort Pierre Chouteau by the American Fur Company, as headquarters for its Upper Missouri Outfit, a new site was selected, approximately 3 miles upriver from the Bad and beyond the reach of its flood stages or of a conjunction of flood waters from the Missouri and the Bad, while retaining ease of access to the channel of the larger river. This site, located in NE¼SW¼ sec. 16, T. 5 N., R. 31 E., was marked in 1930 with a boulder bearing a bronze historical tablet (Mattison, 1954, pp. 24–28).

Still another early post was destined to rise in this vicinity, that of the firm of Sublette and Campbell, begun in 1833 as an opposition

post but sold the following year to the larger Chouteau firm (then successors to the American Fur Company in the West). Again the precise location is in doubt, though the site may lie in SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 31 E. (*ibid.*, p. 22). No other establishments of subsequent date are known for the immediate area.

Fort Pierre Chouteau, long headquarters of the trade in this region, and frequently visited by travelers, had by the year 1855 fulfilled its major historic role. Having survived noteworthy (though now little-known) changes in the nature of the trade itself during the preceding two decades, the old post was now the scene of a military occupation, and for a final brief period performed an essentially different function. This occupation was connected with campaigns against hostile Dakota (Sioux) Indian groups, conducted by military forces under the command of Bvt. Brig. Gen. William S. Harney, and entailed the purchase of the post for garrison and supply purposes. Thus the building of new posts by the traders for their own needs became necessary.

Unfortunately, data pertaining to these new trading establishments, following abandonment by the traders of the old post, are not readily available, and statements of historical students concerning them, frequently unsupported by conclusive evidence, are doubtful and confusing, or actually in disagreement. The following outline of the probable succession of events after 1855 is believed to be in the main correct, if inadequate in details. An attempt has here been made to proceed upon the evidence of contemporary documents or, lacking this, on the basis of reliable testimony of eyewitnesses given at later times. The attempt is not wholly successful, and search of the commercial papers of such firms as the Chouteau Company and its affiliates may provide data to fill in the scanty outlines now known, when detailed research becomes possible.

It is known from contemporary sources that the agent of the Chouteau firm, upon the sale of old Fort Pierre to the War Department in 1855, was Charles E. Galpin, frequently referred to elsewhere as "Major" (Galpin to Capt. P. T. Turnley, Fort Pierre, Nov. 1, 1855; Galpin to Turnley, Nov. 8, 1855; in U.S. War Dept., 1902, pp. 404, 412). The same sources reveal that Galpin had at this time lived in the region for 16 years, 10 of which (i.e., since 1845) he had lived "immediately at Ft. Pierre" (Galpin to Turnley, Nov. 8, 1855, *ibid.*). Galpin was to continue here for some years longer, as representative of the Chouteaus. With him, at one time, Charles Primeau seems to have represented the firm.

It is known that at some time prior to August 7, 1855, Galpin had established a camp about 4 miles above Chantier Creek, "with the party that vacated Fort Pierre on the arrival of the troops," at a site said to be good, having a considerable quantity of grass and wood, but

little timber fit for building (Lt. G. K. Warren to Maj. O. F. Winship, Fort Pierre, Aug. 7, 1855, in U.S. War Dept., 1902, p. 392). The site of Galpin's Camp near Chantier Creek is indicated on a map, made to accompany the letter, by Warren and Paul Carrey, entitled "Preliminary Sketch of a survey of the Missouri R. near Ft. Pierre for the purpose of laying out a reserve for that Post," approved by Maj. W. R. Montgomery, commandant, Fort Pierre, August 8, 1955. (This original map, as yet unpublished, is in the National Archives, Record Group 77 (126-1), and a photostatic copy is in Missouri Basin Project files.) The camp is shown as situated immediately below the mouth of a small unnamed stream next above Chantier Creek, on the west side of the Missouri, at a distance from the creek of approximately 4 miles.

Of this new site at which the traders were located, some 16 miles upriver from old Fort Pierre, the comment was also made that while the landing was not good, it was better than that at Fort Pierre, and that, in general, the location was a "more eligible one"—i.e., probably, for trade purposes. There appears to have been some doubt on the part of the traders at this time of the wisdom of reestablishing themselves in the region. Warren comments "that the trade with the Sioux in this vicinity is ruined forever, and that it will not be profitable to incur the expense of establishing a trading post"—i.e., to replace Fort Pierre Chouteau (*ibid.*, p. 393). Galpin himself revealed something of the problem in writing that "Fort Pierre is a barren and exhausted place" (Galpin to Turnley, Fort Pierre, Nov. 8, 1855, *op. cit.*, p. 412).

The general area of Chantier Creek, the location of the traders in the summer of 1855, despite the comment on its suitability seems to have been utilized by them as headquarters for only a short time. The area previously had been used by the traders from old Fort Pierre as a source of timber, not available in sufficient quantities in the immediate vicinity of the mouth of the Bad River, and it is possible that depletion of timber near Chantier Creek and the advantage of location near the old site combined to cause a return downriver. It is probable that the establishment near Chantier Creek was used only during the winters of 1855-56 and 1856-57.

DeLand states that Galpin in 1857 began a new post to take the place of the old, and that this establishment was situated "about two miles north of the site of old Fort Pierre" (DeLand, 1902, p. 365; his map places this site in sec. 5, T. 5 N., R. 31 E., near its northeast corner; Mattison, 1954, p. 30, is in doubt about the precise location). This statement appears to be based upon testimony of Marcel C. Rousseau, who came to the area in the fall of 1857 as bookkeeper for the Chouteau firm, and later stated that when he arrived the stockade of this post was under construction. This new post (according to DeLand, whose data were doubtless from Rousseau) was about 125 feet square, and built similar to the first Fort Pierre except for the fact that it had no

"bastions" (i.e., blockhouses). The stockade proper, on this authority, then "constituted about two-third of the entire enclosure," various buildings forming a part of the enclosure except along the front. DeLand states that the precise date of abandonment of this establishment is not clear, but that it was superseded by a "New Ft. Pierre." He also states that Galpin was in charge of the various posts of the Fort Pierre group used by the American Fur Company (i.e., the Chouteau firm) from the time of the building of this "Ft. Galpin" until the company went out of business at this point, and that as late as about 1865 he assisted in hauling timber from "old Fort Pierre" with which to construct a store on the east side of the river, near the first Fort Sully military post, adjacent to Farm Island, in present Hughes County.

DeLand further states that in 1859 a second Fort Pierre, or "New Fort Pierre," was built in this area, though some work had probably been done on it the previous year (DeLand, 1902, pp. 369-370). This establishment, he states, was situated $1\frac{7}{8}$ miles above (north of) the site of old Fort Pierre, and "some twenty rods or so south of the southern end of an island at that point in the Missouri River." This statement probably refers to a timbered flat, now joined to the mainland, below Wood Island, and lying largely in sections 32 and 33, T. 5 N., R. 6 E. (Cf. Corps of Engineers map, 1947, sheet 68. The original General Land Office plat of the township reveals that by 1890 this flat had already been joined to the mainland. Cf. G.L.O. plat of T. 5 N., R. 6 E., Black Hills Meridian, in South Dakota Department of School and Public Lands.)

DeLand was unable to state the source of timber used in building this "New Fort Pierre," but thought that there was little reason to doubt that before it was completed some of its materials had come from the old post, i.e., that abandoned by the traders in 1855. This is confirmed by a brief entry in Reynolds' journal for September 10, 1860, made while he was en route downriver to Fort Randall, an entry that gives a final glimpse of the famous old trading post, Fort Pierre Chouteau: "As we passed old Fort Pierre I noticed that but little was left of the structure, the remains consisting of the shell of one row of houses, and the demolition of this was in progress, the material being used in the new fort [i.e., Fort Pierre II]" (Reynolds, 1868, p. 121).

Joseph Wandel, who about this time was employed by the Chouteau firm (or by someone connected with it), is quoted by DeLand concerning this "New Fort Pierre." From this source it is probable that after the abandonment by the War Department of the original Fort Pierre, about 1857, building materials were moved upriver from it to the new site adjacent to "Seven-Mile Timber," and just opposite the lower end of the timber, about 300 yards from the river. (This loca-

tion may be the same as the island referred to above, lying in sections 32 and 33.) "We had to cut the brush away," Wandel is quoted as saying, "because the Indians would lay there and kill people. They did that several times, the Rees [Arikara] and Gros Ventres [Hidatsa]." Wandel added that the "second Fort Pierre" stood until the "steamboat people" took the houses, i.e., for fuel; "Nobody knows how it was burned up." From his account, quoted verbatim by DeLand (1902, pp. 369-370) it is clear that persons other than steamboat-fuel suppliers made use of the materials from the second post; Wandel refers to freighters of army supplies as also taking what they needed.

Basil Claymore (or Clement), another informant, also testified concerning Fort Pierre II—situated "at the foot of the island." Claymore stated positively that Galpin was in charge of both old Fort Pierre and the new post, remaining in charge until the company quit business in the area (i.e., about 1865), though he also added that he (Claymore) had served under two "bosses"—Galpin and Primeau. Charles Primeau appears to have been in charge of "New Fort Pierre" in June 1862 (perhaps during a temporary absence of Galpin), at the time of the murder of Bear's Rib, an important Dakota chief favorable to the Whites, by a group of hostiles—an event referred to in several sources (Primeau, "agent in Charge of Ft. Pierre," June 20, 1862, and Samuel N. Latta, Yancton, D. T., Aug. 27, 1862, summarized by W. G. Robinson, 1954, vol. 27, pp. 298-299, 305-306; testimony, of Wandel and Claymore in DeLand, 1902, pp. 366-368).

The matter of the precise location of Fort Pierre II, more fully dealt with in the following section, is of importance in view of the fact that, as has been seen, there were several separate but roughly contemporaneous posts in the vicinity, at least two of them in the immediate neighborhood (Fort Galpin and Fort Pierre II). Brief mention will here be made of two further establishments, of somewhat later date on the basis of available evidence. (Several clearly erroneous statements about these various posts appear in the general article by Wilson, 1902; DeLand, 1902, has corrected these errors.)

DeLand's data record the former existence of a Fort Laframboise (i.e., the second of that name, not to be confused with that of 1817 at the mouth of the Bad River), which he locates in sec. 25, T. 6 N., R. 31 E. (DeLand, 1902, pp. 365-366 and map; Mattison, 1954, pp. 31-32, places the site in sec. 30, T. 6 N., R. 30 E.). This post is said to have been established by the firm of La Barge, Harkness, and Company in 1862 and to have been operated, for a short time only, by Frank Laframboise, a descendant of Joseph, previously mentioned. The location given would place the site in the immediate vicinity of the Oahe Dam, but it has been impossible to verify the statement. In all probability, any remains at this point were obliterated during the

construction of the dam, beginning in 1950, prior to systematic search for historic sites in the area in question.

One other trading post mentioned is Fort Primeau, which is said to have been built and occupied by Primeau early in the 1860's, and probably before 1862 (DeLand, 1902, p. 378; cf. also his map, opp. p. 281). This establishment is said to have been situated in sec. 26, T. 6 N., R. 30 E., "a short distance above the Fort LaFramboise of LaBarge, Harkness & Company," and just below and opposite Peoria Bottom, on high ground and near the edge of the bluff. It has been shown above that Primeau had, in June, 1862, been in charge at Fort Pierre II, apparently during Galpin's temporary absence, and it seems improbable that he would simultaneously have had a second trading post, scarcely 5 miles distant. DeLand's suggestion concerning the date of "Fort Primeau" therefore seems doubtful. Mattison (1954, p. 32) states that this post belonged to La Barge, Harkness and Company, but no evidence is cited to support his statement that Primeau was a "partner" of that company, a firm opposing the Chouteau interests, whose agents in 1862 are known to have been Primeau and Galpin. It is, finally, quite possible that in identifying a "Fort Primeau" as in existence in 1862 (a post separate from Fort Pierre II) DeLand (who is followed by Mattison, 1954, p. 32) may have been in error, inasmuch as the terrain in sec. 26 is quite unsuitable for the location of a post. No intensive search has, however, been made of the terrain in this section, so far as is known, though it is probable that large-scale cutting, by the river itself against the bluffs of the south side of the valley at this point, may long since have removed any physical traces of "Fort Primeau."

The present study is particularly concerned with the physical history of the establishment known as Fort Pierre II, evidence for which is preserved in a few documentary sources, to which new data can now be added from excavations of the site of the post. No complete review of the general history of the fur- and Indian-trade on the upper Missouri can here be attempted, desirable as such a review would be for proper understanding of the significance of this particular post. That topic is much too large and complicated to undertake here, and adequate sources for such a review are, in any event, not yet available in print. The history of Pierre Chouteau, Jr., and Company—otherwise the Upper Missouri Outfit of the American Fur Company—itself remains to be written, and only portions of the general commercial history of the upper Missouri have thus far been published. The historic role of Fort Pierre Chouteau and other trading centers in its immediate vicinity, including Fort Pierre II, merits more attention than it has yet received, and the topic has apparently been seriously attempted only once (Wilson, 1902). It is possible, however, to gather certain facts about historic events in this area, which provide some

of the background for understanding of the physical history of the later post.

It has been noted above that until its sale in 1855 Fort Pierre Chouteau had for a number of years served the Chouteau firm as departmental headquarters for their Indian trade over a large region. It is known that from this base of operations, under the general administration of a resident superintendent (ordinarily called the *bourgeois*, or "boss") such as William Laidlaw, Honoré Picotte, and Alexander Culbertson, the firm drew the proceeds of a vast reservoir of furs and hides, from which point they were transshipped to St. Louis, and to which large shipments of commodities of all kinds were dispatched by steamboat, to be distributed among many different native groups. Thus, in the year 1851, from Fort Pierre, Picotte supervised the trade at Fort Lookout and Fort Vermillion, downriver, and Fort Clark and Fort Berthold, upriver, besides many lesser stations (Kurz, 1937, p. 235).

The entry of the steamboat is a major historic factor in any study of the trade of the 19th century on the upper Missouri. First successfully adapted to the upper river with the building of the famous *Yellowstone*, which in 1831 reached Fort Tecumseh, and the following year Fort Union, near the mouth of the Yellowstone River, the steamboats permitted bulk shipments far beyond the scope or speed of previous watercraft such as rafts and keelboats, and led the way to a truly modern commerce. By 1859, when Fort Benton was reached, steamboat navigation had been extended to the very foothills of the Rockies. By that period, furthermore, the Chouteau interests dominated the trade over a vast region—far beyond the Missouri valley proper—and, in fact, constituted a monopoly, despite frequent challenge, usually unsuccessful. The scale of these operations may be judged from the fact that a single season's furs and hides from the upper Missouri sometimes reached the valuation of a half-million dollars (Thomas Forsyth to Lewis Cass, St. Louis, Oct. 24, 1831; in Forsyth, 1957, p. 206).

Detailed information on the trade, on either "imports" of furs and hides at St. Louis or "exports" of commodities for the trade from that place, are not readily available, though such data would aid materially in understanding the beginnings, development, and decline of the trade in the West during the 19th century. It is, however, apparent that by the late 1830's—about the period of entry of the steamboat as a new and different factor—there was a shift of emphasis from the smaller peltry (particularly the beaver) to the larger buffalo hides and robes.

Thus in Joseph N. Nicollet's important geographical report the statement is made that the Chouteau firm after 1839 almost entirely suspended operations in the Rockies, where previously they had em-

ployed from four to five hundred trappers and hunters, nearly a thousand horses, and from two to three thousand dollars' worth of merchandise (Nicollet, 1845, p. 65). In 1840, said Nicollet (probably on the basis of information furnished him by the Chouteau firm itself), the principal posts were withdrawn, the company "limiting itself to the purchase of buffalo robes, and other peltries of less value." Reasons advanced in his report include that of the difficulty of competing with the Hudson's Bay Company, lacking "certain privileges" refused it by the Congress; the "enormous duties" to be paid on goods imported for the trade, as well as those levied by the United Kingdom, defeated the company's operations or "rendered them too onerous." Such statements, doubtless intended to influence political action on behalf of the traders, specifically the Chouteaus, reveal something of the intricacy of the historical development of trade in the West.

With the steamboats, others besides traders also visited the region, often as guests of "the company." Travelers such as George Catlin, Prince Maximilian and Carl Bodmer, Nicollet and John C. Fremont are among those who came, particularly during the 1830's. By the 1850's, the U.S. Army also found ways to go to the upper river by steamboat, as in 1855 when Harney's troops were transported thither from St. Louis in the course of his expedition against the Sioux.

Among the travelers, at least one left some record of Fort Pierre II, which, according to custom, he calls Fort Pierre, ignoring the fact that the original Fort Pierre Chouteau had already passed into history. This was the German-born artist, Charles Wimar, who in both 1858 and 1859 came by steamboat, probably also as a guest of the Chouteaus. Wimar later prepared a plate of drawings, showing each of the more important establishments of the firm (reproduced in Chittenden and Richardson, 1905, vol. 2, frontispiece). The location of the original of this plate—drawings probably intended for lithograph engraving—is not now known, but individual sketches of some of the subjects (e.g., Fort Berthold I, in present North Dakota) have fortunately been preserved. Inasmuch as Wimar's first visit to the upper river did not take place until 1858, after the abandonment and probable disappearance of old Fort Pierre Chouteau, his sketch of that post must have been based upon some other view, perhaps that made by Bodmer in 1833, and lithographed in color in the atlas accompanying Maximilian's Travels (published in Coblenz, 1839-41). It is curious but understandable that Wimar, on his plate of drawings, should have shown a post formerly used by the company here, Fort Pierre Chouteau, rather than that then actually in use, Fort Pierre II. Nor is any finished drawing of the latter to be found among surviving drawings by Wimar.

Wimar's primary purpose on the occasion of his visits to the upper river was, of course, particularly to sketch and paint the Indians and the scenery, and his field books (still in large part unpublished, but carefully preserved at the City Art Museum of St. Louis) furnish a valuable record of the upper river including the Fort Pierre region at this period, some 25 years after the visits of Catlin and Bodmer (Rathbone, 1946, pp. 18-20; 48; 74). Leaving St. Louis in May, 1858, on the first trip upriver, he first encountered Yankton Indians above Sioux City, who had been invited aboard the boat by an Indian agent also en route upriver. Above Fort Randall, Wimar was also to see Ponca and Brulé, and more Yankton Indians. At Fort Pierre (i.e., Fort Pierre II) there were gathered several hundred Dakota, with their women and children; portraits of as many as possible of them Wimar endeavored to obtain during the very brief stay, the steamboat (*Twilight*) carrying the party farther upstream the same afternoon (July 12). It is known that Wimar had with him on this journey an ambrotype camera, but no specimens of his photographic work are now known, and his efforts may not have been successful.

In Wimar's sketchbooks are numerous excellent drawings and portrait sketches of various Indian men and women, doubtless obtained on this trip; among these is a likeness of Bear's Rib, a Dakota chief, of whom more is said hereafter, and of whom Wimar subsequently painted an oil portrait also extant. Another hasty sketch, intended to show particularly the arrangement of groups of Indians gathered near the steamboat, seems to show Fort Pierre II as well, though with little attention to detail. In 1859 Wimar returned by boat to the upper river, adding to his drawings as before.

One other visitor to the region during these years was Capt. William F. Reynolds of the Corps of Engineers, who in the summer of 1859, accompanied by the eminent geologist Ferdinand V. Hayden, Lt. Henry E. Maynadier, and others, explored the upper Missouri and Yellowstone valleys. On June 18 of that year Reynolds held a council with the Indians at Fort Pierre, at the same time issuing the annuities (annual payments of goods and money) due the Teton; returning downriver, the party was once more at the post from September 8 to 10, 1860 (Reynolds, 1868, pp. 120-121.).

By the admission to the Union of the State of Minnesota in 1858 the remainder of the former Territory of the same name (which had extended to the Missouri River itself, touching the Territory of Nebraska, established in 1854) was left without territorial government. Various delays postponed the creation of Dakota Territory until 1861, when it was formed of this unorganized remnant east of the Missouri, and a portion withdrawn from the Territory of Nebraska, lying west of the Missouri. Few settlements had, however, been

made in the area that was to become Dakota Territory, even by 1861. In 1857, townsites had been promoted at Medary, Flandreau, and Sioux Falls, but settlements at the first and second were abandoned the following year, and that at Sioux Falls had to be defended from the Indians by fortifying the tiny community. In 1859, settlements were made at Yankton, Vermillion, and Bon Homme. At the census of 1860, less than five thousand persons (Indians apart) were claimed for all of the area of Dakota Territory, which then comprised the area of both of the present States.

Data collected by the enumerators at the census of 1860 provide some further light on trade activities in the Fort Pierre area during the brief existence of Fort Pierre II. Original census schedules covering this area have not been located, but the printed abstracts of the census record the fact that 17 persons were found at "Ft. Pierre" in that year, presumably including most of those then residing near the mouth of the Bad River (U.S. Census Office, 1864, p. 552: "Territory of Dakota").²

The total of 17 persons tabulated for "Ft. Pierre" probably included all those regularly residing at Fort Pierre II (the only trade establishment then in existence in the area, so far as is known). Lacking the original schedules, however, it is impossible to determine whether persons not actually part of the personnel of that post were also included. The composition of the group of 17 is of interest: three White and seven Indian males, and one White and six Indian females. It is known that Galpin's wife was a prominent Sioux woman, a daughter of Two Lance and previously the wife of Honoré Picotte, by whom she had two daughters. By Galpin she also had two or more sons and two daughters (Holley, 1892, p. 284; Hayden, 1862, pl. 1 and p. 457 n.). It is doubtful that Mrs. Galpin was the White woman counted, but the identity of that person is not known.

Though it cannot be proved that all 17 persons counted were part of the personnel of Fort Pierre II, as has been noted, at least that number would probably have been needed to manage the post. The fact that both Whites and Indians were listed for "Ft. Pierre" is also of interest. The employment of Indian personnel was customary at such establishments; native or mixblood males frequently were employed as hunters, whose responsibility it was to provide game for

² All of the present State of South Dakota west of the Missouri River was contained in the Territory of Nebraska from 1854 to 1861. Original schedules of the census of 1860 for that Territory are preserved in the National Archives and at the Nebraska State Historical Society, Lincoln, and the latter institution has microfilm copies of the schedules at the National Archives. These schedules do not, however, include entries for the Fort Pierre area, nor for any of several river settlements counted above Fort Randall. Inasmuch as the abstracts of the census were not published until 1864, after the organization of the Territory of Dakota (including, in its original form, all of the present States of North and South Dakota), it is possible that data for the parts of the former Territory of Nebraska, including the Missouri River settlements, were then shown under the newer political subdivision, the Territory of Dakota.

the subsistence of the posts, and they also had other duties; Indian women were doubtless also employed from time to time. It is of course possible that of the 13 Indians counted here some were included who were actually no more than camp followers, who happened to reside near the post but had no direct relation with it.

By a treaty made at Washington in 1858 with the Yankton tribe, a large part of the present State of South Dakota east of the Missouri had been opened for legal settlement, with the exception of a reservation in present Charles Mix County (D. Robinson, 1904, pp. 248 ff.; W. G. Robinson, 1954, pp. 246-249, digest of treaty of April 19, 1858). This cession was, however, unpopular with the Yankton, and caused dissension among the Yanktonais and Teton, who also claimed the area. Not until much later were further White settlements made along the Missouri above Yankton, and then only after the virtual disappearance of the steamboat. Such permanent settlements in present-day North and South Dakota could not, in fact, come about until after the Indian Wars of 1862-66, and the dispersal of most of the native occupants of the region, ever farther west.

Two noteworthy events occurred in the vicinity of Fort Pierre II during its brief existence; the first was the murder, previously referred to, of a prominent Dakota leader, Bear's Rib, in the immediate vicinity in June 1862, at the hands of his own people. Events leading to this murder may be briefly summarized here.

By the early 1850's, occupation of the territory tributary to Fort Pierre had been divided between two groups of the Dakota who had dispossessed earlier native occupants of the area. These were the great Teton nation and the smaller, closely related Yankton and Yanktonais. Though no fixed boundaries marked the range of these vigorous and then powerful peoples, the Teton (particularly the Oohenonpa or Two Kettle, Miniconjou, Uncpapa, Brulé, Blackfoot, and Sans Arcs subdivisions, constituting embryonic tribes) ranged particularly to the west of the Missouri, while the Yankton and Yanktonais ranged specially to the east.

Bear's Rib first appears in history in 1855, when he was appointed "first chief" among his people by General Harney (Warren, 1856, quoted in Robinson, 1904, pp. 227-230). He was referred to as a "great warrior," and was the leader of a mixed group of Miniconjou, Sans Arcs, and Oohenonpa (Primeau, June 20, 1862, quoted by Robinson, 1954, p. 305). In the summer of 1856, an exploring party under Lieutenant Warren encountered him in the southern Black Hills, at which time he promised to endeavor to influence his people not to molest that party, which was striving to penetrate as far as Bear Butte, in the northern Hills. Bear's Rib, however, protested vigorously to Warren that if the "treaty" presents (by the arrangement of the previous year) had been intended to purchase right of

entry into the Hills, they were not wanted by the Sioux, nor did the Indians want them if they were intended to induce them not to go to war with the Crow and their other enemies. "All they asked of the white people," Warren quoted him as asserting, "was to be left to themselves and let alone . . ." (Warren, 1856, in Robinson, 1904, pp. 227-230). Subsequently, Bear's Rib, who appears to have been an able leader despite later strong disaffection among the Dakota themselves, met Captain Reynolds at Fort Pierre II, where he protested the provisions of the Yankton Treaty, and Reynolds reported the able speech of Bear's Rib in his own words (Reynolds, 1868, p. 20; also in Robinson, 1904, pp. 249-250).

By the provisions of various agreements such as the Treaty of Fort Laramie, of 1851, and the unratified "treaty" made at Fort Pierre by Harney in 1855, annuities were made to various peoples of the area centering about Fort Pierre. These annuities were paid during special visits of then nonresident agents of the Indian Office. Thus in the spring of 1862 there came to Fort Pierre between two and three thousand Sioux, from seven bands, to meet the agent, Samuel N. Latta. The Indians with one exception refused to treat with Latta at this time, however, or to accept any "presents." This exception was Bear's Rib, who, "after persuasion," accepted goods for his band though claiming that in so doing he was endangering his life and that of his followers, and who asked that no more goods be brought unless under military protection. A few days later, a party of Sioux "came in from the prairies," killed him and several of his people, and compelled the remainder to flee (Robinson, 1954, p. 288; report of W. P. Dole, 1862).

Bear's Rib had been at odds with other Dakota leaders because of his adherence to the Whites. Latta himself, in his report of the affair, mentions that the chiefs had protested that they were in the minority, that they "had been promised protection," that the amount of the annuities was so small as to promote discord rather than harmony among the Indians, and the like. Other chiefs present at the council seemed to be agreed, withholding their approval of the annuity payments and refusing future benefits. Only Bear's Rib, whom Latta refers to as an Uncpapa chief "appointed" by Harney and "a brave and good man," remained friendly to the Government, though apparently well aware of the risk to himself. Latta stated that a few days after he had delivered the annuity goods, a portion of the Sans Arcs who were opposed to intercourse with the Government appeared, and "within the gates of Ft. Pierre" killed Bear's Rib and several others (Robinson, 1954, p. 299; report of S. N. Latta, Aug. 27, 1862; Robinson identifies the post in question as Fort Laframboise, but this seems doubtful).

The facts leading to the slaying of Bear's Rib are not entirely clear, but it is probable that the activities and methods of the traders (the immediate beneficiaries of money payments under annuity provisions) played a part. It is not difficult, in any event, to understand the murder of even a prominent tribal leader, particularly one known to be favorable to the Whites, by adherents of some other leader.

Charles Primeau, agent of the Chouteau firm in charge of Fort Pierre at the time, was a witness of this murder, and a letter has been preserved, written by him to his employers and thence forwarded to the Indian Office, which supplies some further details of the incident (Robinson, 1954, pp. 305-306, appendix to report of 1862). On June 5, 1862, Primeau stated, a party of Miniconjou and San Arcs arrived at the fort "from the prairie" (i.e., a party of hostiles). No other Indians were there at the time, except some of Bear's Rib's young men (themselves on the watch for an Arikara war party), who had moved down to the Bad River the day previous. There were about one hundred lodges under Bear's Rib, comprising Miniconjou, Sans Arcs, and Oohenonpa Sioux. According to Primeau, these Indians had, when occasion arose, "protected us" (i.e., the traders) from the Indians of the prairies. For this reason, he reported, and because they were accustomed to receive presents, they were not on good terms with the other Indians. The latter announced that they had come to kill Bear's Rib and five principal men of the "friendlies." Hearing of this, Bear's Rib decided to try them, and appeared alone at the post on June 6. "He was traitorously shot down by the Sans Arcs," wrote Primeau, but before dying he killed the Indian who had shot him, while another Indian was shot by his men. Bear's Rib was quoted as having said that Harney had promised to aid him, but that the Government had not done so, that he had often been warned that he would die at the hands of his own people, that he hoped the Great Father would now protect his (Bear's Rib's) people, and that he had never desired that soldiers be sent into the area, though now he hoped they would be, in order to protect his friendly people.

Primeau added numerous other statements attributed to Bear's Rib. It is clear that Primeau was much alarmed, and the points made in the chief's statement express many of the fears of the traders as well. Fort Pierre II, said Primeau, was so situated that its employees were obliged to allow the Sioux to enter the fort, not knowing whether the Indians came with good or evil purposes. "They not only abuse and insult us but also the Government." The troops at Fort Randall, downriver, which he numbered at four hundred, were of "no earthly use" in that place, he felt; the summer and fall were the time for

troops to appear at Fort Pierre, especially since in all probability the fall or winter would produce further troubles, or the spring, with the passage of the steamboats to Fort Benton. It is worthy of note that these events at Fort Pierre, and the murder of Bear's Rib, were separated by little more than 2 months' time from the violent outbreak of the Santee Dakota on the Minnesota River, not far distant, and the fears of the traders for their own safety, even on the Missouri, were probably well founded.

In addition to the contemporary account of the murder of Bear's Rib contained in Primeau's letter, reminiscent accounts of the event have also been preserved from the recollections of three eyewitnesses—David Gallineaux, Louis La Plant, and Basil Claymore (DeLand, 1902, pp. 366-368). These circumstantial statements preserve certain other details. Joseph Wandel, an employee of the Chouteau firm, recounted (to DeLand) the event as related to him soon afterward by Gallineaux, who believed that the murder and accompanying trouble were "the worst thing that ever happened at Ft. Pierre." All the cattle of the post, he stated, were killed by the Indians at that time, and it was necessary to go to Sioux City for cattle with which to transport buffalo robes downriver.

Gallineaux described the murder in vivid detail, stating that when Bear's Rib came up to the post he was alone, mounted on a mule. Having tied the animal, he then entered Primeau's house (i.e., inside the stockade), where Primeau's wife offered him coffee and bread, which he refused. While Bear's Rib was talking (Gallineaux told Wandel), news was brought him that his mule had been shot by the hostile Indians, upon which he went out, carrying a double-barreled shotgun. Outside the stockade he saw no one, the nearest tipi being about 30 paces away. Looking at his mule, and in the middle of speaking of the fact that this was the third such "trick" that had been played upon him, he was fired upon by a man in the nearest tipi. Bear's Rib immediately shot and killed this individual, and attempted to kill another; he had actually fired twice before the bullet he himself had received (in left forearm and heart) caused him to fall. When he had fallen, the hostile Indians ran to the trading post, opened the gate, and rushed inside, seizing everything they could lay their hands upon. They then closed the gate, the fort being everywhere filled with Indians. Bear's Rib's own people, camped near the Bad River, having been notified, also went to the post, mounted on horses, only to find the gate barred. Inside, the White men (Primeau and others) were virtual prisoners.

Bear's Rib's party demanded of the hostiles admittance to the fort, but received no answer; they then appealed to Primeau, who dared not admit them, but in his turn argued with the hostiles, whom he finally induced to make retribution by payment for the killing of the chief,

a serious offense in native eyes. Before this could be arranged, the Indians outside had killed all the dogs and horses of the hostile camp. Gallineaux recounted numerous other details, adding that had it not been for the influence of Primeau upon the hostiles within the post no settlement of the affair could have been made. The situation had been very dangerous for Primeau because the friendlies, being well armed, could have "cleaned out" the hostiles within the stockade. Finally, allowing the latter a length of time to leave the post, the other Indians pursued them for 3 days' time.

La Plant and Claymore were also actual witnesses, the former having caught Bear's Rib as he fell; the chief had been struck while standing some 20 feet south of the southeast "bastion corner" of the post, where La Plant and others were preparing coffee over a campfire. The body of Bear's Rib was later buried near the post by its employees and numerous friendly Indians. The individuals who had killed the chief were identified by Claymore as Ousta (One that limps) and Tonkalla (Mouse) (DeLand, 1902, p. 368).

The killing of Bear's Rib is associated in one local tradition of doubtful validity with a large boulder located at the base of the bluffs, west of, and visible from, the site of Fort Pierre II; according to this tradition the victim was there murdered with arrows. No attempt can be made to explain the confusion over the weapon responsible for the killing, but it is possible that, rather than marking the site of the killing, the boulder actually marks the site of the burial of Bear's Rib.

Another noteworthy event in the history of Fort Pierre II was the liberation of the Lake Shetek captives and their return to safety here in late November 1862. As part of a broad campaign of bloodshed, on August 20, 2 days after the outbreak of the Santee Dakota in Minnesota, an attack was made on a small White settlement on Lake Shetek, in Murray County, Minn., one of several such advanced frontier settlements. Indiscriminate killings there left only 10 women and children, who were made captive and were taken toward the Missouri River. (The events are fully detailed, from contemporary evidence and surviving witnesses, Indian and White, by Robinson, 1904, pp. 301-313.)

Galpin, returning downriver with a party of miners from Idaho, and accompanied by his Dakota wife, came upon Indian bands with these prisoners from Lake Shetek near the mouth of Beaver Creek (in present Emmons County, N. Dak.) in November, but his party was fired upon, and only narrowly escaped. At the trading house of Charles Primeau (i.e., at Fort Pierre II) he told of his encounter with the hostile band that held the captives. A group of 10 young warriors of the Two Kettle (Teton) tribe—probably members of the "Fool Soldier" military society—was organized by Waneta (also known as Martin Charger, and reputedly the grandson of Meriwether Lewis), and obtained provisions from Primeau for the purpose of going to

their rescue. Finding the hostiles under White Lodge encamped opposite the mouth of the Grand River (present Walworth County, S. Dak.)—themselves apparently now fast running out of provisions—Waneta and his band were able, after much parley and further risks to the White prisoners, to exchange them and to effect their safe return to Fort Pierre, whence they were taken to Fort Randall and ultimately to relatives. From the recollections of 1st Sgt. A. M. English, it is known that his company (A, of the Dakota Cavalry) reached Fort Pierre shortly after the captives, under escort, had departed for Fort Randall, whither the company itself returned a few days afterward (English, 1918, pp. 261-262).

For several years, beginning with the summer of 1862, all events in the Missouri valley were oriented about a single major theme, that of the subjugation and pacification of the Sioux, and amid the swirl of events of the following years, Fort Pierre II fades into obscurity. At the outset, the famous outbreak of the Santee concerned only these more easterly relatives of the Teton, Yankton, and Yanktonais, and the Dakota of the Missouri valley proper were never involved in fully organized rebellion, as were the Santee. With the flight of remnants of hostile Santee bands into Dakota Territory after the campaigns against them of Gen. Henry H. Sibley of Minnesota, in August and September, the westerly Dakota became ever more involved in the hostilities.

Early in 1863, plans were laid for punitive expeditions against all the Sioux, and one column, largely infantry under Sibley, moved from the Minnesota Valley to the Devil's Lake region, while the other, largely cavalry under Gen. Alfred Sully (which it had been intended should converge with the first), moved somewhat belatedly to the same area. (The full details of these campaigns have been ably recounted in Folwell, 1924, vol. 2, pp. 265-301.) Sully, who was unable to proceed beyond Fort Pierre until August 21, and thereby failed to join Sibley, engaged the hostiles at White Stone Hill (in southeastern North Dakota) on September 3 and 5, Sibley having previously clashed with hostile Indians at Big Mound, Dead Buffalo Lake, and Stony Lake, in late July. With the year 1864, Sully was to assume the chief role in further pursuit of the recalcitrant Sioux, his campaign of that year culminating in the battle in the Killdeer Mountains, July 28-29, where the camps were largely those of Teton Dakota. During 1865 there were still further campaigns, ended only by a Peace Commission that met in the fall at Fort Sully, a new military establishment below Fort Pierre.

Few details seem to have been preserved during these troubled years of events at Fort Pierre II, or about its trade. James Harkness, in a diary of a journey upriver to Fort Benton, and returning to St. Louis, in 1862, refers briefly to the post in an entry made September 20

(Harkness, 1896, p. 359). Harkness was a member of the short-lived opposition firm of La Barge, Harkness and Company, whose trader in the Fort Pierre area, Frank Laframboise, had just established the new opposition post, Fort Laframboise, above Fort Pierre II (cf. p. 95). Departing downriver from his company's new establishment, Harkness mentions reaching the older post in a gale and obtaining there some meat and other things during an hour's stay, so it is clear that relations between the opposed traders were then cordial. Perhaps the ominous state of Indian affairs—it was then little more than a month after the Minnesota outbreak—drew the traders together as nothing else would have been likely to do.

Among the units combined in Sully's force of 1863 were several volunteer cavalry and infantry units. When the force collected in July in the Fort Pierre area, a temporary depot seems to have been established at Laframboise's post, to which the 41st Iowa Infantry (actually mounted) was assigned, and where some of the military supplies were deposited, the remainder aboard the steamboats that had brought the troops upriver. The 6th Iowa Cavalry is said to have camped "under the bluff below the fort" (i.e., Laframboise's post, and probably somewhere near Fort Pierre II), and the 2d Nebraska Cavalry above it, while the 7th Iowa Infantry was left "at the site of old Fort Pierre, 3 miles [sic] below" (Wilson, 1902, p. 307; probably based upon Sully's reports).

A brief reminiscent account of experiences during the Sully expeditions, based upon a diary kept at the time by Frank Myers, a private of Company B, 6th Iowa Cavalry, gives some further details of these months of the summer of 1863 (Myers, 1888, p. 6). From this source it is known that Myers' unit reached "Ft. Pierre" about June 5. While there, an Indian scout, Crazy Dog, brought in a captive white woman, Lavinia Engels, who had been taken prisoner at New Ulm the year previous—a widely reported incident. Myers refers to "Ft. Pierre" (i.e., Fort Pierre II) as "only a trading post belonging to the Northwestern Fur Co., which was at that time doing an immense business buying hides from trappers and Indians."³

Myers noted that after a brief stay at Fort Pierre, his company moved 25 miles upriver and camped, but that after 2 or 3 weeks there, the Indians had become so numerous and aggressive that his unit was compelled to return to the fort to await the arrival of ammunition, their supply having run short. On July 7, the balance of the command having arrived, Myers' company moved across the river by steamboat to meet them. Thence the command was moved to the mouth of Little Cheyenne Creek, in present Potter County, S. Dak.

³ The Northwestern Fur Co. is known to have been formally organized by Hubbell & Hawley, of St. Paul, in 1865, but it seems to have been active previously (cf. Kane, 1955, p. 325). The firm had purchased the upper Missouri posts of the Chouteau firm, including Fort Pierre II.

At the close of the campaign of 1863, Sully had returned to the Missouri—the only avenue of supply for military goods in quantity, by steamboat—and during the winter he made his base at a new post, named for him, adjacent to Farm Island, in sec. 12, T. 111 N., R. 79 W., in present Hughes County, approximately one-quarter mile east of the city limits of Pierre (DeLand, 1902, map opp. p. 281). In this new area the trade was now reestablished, Fort Pierre II, one of the last of the true Indian-trade stations of the region, apparently being abandoned at this time (*ibid.*, pp. 370–371). Wandel, whose recollections of the old post were reported by DeLand, and who assisted with the removal of 1863, stated that the “American Fur Company” (as the traders persisted in referring to the changing commercial firms) wished military protection but that this was refused by Sully unless the traders would remove to the vicinity of the military post; this was accordingly done, with the use of rafts and boats made of plank to carry coffee and sugar and “things we could lift,” but left were “thousands of dollars’ worth of things we couldn’t lift.”

Thus the known history of Fort Pierre II comes to a close. With removal to the neighborhood of Fort Sully, the traders doubtless assumed more the role of sutlers for the military, less that of Indian-traders. In 1866, the military themselves removed upriver, to establish a permanent military post, “New Fort Sully” (39SL45), in present Sully County. This post was, in the next decade, to become one of the finest on the river, and it was not abandoned until 1894, by which time the true Indian frontier had disappeared forever and the modern history of the region had begun, with permanent settlement.

DESCRIPTION OF THE SITE

Site 39ST217, the partial excavation of which is reported here, is located in lot 4, sec. 4 (fractional), T. 5 N., R. 31 E., B.H.M. This location differs from that given by Mattison (1954, p. 30) for the site of Fort Pierre II; legal data are, therefore, given below, in detail. This section (4) contains but four lots, and lies along the west bank of the Missouri River, in Stanley County, S. Dak., approximately 4 miles north of the city of Fort Pierre, the county seat (U.S. Corps of Engineers [maps of] Missouri River, Gavins Point near Yankton, S. Dak., to Stanton, N. Dak., 1947, sheet No. 68). The site in question is opposite and somewhat downstream from Snake Butte, a prominent landmark in Hughes County (pl. 23, aerial photograph by Corps of Engineers, U.S. Department of the Army).

Lot 4, referred to, is situated near the south “taking line” of segment A of the land reservation of Oahe Dam, now under construction, and was acquired by the Corps of Engineers prior to July 14, 1948, from

the previous owner, Harold Breeden, together with parcels of land in adjacent sections to the west and south (U.S. Corps of Engineers, Oahe Dam, Real Estate, [map of] segment A, July 14, 1948). During the season of 1956, lot 4 was not under agricultural lease, but was in use, together with adjacent leased parcels, by Carl and Dale Wagner, father and son, of Fort Pierre and Pierre, respectively, owners of buildings situated on the lot in question formerly owned by Harold Breeden, together with the land.

Previous title to the parcel in question (lot 4) is recorded in public records preserved in the office of the Register of Deeds, Stanley County. Original entry of lands including the present parcel was made by Alltony [sic] Brignoli on October 22, 1892, at the Receiver's Office, Pierre (Stanley Co., Reg. of Deeds, Receiver's Receipts, vol. 8, p. 8). By a warranty deed made December 22, 1892, Brignoli sold and conveyed to May R. Miller lands including this parcel (Stanley Co., Reg. of Deeds, Deed Record, vol. 6, p. 134). Subsequently, on April 26, 1893, a United States patent (Sioux Indian Lands) was issued to Brignoli for these lands (*ibid.*, vol. 6, p. 191). By a warranty deed of February 18, 1902, May Rooker Brown (formerly May R. Miller) and Harry Brown, her husband, granted, bargained, sold and conveyed lands including this parcel to Jane R. Breeden (Stanley Co., Reg. of Deeds, Warranty Deed Record, vol. 10, p. 496). Harold Breeden appears to have been the legal heir of Jane R. Breeden, but the title has not been further traced. It may be noted that Stanley County, created from former Sioux Indian Reservation lands, was first opened for legal settlement in 1890, some years after the abandonment of the trading post here discussed.

Official copies of original notes of General Land Office surveys of the former reservation, of 1890, covering the present parcel, are preserved in the South Dakota Department of School and Public Lands, at Pierre, and these contain historical data pertaining to the present site. As required by the General Land Office, field surveys (preserved in notebooks and plats of the surveyors) included, with actual instrument data for subdivision and meander lines of each unit, a general description of each. Here were recorded general comments on soils, vegetation, visible landmarks, and other topics of importance for Land Office purposes. In the general description of T. 5 N., R. 31 E., subscribed and sworn to on November 24, 1890, by Frederick W. Pettigrew and Frederick C. Flickinger, deputy surveyors, appears the following passage, of interest here:

The remains of old Ft. Pierre can plainly be seen in sec. 16. J. W. Philips house now stands in the center of the old stockade. This fort was established as a trading post in 1855 [and] was afterwards abandoned and re-established in sec. 4 near the S.W. corner. In either case a trench marks the line of the old stockade, and heaps of earth the sites of former residences. (S.D. Dept.

of School and Public Lands, Ms. Field Notes of the Survey of Township 5 North of Range 31 East, of the Black Hills Meridian, South Dakota, vol. 203, pp. 437-438, 447).

This statement, containing information obtained in 1890, records the fact that in that year the former locations of Fort Pierre Chouteau, in sec. 16, and of Fort Pierre II, in sec. 4, were well known. The statement in question is, of course, hearsay evidence, inasmuch as visible remains of both earlier trade establishments had disappeared, except for "trenches" and "heaps of earth"—evidence probably commonly understood in the area at the time, and readily obtained by the surveyors. The obvious error in the date of establishment of old Fort Pierre—1855—is an understandable one, that year having been the date of acquisition of the former trading post as a military post. This detectable error in the sworn statement of 1890, far from throwing doubt upon the reliability of the statement as a whole, indirectly reveals the dependence of the surveyors upon hearsay evidence for portions of their record—local testimony concerning historic facts. Other portions of the statement, e.g., the references to the dwelling of the well-known J. W. ("Scotty") Philip, the trenches, and the heaps of earth are, of course, eyewitness data. (It may here be noted also that, as evidence, portions of the G.L.O. record are not essentially different from the historical statements of DeLand concerning the sites in question, statements also based in part upon hearsay evidence.)

In the absence of precise location data for these trading posts contemporary with their actual use—data scarcely to be hoped for in view of the fact that adequate topographic maps were lacking for this region prior to the opening of the former Sioux Indian Reservation and the Land Office surveys of 1890—the record of that year must be accepted as demonstrating beyond reasonable doubt the original location of the two sites of particular importance here—that of Fort Pierre Chouteau, and that of Fort Pierre II. In view of the use of the area near the mouth of the Bad River during the heyday of the fur-trade and Indian-trade by various firms and individuals, sometimes simultaneously in the same immediate region, the preservation of such specific and presumably impartial and unbiased records as these is a fortunate circumstance for historical purposes.

As shown on the Corps of Engineers maps cited above, site 39ST217 is situated approximately 1,000 feet west of the present channel of the Missouri River, at an elevation above sea level of approximately 1,430 feet. This point is on the bottom land or flood plain of the river, but the site is now screened in this section of the valley from a view of the channel by trees and underbrush. Immediately west of the site, at an additional distance of approximately 1,000 feet, the first terrace of the valley (locally known as the "first bench") rises some 20 feet higher, a notable topographic feature when viewed from the lower

elevation of this site. Site 39ST16, known as the Breeden earth-lodge village, a prehistoric site investigated during the season of 1955 by the Missouri Basin Project, is located on this first terrace, somewhat to the north of west from site 39ST217, and well above flood levels. On this first terrace also is located the present access road leading to the Oahe Dam; this is a hard-surface highway connecting with U.S. Highway 14, west of Fort Pierre.

Located on the level flood plain, site 39ST217 had been under cultivation for many years when it was investigated during the season of 1956. The geologic character of the deposits at this point have been described by Crandell as "floodplain alluvium," consisting of "stream deposits of reworked glacial drift, Pierre shale detritus, and sand and gravel of nonglacial source" (Crandell, 1954). The surface of the plot in question was found to be supporting a thin cover of volunteer oats and weeds in 1956, and while not presenting clear evidence of structural features such as partially-filled stockade trenches, showed one slight depression some 20 feet in diameter (later found to be the site of a cellar), together with object materials that antedated modern agricultural use, such as fragments of common fired brick, bits of fired adobe-clay chinking, metal, glass, glazed earthenware fragments, and small glass beads (pl. 19, *a*).

It was known that river flooding, especially during the late winter and early summer seasons, had periodically affected the site in the past, and layers of silts from such sources were encountered upon excavation. At the Breeden-Wagner buildings mentioned (believed to have been the original homestead site of Brignoli) Carl Wagner pointed out accidental traces and one intentional record mark showing that in 1952 the area had been covered by flood waters to a depth of some 3 feet. The flood of that year, on the Missouri proper at this place, converging with another, on the lower Bad River, upon the city of Fort Pierre, forced its complete evacuation. Flooding at the present site was, of course, that of the Missouri proper.

Seasonal flooding of the vicinity of site 39ST217 had, without question, previously affected it on numerous occasions, but such natural events appear to have no visible effect upon the archeological remains to be described. Aggradation of the flood plain had certainly occurred, on the evidence of layers of sterile water-borne materials, but no evidence was seen in excavation of complimentary processes such as cutting into structural features. Long cultivation of the area, on the other hand, had had only relatively slight effect upon the structural remains, cultivation having penetrated to only a shallow depth—seldom exceeding 4 to 6 inches.

Reference has been made to the fact that the site is now screened from the Missouri. This timber and underbrush is, in large part, clearly of recent origin, possibly by extension of smaller areas referred

to in older documents—i.e., has become reestablished or has expanded since the period of original use of the site. It is probable that when the site was in use, land lying between it and the river would have been cleared, as a security measure, as is suggested by the statement of Wandel, cited above (p. 95), to facilitate transshipment of goods by steamboat, and as a result of heavy demands by the trading post upon local resources for fuel and construction materials.

Changes such as these, in the character of the natural resources of the immediate area following the period of the trading post, may be inferred, prior to the agricultural use of these lands, beginning about the year 1892. The needs of a trading post, in fuel and construction materials, would materially have altered the timber cover of the immediate area, whereas soils and grasses would probably have been affected to only a slight extent, only in the immediate vicinity of the post, and only accidentally, rather than systematically. In the excavation data there are, for example, only slight hints of the use of horses or cattle, or of provisions for stabling them, from which one might infer the degree of use of grazing lands in the immediate neighborhood. Such animals were, of course, essential to the operation of such a post, but there are surprisingly few traces, in specimen materials recovered, to document the fact. Cultivation of the soil, furthermore, while no doubt practiced here during the period in question, may also have been of minor importance—perhaps little beyond small kitchen gardens, of which no evidence has been found.

ARCHEOLOGICAL EVIDENCE OBTAINED

Before proceeding to an account of new data obtained in excavation at Site 39ST217, it seems well to describe the methods employed in obtaining the data. Available historical documentation, maps, and aerial photographs had been studied with care before the immediate area was visited in May 1956. Two series of aerial mosaic photographs were used—that of the former Agricultural Adjustment Administration, U.S. Department of Agriculture, of 1938, and that of the Corps of Engineers, U.S. Army, of 1946. (Parts of the first series are in the files of the Missouri Basin Project; the later series was consulted in the Oahe Area Office, C.E. The latter series of photographs was the basis for the engraved maps of the Missouri River from Gavins Point, near Yankton, S. Dak., to Stanton, N. Dak., prepared by stereophotogrammetric methods in 1947. These engraved maps are also in the files of the Missouri Basin Project.)

Of these two series of aerial photographs, the former, made during the dry cycle of the 1930's, appeared to be the more helpful for present purposes. Examination of the sheet of the series covering this site (AAA-BOK-3/56-June 2, 1938) suggested that the site of Fort

Pierre lay in the immediate vicinity of the Breeden-Wagner buildings (which include the building believed to be the Brignoli claim shanty). The evidence considered to be of archeological importance comprised a large "enclosure" bounded by straight lines, approximately rectangular, and having what appeared to be smaller rectangular outlines contiguous to the larger "enclosures," which were interpreted as sites of former blockhouses. These surface features were believed to antedate the farm buildings (also visible on the photographs, and still standing in 1956), which they appeared to enclose. It was therefore supposed that these buildings had been built on the site of the abandoned trading post.

With initial exploratory trenching it soon became apparent that this belief was erroneous, and that the true site of the post actually lay somewhat north of, and quite separate from, the farm buildings. It seems probable that these farm buildings, beginning with the claim shanty, had for some reason been purposely located near the site of the former post. No evidence, however, is visible on the aerial photograph mentioned, of the actual site determined by excavation, and this can best be explained by reference to the prolonged cultivation of the area. By contrast, the sites of many native villages of the Oahe Reservoir area have been observed on such photographs despite cultivation, but the physical characteristics of those sites are notably different, and the present experience demonstrates the fact that all sites of archeological interest may not be visible on such photographs, even those taken under ideal conditions of ground cover, if the sites have been long cultivated.

Excavations were initiated with an exploratory trench 3 feet in width and extending to the north, beginning approximately 50 feet north of a corral fence surrounding the farm buildings, in line with the west side of the corral, this side forming the front of the group, and facing the present highway. The accompanying plan of the excavated site shown in map 4, was subsequently made with alidade and plane table, distances being chained. This trench was carried to only a shallow depth (approximately 6 inches), since it produced only the scantiest cultural debris, much of which was of recent origin. When this trench had been extended northward for a distance of approximately 50 feet, structural features were first encountered in place, in the remains of a stockade trench having an alinement approximately at right angles to the exploratory trench, and containing burnt and decayed timber remains, fragments of burnt adobe clay, and other debris, the original trench averaging 2 feet in width and containing random earthfill with cultural materials.

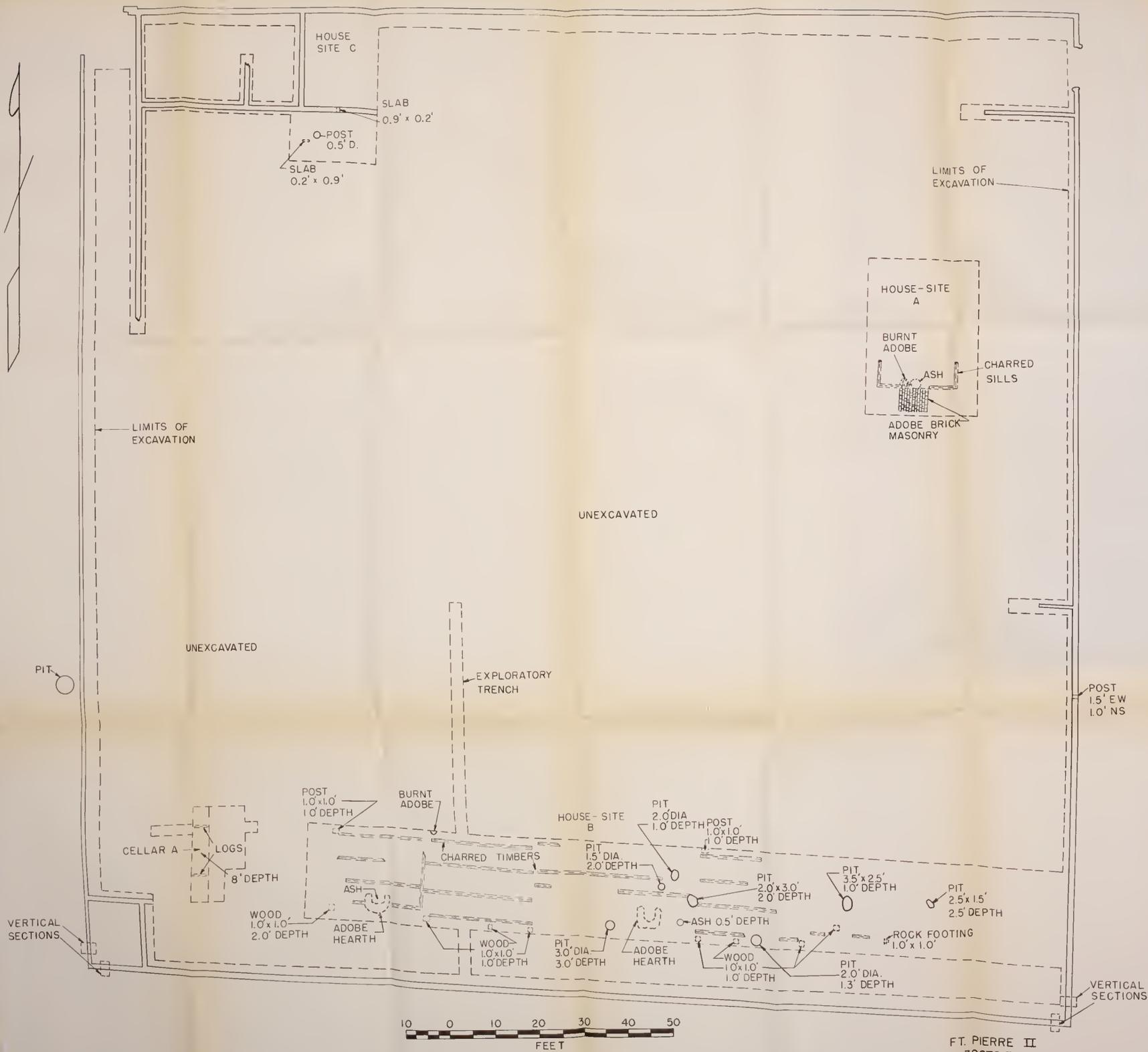
When vertical and horizontal sections of this original stockade trench had been made and examined, tests approximately 5 feet square, and separated by balks approximately 6 inches wide, were opened east

and west of the exploratory trench, without particular concern for compass orientation, but following the course of the stockade trench, sections of which had been exposed. In these test squares, further sections of the original stockade trench were made, and the tests were extended east and west until a change in the alinement of the original trench was observed, at a corner approximately 50 feet west of the exploratory trench. From this point northward, similar tests were then made, the test squares following the alinement of the west face of the original enclosure. It had now become clear that the site of the post lay north of the corral and farm buildings, and did not enclose them as had been supposed. Sections were then made of the north face of the enclosure, in a similar fashion, though no actual intersection of west and north faces was found.

Portions of the south, west, and north sides of the stockade having been located by sectioning, together with one clearly defined corner at the point of intersection of the west and south faces, a road patrol (blade) was obtained, with an experienced operator, to expose the outline of the whole enclosure in horizontal section. Work was begun with this motor equipment at a point near the presumed intersection of north and west stockade lines, though as has been noted no actual intersection of these lines had been found in hand excavations. During this time also, a portion of the northerly half of the entire enclosed area (that enclosed by the three sides known) was also bladed off, the earth being moved well to the east, to an area of slightly lower elevation, in the hope of locating further architectural remains or similar features (pl. 19, *b*). Only one such site (House-site A) was discovered in this process, and it is probable that prolonged cultivation of the entire site had destroyed other building remains elsewhere within the stockade area.

In the course of this mechanical work, the alinement of the stockade trench previously opened by hand excavation on the south, west, and north was also cleared once more by blading away the balks between preliminary test squares. When the east face of the stockade had also been exposed by blading (after the northeast and southeast angles of the original enclosure had been located by hand exploration), the original stockade trench was revealed in horizontal section in its entirety, and the true size of the former post became apparent (pl. 23).

The initial exploratory excavation trench, excavated by hand, was also continued approximately 150 feet northward from its starting point, and when extended into the interior of the enclosed area, exposed remains of the additional building (House-site B), in charred and decayed sills and random wood-fragments, fired adobe-clay chinking, and plentiful artifactual materials (pl. 22, *a*). In the course of



FT. PIERRE II
 39ST217
 Oahe Reservoir



the blading of the north half of the entire enclosed area of the stockade, one other site was also designated as that of a building (House-site C); on further investigation by hand this identification was, however, modified as described below.

In addition to the horizontal section of the complete outline of the stockade, with a part of the interior area, obtained by means of the mechanical equipment supplemented by handwork, vertical sections were also obtained on faces cut by the forward edge of the blade of the equipment (the forward edge being kept toward the interior of the enclosure). These vertical faces were of relatively shallow height, seldom exceeding $11\frac{1}{2}$ feet, but they revealed additional vertical sections of interior details of the original post such as certain offset trenches at right angles to the main stockade line, supplementing the horizontal sections.

The applicability of customary archeological field methods, with hand excavation, to the study of a site of White origin needs no discussion here, but comments may be made concerning the use of mechanical equipment such as a road patrol on such sites. In the examination of the site of a trading post, known from comparative data to have been constructed in large part of timber materials and evidencing little if any masonry to obstruct the use of such equipment, it seems desirable to obtain, early in the excavation, some notion of the full scale and plan of the whole, since such matters are of primary concern in the study of such establishments. In the present instance, the fact that overall dimensions of the whole proved to be greater than 200 feet reveals something of the intended role of the post in its period and, probably, something of historic change in the design of such establishments at this relatively late period of the Indian-trade. In this instance, the mechanical opening of large parts of the area also revealed that few architectural remains meriting detailed study survived within the enclosure, despite the relatively large size of the post. It would, of course, have been entirely feasible to obtain this information by hand methods, though many weeks of hand labor would have been required for the purpose, whereas the use of mechanical equipment occupied but a few hours, and at a more reasonable cost.

In order to use the mechanical equipment available (a blade) in a consistent, effective fashion, earth was bladed outward from the four sides of the stockade in the process of cutting horizontal sections of these lines. Since the depth reached by the inner vertical edge of the blade was appreciable, averaging $11\frac{1}{2}$ feet below the level of the present (cultivated) surface, it was necessary to move the earth some distance outward from the vertical profile left by the edge of the blade. This was a distance of 15 to 20 feet, ordinarily, the resulting berm rising very gradually to a crest, outward. This cutting was, of necessity,

deeper on the inner portion and, conversely, the spoil dirt beyond covered other deposits from view. Some data concerning the immediate exterior of the stockade were undoubtedly lost in this process. Only one uninformative shallow pit was encountered (probably no more than 1 foot in depth, originally) during this blading, along the west face, outside the stockade. Near the southeast angle of the enclosure, at a somewhat greater distance (but not shown on the accompanying plan), a modern deposit was encountered, consisting of a plank and post structure, fastened with wire nails, and disturbed by subsequent plowing, probably the remains of a corral fence of relatively recent date.

There are other practical considerations concerning the use of mechanical equipment in such investigations. It might be supposed that such extensive blading as that here accomplished would destroy much of the cultural remains sought. In the present instance, however, it was known from previous hand excavations that the soil at the surface of the site had been completely disturbed by cultivation, and that it was improbable that structural features would be found until this mantle had, by some means, been removed. There was, therefore, little objection to using such a piece, but rather a distinct advantage from the standpoint of salvaging as much information as possible in the shortest time. Elsewhere during the salvage program the use of such equipment had also been justified in the study of undisturbed sites.

Experience elsewhere with such mechanical equipment, a road patrol, in the study of a site of White origin (that of the site of the trading post of Fort Berthold I, a part of Site 32ML2, which had not been used for modern agriculture) also afforded ample original data of structural and architectural features without, it is believed, material loss of evidence (Smith and Woolworth, MS.). At that site the equipment was also used to expose the alinement of the adjacent village stockade. The use of such a mechanical device has, needless to say, certain limitations. Such a device cannot be halted immediately upon the exposure of an artifact or feature of archeological significance; it provides, ordinarily, only horizontal soil sections and it must be used, at least at the start, in the manner of a plow, the leading edge depressed sufficiently to cut into deposits. Finally, a blade cannot carry earth away, but must roll or drag it, and this may on occasion prove objectionable, if unavoidable. In general, however, the present experience corroborates that gained elsewhere by others: mechanical equipment can, and sometimes should be, used, where available, in any salvage program.

ARCHITECTURAL EVIDENCE

Like most commercial establishments of the frontier, Fort Pierre II was built in the form of a hollow square, a large timber enclosure intended to provide security for goods and personnel of the post—

security from theft, raid, and petty annoyance caused by native visitors.

Unlike many other such posts, however, this stockade had been very simple in plan, and upon excavation little evidence was encountered that it had ever been provided with blockhouses, a familiar feature of many other posts. It is possible that by the year 1859 such facilities were deemed unnecessary in this area, in view of changing relationships between trader and Indian; it is also possible that blockhouses were not provided because of lack of funds or materials during the brief period of the use of the post, or because uncertainties of the trade at the time did not favor such elaboration of a basic plan. Whatever the reason for omitting the protection of blockhouses, which ordinarily were paired and offset, to permit flanking fire along adjacent sections of a stockade, this post does not seem to have been furnished with them, from evidence surviving at ground level. No documentary evidence on the point is known; the reference cited above (p. 105) to the "southeast bastion corner" may signify no more than the southeast corner of the entire stockade, and no evidence of any special structure such as a blockhouse was found at this place upon excavation.

Within the enclosing stockade, buildings appear to have been located near the perimeter, either connected with, or close to, the line of the stockade, as was frequently the case with such establishments. Only two definite building sites were encountered (House-sites A and B), and that of a cellar (A), which lacked evidence of having been provided with a superstructure. Extensive trial blading and close examination of the whole site, moreover, failed to reveal traces of other buildings within the stockade. Along the north stockade line, and connected with it, secondary trenches were encountered, which may mark the sites of minor structures (House-site C). Little had been preserved, however, to reveal their exact nature, and they may have been no more than minor sheds and corrals. On the basis of surviving evidence, and taking account of the probability that sites of certain buildings formerly in use here had been completely obliterated by cultivation of the entire area, it nevertheless seems probable that buildings of the post had always been few in number and that the central yard or compound had always been relatively open.

On excavation, the sides of the stockade enclosure were found to describe a somewhat irregular quadrilateral. The intent of the designers and builders probably was that the enclosure should be a rectangle, but no two sides were of identical length, or any corner a true right angle. Little is known of actual steps in the construction of any of the many trading posts of the Missouri valley, from accounts made at the time and on the spot, such as would be useful for comparative purposes. From evidence accumulating at excavated sites of a few such posts, however, it seems improbable that attention was paid by

builders of the posts to laying out perfect geometric figures. It may be suspected that much of the planning and building was of the rule-of-thumb variety, and that most of the actual construction was accomplished by using the readiest, simplest means at hand.

The most notable feature of the enclosure formed by this stockade is its generous size. Approximate dimensions of the enclosure are as follows:

East side: 225 ft.
South side: 220 ft.
West side: 195 ft. (est.)
North side: 227 ft. (est.)

The latter estimates have been obtained by projection of the adjacent stockade lines to a point of intersection.

Such proportions are considerably greater than those of many trading posts of preceding years in the valley, and almost equal to those of Fort Pierre Chouteau, which is said to have measured 235 feet square (Harris, 1951, p. 83, cited by Mattison, 1954, p. 25), and Fort Union, which is said to have measured 220 by 240 feet (Audubon, 1897, vol. 2, p. 180, cited by Mattison, 1955, p. 66). The large size of Fort Pierre II suggests that when the post was built it was intended, despite the omission of blockhouses, to be a full replacement of the old post (Fort Pierre Chouteau), and not merely another secondary post.

The location of Fort Pierre II on the lowermost level of the valley, the flood plain itself, has been noted. The post was probably so located because of the fact that a reasonably large open space was available here, within a reasonable distance from the riverbank and landing facilities for steamboats. The fact that the low site would be subject to spring flooding may have caused little concern to the builders, despite previous experience, when such flooding had caused inconvenience to establishments nearer the mouth of Bad River. Convenience to the river-highway itself—a major consideration—and space surrounding, sufficiently open for reasonable security from unwelcome visitors, must have weighed most heavily in planning for the new post.

The orientation of the enclosure is of interest, in view of the fact that although compass orientation would not seem necessary, it was adhered to. No data are known proving the use of a compass in laying out the post, and it is possible that it was established by the easy expedient of setting the lines at night according to the position of the North Star. Elsewhere, posts seem to have been so oriented in order to permit dwellings to face southward (probably to take advantage of winter sunshine upon building fronts, away from prevailing winter winds), with utility buildings such as warehouses and storerooms

facing them, on the opposite side of the enclosure. In the present case, one large building site (House-site B) appears to be that of a warehouse, facing north, but data are lacking on any former buildings opposite, facing south.

Instead of facing south, the smaller building site (House-site A)—probably that of a dwelling, traces of which were found near the east line of the stockade, adjacent to the northeast angle—appears to have faced in some other direction than southward. The front alinement of this building is not evident, but it is possible that the main entrance was on the north, opposite a fireplace and chimney on the south wall. If this was the case, immediate access to the adjacent stockade entrance would have been possible, and it would have been a means of keeping control over the use of this gate.

Fort Pierre II was built of native timber, particularly cottonwood, but few data are available from excavation on whether building timbers were ordinarily hewn and fitted (as might be expected, at this period) rather than roughly fitted, full-dimension logs. Whether sawmills, at such locations as Chantier Creek, upriver, were actually in use at this period is not known. No lumber fragments clearly showing saw marks were found, however, and it is probable that hewn timber was then ordinarily used for construction, except in the stockade itself. In the stockade, logs were probably peeled, to reduce fire hazards.

Such timbers were undoubtedly obtained from groves of trees in the vicinity of the post, and from those near the river, upstream, from which logs could readily be floated down to the site. It is also possible that timber materials used were in part salvage materials from the buildings and enclosure at Fort Pierre Chouteau, which was finally abandoned in 1857, after the removal of some useful building materials by the military themselves (cf. p. 94). No clear evidence of the reuse of materials from such an earlier post was, however, seen.

In view of the fact that by the year 1859 timber resources of the region were probably badly depleted through long exploitation for both construction and fuel, by both Indians and Whites, Fort Pierre II may have appeared to be less skillfully or carefully built than previous posts such as Fort Pierre Chouteau. It is unfortunate for comparative purposes that no contemporary picture of the present post seems to have survived. It is to be hoped that evidence of this sort and, indeed, further documentation of any kind, will be found. Some further data are preserved in the Chouteau Company and family papers now in the Missouri Historical Society, but it has not yet been possible to examine these papers.

Several unpublished manuscripts in these collections appear to bear directly upon the physical history of Fort Pierre II. The following selected items, information concerning which has kindly been supplied

by Miss Barbara Kell, former reference librarian, may serve as illustrations:

(1) Inventory of "stock property" of the Upper Missouri Outfit at Fort Pierre, June 1, 1857. By this date, the military had abandoned Fort Pierre Chouteau, and the inventory presumably shows property repossessed by the Company, which had not yet been paid for by the Federal Government for the post; this property may have been moved to Fort Galpin, the temporary post referred to above (p. 93), used until the establishment of Fort Pierre II in 1859.

(2) Invoice of goods shipped to Fort Pierre by P. Chouteau, Jr., and Co., May 14, 1858. The invoice should reveal kinds of goods received at this point just prior to establishment of Fort Pierre II, for comparison with earlier and later invoices.

(3) Invoice of goods, etc., shipped to Fort Pierre [II] by P. Chouteau, Jr., and Co., May 23, 1859.

(4) Invoice of lumber, Fort Pierre [II] to P. Chouteau, Jr., and Co., July 27, 1859. Evidence of "export trade" from the post, downriver, perhaps to military posts such as Fort Randall, or to consignees at Sioux City, Iowa, and other river communities.

(5) Bill of lading and invoice of goods shipped to Galpin by P. Chouteau, Jr., and Co., Sept. 7, 1859.

(6) Invoice of merchandise furnished Fort Benton, by Fort Pierre, May 25, 1860. Evidence that Fort Pierre II continued, at least on occasion, the depot function of Fort Pierre Chouteau, supplying more distant posts.

(7) Insurance policies on merchandise shipped to Fort Pierre and other points, April 11, 1864. Evidence that even after the removal of Company interests from Fort Pierre II in 1863 the use of the name "Ft. Pierre" persisted; the record should be useful for comparison with data on shipments of previous date.

The stockade of Fort Pierre II had been formed of a single continuous row of logs or heavy timbers, closely set on end in a trench prepared to receive them, on the four sides of the enclosure, the ends of the posts having been held in place by earth, probably tamped in. No evidence was found that throws light on methods of tying timbers together above ground, or bracing them, in order to keep the posts in alinement. Various sections of the once-continuous line of posts were seen in excavation in exposed post butts in the prepared trench, and, where the post butts were lacking, the alinement of the trench was clearly marked in soil discoloration, without interruption except at two points, to be noted. These discolorations were not uniform in character. At some points, the undisturbed sandy subsoil was darker than the fill in the trench; elsewhere, the fill in the trench (sometimes containing bits of charcoal or ash) was darker than the undisturbed earth on either side (pls. 20, *b*; 21, *a*, *b*). Throughout the entire course of the stockade, as well as at sites of interior structures of the post, it was seen that fire was a major factor in destroying the original post. Whether this fire destruction was accidental or purposeful is unknown, or whether more than a single major fire was responsible.

In many sections of the original stockade trench, little or no wood remains, either decayed or charred, had been preserved. The timbers

that had originally stood in these sections had probably been removed for use as fuel after the abandonment of the post. At some other points, timber remains still in place were associated with post pits that had been refilled with earth, and it is probable that these instances illustrate repair of the stockade, and replacement of original posts, decayed or damaged.

Vertical cross sections of the original stockade trench were made at points near the southwest and southeast angles of the post, and in these sections it was observed that the depth of the trench below the original (now-disturbed) surface probably nowhere exceeded 2 feet. It seems probable, therefore, that the height of the original stockade above the ground was no more than 8 to 10 feet at most, thus requiring logs 10 to 12 feet overall.

Two openings in the stockade lines of the post were encountered upon excavation, both openings having permitted access to the interior, and both, probably, ordinarily used as gates, though excavations provided no significant architectural detail from which the nature of the gate could be determined. The opening along the east stockade line near the northeast angle of the post, appears to have been the more important of the two, and not far removed from it was the site of the dwelling (House-site A). At this opening, somewhat larger timbers had stood on either side of the opening, and the area had apparently been screened from the interior by a short line of smaller posts at right angle. If, as might be supposed, this was the site of the main gate of the post, this angle of the post would have been a logical location for a blockhouse, but no evidence was found of any such architectural elaboration here.

The second opening in the stockade lines, near the northwest angle, was of different design, being formed by long parallel sections of stockade, also lacking significant architectural detail. The difference in plan of this entry from that of the other opening suggests that its use differed from that of the other, but the actual use is obscure. Near this angle, large quantities of nails and spikes were found, with some scrap metal, which suggests that a shop of some kind had once stood nearby, the structural remains of which had been lost.

At the southwest angle of the stockade, sections of trench, intersecting with the exterior lines and identical with them in containing post butts and timber fragments, and disturbed earth, enclosed a small area of the interior (pl. 20, *b*). This 4-sided figure, approximately 12 by 14 feet, suggests a blockhouse or tower. The sides of this small enclosure consisted of vertical timbers rather than horizontal logs, however, and such construction differs from that of blockhouses at many trading establishments. Furthermore, the four sides of this enclosed area formed a continuous closed line of posts, lacking any visible interruption, or obvious entry, leading to either the interior

or exterior of the post. It is possible, of course, that evidence of such an opening had been destroyed. It is also possible that this small enclosure had originally supported a second story or platform, but if so the whole unit would have been unusual. If such a second level had once been used, it is also possible that the first level had not been furnished with any direct access, and had been a closed, dead space. Relatively few artifacts were recovered near this southwest angle of the stockade, and there is, therefore, little hint of the use of this area, as, for example, the site of a blockhouse.

Despite the lack of documentary or archeological evidence that Fort Pierre II had been provided with blockhouses, it should be repeated that evidence of such blockhouses may have been obliterated during cultivation. Elsewhere, at the site of Fort Berthold II (a part of site 32ML2, a site not disturbed by cultivation prior to excavation), little evidence of the former existence of its two blockhouses was found on excavation, though photographic and other pictorial record was available of their former existence (Smith, MS.). In that instance, the blockhouses had been built of hewn and fitted horizontal timbers, apparently set directly upon the surface of the ground without footings, but no physical evidence of them had remained in place.

It is worthy of note that for "Ft. Galpin," apparently used 1857-59, the statement was made (as noted on p. 93) that the post was similar to Fort Pierre Chouteau except that it lacked "bastions" (i.e., blockhouses). The description of "Ft. Galpin" as having been only partially stockaded suggests that the establishment may never have been completed, or blockhouses added during its short existence. Whatever the actual reasons for omitting such defensive features at the later post, their absence is a hint of important changes that were occurring in the trading posts at this period.

The site of a dwelling (House-site A) was first observed during trial blading of the north part of the interior of the present site, in the remains of an incomplete platform of unfired adobe-clay bricks, regularly laid, probably in adobe mortar (pl. 20, *a*). Associated with this structure, probably a chimney base, were a small ash pit and loose adobe bricks and fragments, which had been accidentally fired on one or more surfaces, together with a few loose kiln-fired red brick and brick fragments. This ash pit was not a true hearth pit, in which fire had been laid directly, and lacked extensive scorching such as would have resulted from such use. It appeared rather to be an ash accumulation from a chimney, associated with random adobe brick tumbled from the chimney, which had previously been accidentally and indirectly fired by the heat of a stove used with the chimney or subsequently, upon destruction of the building by fire.

The incomplete adobe-brick-paved platform lay outside the building lines, which were marked throughout a part of their extent, contigu-

ous with the platform, by charred fragments of timber sills, from which accurate measurements could not be obtained. These architectural details marked the alinement of the south elevation, and the east and west corners of a small building approximately 18 feet wide, overall, undoubtedly of timber. No further architectural detail was obtainable, the northerly portion of the structure having been completely destroyed, probably during cultivation, leaving only the scantiest scattered debris. Even charcoal bits and ash were sparse in this area. There were, however, hard-packed areas, probably remnants of the original earth floor of the building, within the area partly outlined by the sills, and some of these packed areas were slightly scorched and reddened.

The building that had stood here had been destroyed by fire, and the very sills of the building had been burnt. That the adobe-brick platform, immediately beyond the wall, was not accidentally fired in the process may be explained by supposing that it was protected from the fire by other material from a collapsed chimney, subsequently removed by cultivation. The few kiln-fired red brick found, undoubtedly brought to the site by steamboat, had probably been used in this chimney as well. The adobe bricks of the platform were not sufficiently well preserved to permit isolating complete individual specimens. The bricks measured 5 to 6 inches in width, and approximately 1 foot in length, and appeared to be approximately 3 to 4 inches in thickness. They showed no evidence of having been made with a binder such as straw, and had probably been specially made for use in the chimney base.

The building in question (House-site A) has been referred to as a dwelling. This conclusion seems inescapable in view of the small size of the original, the fact that it had been provided with a rather substantial chimney (apparently used with a stove), and that it had had only earth floors. In the disturbed fill covering this building site, some few further clues to original construction were obtained upon excavation, including three fragments of lime plaster (perhaps from upper portions of the chimney), a quantity of small fragments of window glass (some of which were scorched or melted, probably during the burning of the building), numerous nails, and some minor building hardware.

Other specimens obtained here illustrate original furnishings and reveal the essentially domestic character of the building. Among these are the blade of a spade, a fragment of cast-iron stove, numerous sherds and broken objects of stoneware and white and colored earthenware, a table fork with wooden handle (fragmentary), fragments of glass tumblers, a group of animal and bird bones (probably food refuse), and small personal possessions that support the identification of the building as a dwelling. Among the latter is a group

of seven identical large hand-decorated glass beads, probably part of an ornamental strand once the property of a woman of the household. These beads were found scattered over the floor area of the dwelling, but had obviously once been used together.

A more imposing, though also badly denuded, building site (House-site B) was encountered along the south side of the stockade, probably the site of a warehouse or trading building rather than primarily a dwelling (pl. 22, *a*). This site was first observed during initial excavations at a point at which the building site was crossed by the north-south exploratory trench. The excavation of this building site was accomplished entirely by handwork.

The most noteworthy details of this building site were parallel rows of charred horizontal timbers and timber fragments, the remains of sills and joists of the original, though the spacing was not entirely uniform. Although in general badly preserved, these timbers appeared to have been hewn, and probably originally measured 4 by 4 and 6 by 6 inches. Associated with the horizontal timbers were numerous bits of accidentally fired adobe-clay chinking, and remains of burnt and unburnt adobe bricks. Fragmentary post butts and filled postholes were also found, containing remains of posts that had been set in small pits, ordinarily 1 foot square and 1 foot deep, and probably dug with spades. The blade of one such spade, too badly corroded to preserve, was found on the original ground level near the west end of this building site. One minor architectural detail encountered was a small group of stones, which had served as a footing for a sill or joist, also approximately 1 foot square. Despite the number of sills and posts used in the building, no divisions of the whole such as room areas could be defined. Nor was there evidence to show whether the timberwork was end-notched or included vertical posts (as is suggested by the presence of the post butts) into which horizontal hewn logs were tenoned. Elsewhere, the latter distinctive style of logwork was employed in the construction of posts of this period (e.g., Fort Berthold II, a part of site 32ML2). The surviving post butts here may actually be nothing more than separate footings for end-notched horizontal timbers, rather than true corner posts.

Another noteworthy architectural detail of this building was the provision of small fireplaces, the remains of two of which were found (pl. 22, *b*). These were made of puddled adobe clay, probably reinforced with twigs and sticks, and provided with small hearth areas, in which ash and charcoal bits were found. No clue to the original design of upper parts of fireplaces or chimneys was seen, but these were probably of the simplest character. No suggestion was found of the use of adobe bricks in direct association with these fireplaces.

The remnants of floor sills and joists found here reveal that this building had originally been furnished with a flooring of planks or puncheons, but no remnants of such flooring were found, and it may have been destroyed by the fire that destroyed the building, or subsequently removed for use as fuel. In addition to evidence of the fact that the building had been floored, several small subfloor pits were found on excavation. These pits may have been in use prior to the construction of the flooring (which may itself have been introduced after the completion of the exterior), and the pits may not have been accessible after the flooring was provided. These small shallow pits, which varied in diameter from $1\frac{1}{2}$ to $3\frac{1}{2}$ feet, and in depth from 1 to 3 feet, were uninformative, some being void of specimen material, others containing only random bits of construction or household debris. They did not appear to have been made specifically for storage or refuse pits, and their use is obscure.

The excavation of this building site produced larger quantities of small specimens, derived from both construction and use of the structure, than were obtained from the dwelling site (House-site A). Quantities of nails were found, of various sizes (though lacking large spikes), fragments of window glass, some scorched and melted and some undamaged, two plaster fragments, and numerous bits of adobe-clay chinking, originally used between wall timbers), some of which had been partially fused by the action of fire. Relatively few of the objects obtained were derived from ordinary household debris, though a quantity of sherds of glazed earthenware was found, with fragments of various glass bottles (one of them the seal of a wine bottle) and a quantity of food-refuse bones. Personal possessions and trade goods were present in some numbers, including fragments of firearms, gun flints, cartridge cases, a jackknife, clay-pipe fragments, small glass beads, and garment buttons of various kinds (including a few military buttons, which may be derived from the use of the site by military personnel, or from the use of surplus military garments by Indians). Unusual objects found include the foot of a china doll and two U.S. silver coins, a quarter of a dollar and a dime, both bearing the mint date 1857, such as would have been in general circulation during the years in which Fort Pierre II was used.

Objects of special interest from this site are some probably derived from visits to the building of Indian customers, during trading sessions. They include a group of cut antler-tine objects (similar to those used by many native peoples for pressure-flaking of stone), several incomplete catlinite tobacco pipes, and small rounded gaming pieces made of glazed earthenware. A pear-shaped catlinite object and a catlinite ball are perhaps souvenir "pocket pieces" of White traders and visitors.

Although undue weight should not be put upon evidence of the composition of the specimens from this building site, these specimens do not, in general, suggest actual occupation of the building as a dwelling as much as its use in the trade, probably as a combination storage and sales building. It is scarcely surprising that larger objects such as would have been needed in such a trade building were missing upon excavation, since valuable tools and furnishings of that nature would hardly have been abandoned with the discontinuance of trading here. The cultivation of the site after abandonment also helps to explain the removal of larger objects, such as might obstruct agricultural operations.

The location within the stockade of this building, and its size, character, and associated specimens, also suggest that the building was not primarily a dwelling. It had, beyond question, originally been divided into rooms (though no clear evidence of their precise dimensions was found), and some of these may from time to time have been used for living purposes. If, as in 1860 appears to have been the case, as many as 17 persons sometimes resided at this post, some of these may occasionally have dwelt here. The lack of evidence of any other building sufficiently large enough to accommodate stored goods and provide for trading operations, however, is noteworthy.

Little information was obtained from the area excavated adjacent to the northwest angle of the stockade, which was at first believed to be the site of a building (House-site C), data such as might have established the use of the immediate area. Structural data at this point comprised only incomplete sections of refilled trenches lacking timber remains, connected with the main stockade trenches, and one large post butt and random wood fragments. Specimens from this area were likewise few in number and uninformative. They include a quantity of nails, window-glass fragments, some domestic debris, and a few personal objects. It is probable that long cultivation here, as at other points within the whole site, had destroyed most of the structural data sought, and that such specimens as were obtained had been much displaced by cultivation.

The site of one other structure (cellar A) was partially investigated by hand excavation. This was the site of an earth-walled cellar, which was sectioned after part of the disturbed surface materials had been removed to expose the outline of the pit. Prior to excavation, this site had been pointed out by Miss Marjorie Breeden (now of Compton, Calif.), whose parents had formerly owned this property. Miss Breeden recalled that she and others had frequently found small relics in this general area in the past, including a gun fragment at one time owned by Mr. Harold Breeden, a brother.

When the surface soil had been removed, it was seen that the original cellar pit had been almost entirely refilled, largely with random earth,

and very nearly leveled during cultivation, leaving only a slight depression. The borders of the pit were somewhat vague and ill defined, doubtless as a result of the slumping of the walls while the pit was still open, and of differential rates of settling after the pit had been filled with loose earth. In order to obtain information on the original pit, the area was sectioned by a north-south trench approximately 3 feet in width and carried to the floor level of the original pit, approximately 8 feet below the present surface, approximately the depth of the cellar during use.

This section revealed that the north-south dimension of the cellar had also been approximately 8 feet, and the east-west dimension may have been equal, from the outline of the pit visible in horizontal section. The pit appeared to have originally had vertical walls (subsequently somewhat damaged by earth-movements), and at the base of the north and south walls were two or more heavy timbers, to retain the walls and retard earth slumping. These timbers, though heavy, were too greatly decayed to permit accurate measurement, but they appeared to have been not less than 6 inches in diameter, or 6 by 6 inches. The floor of the cellar was marked only by the undisturbed subsoil.

The random fill encountered in opening the cellar section revealed little to illustrate the original use of the pit, most of the fill having been intentionally introduced subsequently, during attempts to obliterate it, probably during the period beginning in 1892 with the homestead settlement nearby. Some of the objects encountered in this fill, probably deposited here after the abandonment of Fort Pierre II, in 1863, certainly pertain to a later period, while a few seem to have been derived from the use of the area at the earlier date, by re-deposit through earth moving and cultivation. Of the older objects, several suggest the presence of Indians at the trading post—e.g., a rimsherd of native pottery (one of only eight sherds from the entire site), a fragment of catlinite pipe, and three small human skull fragments. Of the remainder of the objects found in the cellar, some appear to pertain to the period of the trade (i.e., ca. 1859-63), while others seem to be derived from the later farm period—e.g., clinker fragments, bits of plate glass, parts of the metal frame of a buggy top, and the articulated skeleton of a young horse. In view of the fact that the fill revealed little of the original uses of the cellar, during the period of the trade, the trial section was not extended.

No suggestion was seen of the use of any superstructure with this cellar, probably because of cultivation prior to excavation. It is clear, however, that the cellar had been of some importance for storage, since no other large pit was found at the site. Since the pit was located near a building believed to have been itself primarily for storage

and trade, it is possible that the pit had once held goods of the trade rather than foodstuffs, but certainty on this point is not now attainable.

In view of the presence of military groups in this region at various times after 1855, the question naturally arises whether Fort Pierre II, a trading post, may in any way have been altered or modified by them. Soldier labor would have been available at any time after the occupation of Fort Pierre Chouteau by the Army in the summer of that year, and plentifully with the summer of 1863 and the arrival of Sully's campaign forces. As has been noted, it is improbable that the present post was established until the year 1859, and by 1863 trading activities had been moved from this area downstream to the site of the first Fort Sully. Military construction or alteration of existing trading posts may have been accomplished at certain points in the area, as is suggested by the scanty records of this brief 4-year period, but no specific mention has been found of the employment of soldiers on the present post, or of the quartering of soldiers here, which aids in the study of its construction and use.

There is, on the other hand, evidence to suggest that the post was wholly the work of others than military personnel. At one point along the west stockade line, two ax blades were found in the original fill of the stockade trench, one a single-bit woodsman's ax lacking distinctive features, the other a half ax of the variety frequently called a squaw ax, ordinarily employed by Indian women in gathering fuel and of little use for other purposes. Numerous small glass beads were also obtained from the fill of the stockade trench at various points along its entire course, whereas no military objects were found in the excavation of the trench. The few objects of ultimate military origin found elsewhere, particularly at House-site B, furthermore, do not support the notion of actual residence of troops here. It is probable, therefore, that the original construction of buildings and stockade was accomplished in part with native labor (perhaps Indian women), and probably about the year 1859 rather than subsequently. The use of native labor would have been in keeping with the character of trading operations; White labor was ordinarily at a premium on the frontier, and the traders frequently employed native labor when and where available.

The possibility of the use of the post by the military, after its completion, is not, however, to be disregarded in the study of the site of Fort Pierre II, despite lack of documentation or physical evidence of such use. In the fall of 1856, Galpin, as representative of the Chouteau firm, was officially notified of an opportunity of applying for the position of sutler for the troops at Fort Pierre Chouteau, then numbering 175 men (Capt. C. S. Lovell, Fort Pierre [Chouteau], to Galpin, Oct. 30, 1856; in Chouteau Collections, Mo. Hist. Soc.; information courtesy of Miss Barbara Kell, Oct. 19, 1956). Whether Galpin was

actually appointed at that time is not known. He did, however, submit requisitions for goods needed "for trade and soldiers" some months afterward (Galpin to P. Chouteau, Jr., and Co., Fort Pierre, Mar. 20, 1857). It is probable that the Chouteau firm did serve as sutlers thereafter. The intimate dependence of military personnel, and the War Department itself, upon the trading firms is hinted at in such records. Galpin and other Chouteau agents in the vicinity probably provided sutler services until Fort Pierre Chouteau was abandoned by the Army in the spring of 1857 and subsequently, during the Sully campaign of 1863, prior to the removal of Company interests to the first Fort Sully. No pertinent data for the intervening period are, however, known, though these would doubtless provide further light on Fort Pierre II, if they should be found, as in the National Archives.

Data such as these, of the relation of the traders to the military, illustrate the varied role played by successive trading posts in the area, beyond the primary function of supplying the Indian. They also suggest how military influences upon Fort Pierre II could be explained, without resort to inferring actual military occupation of the post, which is not supported by known records and is, indeed, improbable. Specifically, the presence among the specimens obtained from the site of regulation military items such as uniform buttons, fragments of ordnance and other equipment, may be readily explained by visits of commissioned and enlisted personnel here, and the probability that the post served as canteen, at various times between 1859 and 1863.

No evidence has been seen, in short, that tends to cast serious doubt on the identification of the site excavated as that of a trading post, specifically Fort Pierre II, used 1859-63. While it is true that no contemporary documentation now known conclusively links this site with that trading post, the archeological evidence, comprising physical remains of various kinds, cannot be accommodated to an establishment of any other kind, such as a military post. Nor are there hints, in known contemporary records, of other trading establishments to which the present physical data can be fitted.

The precise identity of the site excavated would scarcely call for discussion except for the fact that there had been several commercial posts in the general vicinity prior to 1859, and at least two in the immediate neighborhood, on the evidence of scanty contemporary and traditional record. (It should be noted that all of these posts were commercial in origin, and true trading posts, though the influence upon them of the military occupation after 1855 must be taken into account where its effects can ultimately be observed; such will unquestionably be the case at the site of Fort Pierre Chouteau, when that site is excavated.) Traditional evidence, however, is seldom conclusive for historical purposes, and does not constitute true primary evi-

dence. The present problem is, therefore, that of identifying this site from scanty records of various kinds, to which the material evidences from excavation must be added—the latter, like contemporary records, constituting true (if limited) primary evidence. Further archival research, fortunately, offers hope of better knowledge of the physical history of Fort Pierre II, as well as of its general historic role.

ARTIFACTUAL EVIDENCE

The following descriptions of selected objects obtained in excavations at the site of Fort Pierre II (39ST217) complement the numerical specimen catalog of all objects collected there, prepared at the Project laboratory. These descriptions have here been grouped in logical classes and subclasses, according to the normal or most usual use of the objects or materials, or with respect to the human activity they best illustrate. The groupings are not, of course, mutually exclusive, and some cross references have been provided where they might facilitate study. No attempt has been made to provide an exhaustive account of each class of objects represented, or to describe or annotate each object or fragment preserved. The descriptive matter is intended for study in connection with materials from other sites, as well as for planning future exhibit use of the specimens.

The entries below provide specimen catalog numbers, identification and description of object, material of which it is composed, state of preservation, shape or design, size or dimensions (where possible), decoration and marks, notes on comparable specimens, and general historical notes. Measurements are usually given in English, inasmuch as this system was that employed by manufacturers of most of these objects, the products of factory and industrial processes. In the case of objects of native significance, those of small size, such as glass beads, and a few special items, measurements are, however, given in the metric system.

CONSTRUCTION MATERIALS AND BUILDING HARDWARE; FUEL

Hardwood.—No. 793: Sawed fragment (flooring?); width ca. 2 inches; thickness ca. $\frac{3}{4}$ inch; partially burnt. Nos. 619, 1185: Other fragments, some of which appear to be hardwoods. Limited quantities of finishing lumber were doubtless obtained by steamboat, from St. Louis and other downriver points.

Chinking, clay.—Nos. 12, 219, 503, 548, 617, 682, 751, 794, 1190, 1274: Numerous fragments, normally a dull gray, though some are accidentally fired and have a buff or reddish color as a result. Several (e.g., Nos. 794, 1190) preserve impressions of the logs or heavy timbers with which the chinking was used.

Bricks, adobe.—Nos. 839–845: Fragments of seven specimens, probably molded; none completely measurable, but apparently 5 to 6 inches in width, ca. 12 inches in length and ca. 3 to 4 inches in thickness (i.e., smaller than sizes customary in the American Southwest). Though originally only sun dried, some of the specimens exhibit traces of accidental firing on one or more surfaces, during

use in masonry. No evidence is to be seen that these bricks were made with a binder such as straw. The masonry from which they were obtained had been laid up with adobe-clay mortar. The use of adobes in the Missouri basin is also known from archeological investigations at the site of Fort Stevenson, N. Dak., and elsewhere, during the 19th century (Smith, 1960).

Bricks, kiln-fired.—Eleven measurable specimens and numerous fragments. Nos. 221, 838, 1186, 1188: Four common red bricks, length $8\frac{1}{4}$ to $8\frac{3}{8}$ inches; width $3\frac{3}{4}$ to $4\frac{1}{8}$ inches; thickness 2 to $2\frac{1}{4}$ inches, the variations merely the result of irregular firing. Nos. 13, 222–225, 837, 1187, 1228: Eight slightly larger, superior bricks, buff to red in color, with coarse, gravelly temper, somewhat friable; length $8\frac{1}{4}$ to $8\frac{1}{2}$ inches; width 4 to $4\frac{1}{4}$ inches; thickness $2\frac{1}{2}$ to $2\frac{5}{8}$ inches; although none of these specimens are marked, they resemble fired bricks found at the site of Fort Stevenson, which are known to have been manufactured by the St. Louis firm of Evens and Howard, established in 1857 (Smith, 1960). By the year 1859 there were, of course, other downriver communities from which brick could have been obtained by steamboat.

Mortar, lime.—Nos. 217, 218, 1184, 1229: Small fragments, flat, from joints in brick masonry; some of these have a fine sandy texture, and are very hard. It is worthy of note that no fragments of finish lime-plaster were obtained at this site.

Spikes and nails.—Numerous lots, including several thousands of specimens, of which some appear to be handwrought, though the vast majority are clearly machine cut. Examples (only) of the former are: Nos. 551, 652, 876; one unique large specimen (No. 332) (pl. 24, *h*), has a length of $10\frac{1}{4}$ inches; another (No. 936) (pl. 24, *g*), has a length of $5\frac{1}{2}$ inches. Examples of the machine-cut nails are: (No. 749) 20-penny; (No. 649) 12-penny; (No. 651) 10-penny; (Nos. 552, 648) 8-penny; and (No. 647) 6-penny sizes. A few finish nails (Nos. 645, 646) are present, 2 and 3 inches in length.

Pintles, door.—No. 514: Wrought iron, length ca. 9 inches, height ca. $2\frac{1}{2}$ inches; No. 943: Length $8\frac{1}{2}$ inches (pl. 24, *a*). Similar specimens have been obtained from the site of Fort Berthold II (Smith, MS.).

Hinges, door.—No. 293: Portion only, probably locally wrought iron, with loop for insertion of pintle, and holes for nailing; length $8\frac{1}{2}$ inches. No. 687: Portion of tapered specimen, with holes for wood screws; length $5\frac{1}{2}$ inches.

No. 628: "Butterfly" style, of cast brass, with 6 holes for screws; length 3 inches; width (open) 2 inches, with engraved letters, inscript: "F. & C. Clark" on obverse, and obscure lettering on reverse (pl. 24, *f*). A similar specimen of butterfly hinge (No. 964), incomplete, of iron, retains 2 small wood screws. A leaf of one similar specimen (No. 995) has a length of $2\frac{3}{4}$ inches. Fifteen leaves of similar specimens (Nos. 114, 423, 774–776, 911, 965–971, 1207, 1242) measure $2\frac{1}{4}$ inches in width, and were of equal breadth when open. One leaf (No. 108), of a similar style, square, measures 2 inches in length, having 2 holes only. No. 346: Portion of one leaf of an H-hinge, of iron; original height ca. 3 inches, width (open) ca. 4 inches, having 3 holes in each leaf (pl. 24, *e*).

Screws, wood.—Nos. 81, 435, 437, 781, 925: Nine specimens, ranging in length from $\frac{7}{8}$ of an inch to ca. 2 inches; others are preserved with hinges described above.

Hook, door.—No. 317: Handwrought iron (portion only, with eye-rivet); length ca. 5 inches (pl. 24, *b*).

Handle, door.—No. 956: Thumb-latch only, of wrought iron; length ca. $5\frac{1}{2}$ inches (pl. 24, *c*). A very similar latch, complete with its handle, of slightly smaller size, was obtained at the site of Fort Berthold II (Smith, MS.).

Knobs, door.—Nos. 18, 465: Fragments of two molded brown ceramic knobs ("marbled"), having a recess in the reverse for the insertion of a metal spindle; diameters $2\frac{1}{8}$ inches and $2\frac{1}{4}$ inches; the latter is fire damaged, but neither was found in direct association with a building site.

Striker, door lock.—No. 988: Machine-forged cast-iron; length $3\frac{3}{4}$ inches, with two holes for screws (pl. 24, *d*).

Glass, window.—Nos. 24, 470, 497, 546, 592, 624, 820, 1173, 1222, 1269, and other lots: Numerous lots, totaling several hundred small fragments, some fire damaged; predominantly a thin gage, ca. $\frac{1}{16}$ of an inch in thickness. Two small sherds (Nos. 466, 467) are lightly etched with floral designs, of a style formerly often used in doors having a glass panel.

Coal, mineral.—No. 1273: Fragments of lignite (?). Fist-sized clinkers from mineral coal (lignite?) are also present (Nos. 220, 657, 795, 1182); one of these resembles natural "scoria" of the upper Missouri region.

TOOLS AND IMPLEMENTS

Chains (log or wagon).—No. 310: Hook only, wrought iron, height ca. 5 inches; breadth ca. 3 inches; worn out in use (pl. 24, *o*). No. 432: Section only, probably from a trace, having one large flat link, 2 twisted links, and a ring; total length ca. 7 inches (pl. 24, *s*). Nos. 108, 431, 908, 972, 973: Other links, of smaller sizes.

Spades.—Nos. 327, 787: Portions of 2 blades, steel, lengths not measurable; widths $6\frac{3}{4}$ inches and $7\frac{1}{4}$ inches. The latter (No. 787) was excavated immediately west of House-site A (dwelling). Two other specimens of spade blades (not preserved) were excavated just west of the probable west wall line of House-site B (warehouse).

Axes, single bit.—No. 640: Height 7 inches; maximum width of blade $4\frac{3}{4}$ inches; weight approximately 4 pounds; slight damage to edge during use (pl. 24, *p*). Found in the original trench fill, along the west stockade line, together with the half-ax described elsewhere (p. 141). No. 295: height $6\frac{1}{2}$ inches, maximum width of blade ca. $4\frac{1}{2}$ inches; weight 2 pounds, 10 ounces; slight damage to edge of blade, and forward edge of eye, during use. Probably locally forged.

File, carpenter's.—No. 996: Portion of a flat file, with shank, width ca. 1 inch; fire damaged,; from House-site B (warehouse).

Chisel or wedge.—No. 315: Handwrought from a steel file (machine made), showing evidence of use; length 5 inches (pl. 24, *r*).

Punch, carpenter's.—No. 363: Steel, shank rectangular in section, drawn to a chisel end; length $3\frac{3}{4}$ inches; width of working end $\frac{1}{4}$ of an inch only (pl. 24, *q*).

Wire.—Nos. 95, 388, 486, 536, 575, 669, 932, 1254, 1255: Fragments of plain iron or steel wire, of various gages. Nos. 576, 635, 667, 1253, 1256: Five fragments of barbed fence wire; two are single strand with single pairs of barbs, one (No. 1253) has double pairs of barbs.

HARNESS AND FARRIERY; WAGON PARTS

Ox shoe.—No. 117; Unique specimen (used in pairs), iron, with four shoenails; height ca. $3\frac{1}{2}$ inches (pl. 24, *k*); approximate width of a pair of this size, in use, $4\frac{1}{2}$ inches. Has small cleats (worn) at upper and lower margins.

Horseshoes.—Nos. 299, 303, 304, 305, 306, 696, 977: Seven complete or fragmentary shoes, with and without cleats. One (No. 306) is for use on a heavy draft animal; length ca. 7 inches; width ca. $6\frac{3}{4}$ inches. Another (No. 304), much worn, is of a size suitable for a pony; length ca. $4\frac{1}{4}$ inches; width ca. $4\frac{1}{2}$ inches.

Buckles, harness.—No. 100: Steel, width $1\frac{1}{4}$ inches. No. 595: Steel, for smaller strap, width $\frac{7}{8}$ of an inch. No. 1023: Cast brass, width 2 inches (pl. 24, l). No. 1237: Cast brass, width 1 inch. The latter two lack a tongue.

Hinge, strap.—No. 197: Sheet brass, die-stamped with floral decoration, width $1\frac{1}{2}$ inches (pl. 24, m); probably for use with leather harness straps, to which it was fastened with small iron rivets.

Axle, wagon.—No. 307: Portion of cast iron shaft only, length $10\frac{1}{2}$ inches; maximum diameter ca. 2 inches.

Axle-housings, wagon.—Nos. 641, 642, 643: Wrought iron; interior diameters $5\frac{1}{2}$ inches, $5\frac{7}{8}$ inches, and 6 inches; widths of bands ca. $1\frac{1}{2}$ inches; thickness of metal ca. $\frac{3}{8}$ of an inch; all from heavy wagons such as mule-drawn Army wagons.

Linchpin.—No. 323: Portion of one arm (curved) only; length ca. 2 inches (pl. 24, j). Perhaps a part of a patented variety of pin. Has small eye at one end, a small loop at the opposite end, upon which the arm revolved. The linchpin was passed through the axle of some wagons, to keep the wheel in place.

Clevises.—No. 326: Steel, length 9 inches; width $4\frac{1}{2}$ inches. Nos. 319, 322, 936: Similar specimens, of smaller size (pl. 24, i); the last has rotating arms for attachment to wood, and may be from a buggy shaft.

Wagon bolts.—No. 1244: Square head; threaded shank, length $4\frac{3}{4}$ inches (pl. 24, n). No. 1004: Flat head; threaded shank, length 5 inches. No. 354: Flat head; threaded shank, retains nut; length $4\frac{1}{2}$ inches. No. 956: Rounded head; threaded shank, length $3\frac{3}{4}$ inches.

Wagon parts (miscellaneous).—Numerous iron fragments, largely wrought iron, and some probably of local fabrication; many are obviously wagon fittings, but complete description is not attempted here. These pieces appear to pertain to both the period of the Indian trade at Fort Pierre II and that of the agricultural period that followed.

Wheel, balance.—No. 328: Portion only, cast steel; probably from an agricultural machine such as a threshing machine; diameter $3\frac{1}{2}$ inches; thickness $1\frac{1}{4}$ inches.

Mower blades.—Nos. 300, 301, 302, 512, 934, 935: Six specimens, some showing evidence of use; width 3 inches. These obviously pertain to the agricultural period at this site.

Buggy-top.—Nos. 1249–1251: Three fragments of steel stays only, having brass ornaments and lock plates.

FURNITURE AND HOUSEHOLD ARTICLES

Stoves, cooking.—Numerous small parts (incomplete), of cast iron. Nos. 270, 271, 278, 284: Fragments of round lids, diameters ca. $7\frac{1}{2}$ inches. Nos. 272, 274: Fragments of lid of slightly different design. Nos. 347, 425, 1003: Fragments of curved dividers, used to support lids. Nos. 275, 979: Fragments of unidentified parts of stoves. Lumps of mineral coal, also obtained, are referred to above (p. 132).

Stove pipe.—No. 572: Flattened section, sheet iron, with crimped interior seam; original diameter ca. 3 inches.

Cabinet (chest of drawers).—No. 782: Handle only, steel, die-stamped, length $3\frac{1}{2}$ inches. No. 1162: Small brown ceramic knob, with recess for metal spindle; height $\frac{1}{2}$ of an inch; diameter $\frac{3}{4}$ of an inch. No. 579: Hinged fastener, for cabinet or box, cast brass, length ca. $2\frac{3}{4}$ inches, width ca. 1 inch (pl. 25, a).

Candlestick.—No. 789: Center column only, sheet brass, with a portion of the iron base; the column was provided with a slot for the candle-ejector (missing), and has simple decoration, parallel engraved lines, in sets of three; approximate height of entire object ca. 4 inches (pl. 25, b). From House-site A (dwelling).

Bibcock (spigot).—No. 1052: Brass (lacking handle or key); length $5\frac{1}{2}$ inches; of a kind formerly used with a wooden keg or barrel; interior diameter of spout $\frac{5}{16}$ of an inch (pl. 25, *d*).

Kettle.—No. 786: Large rim sherd of cast-iron kettle (greatest dimension ca. 9 inches); height of original vessel ca. 9 inches; maximum diameter ca. 10 inches, probably provided with legs. Several smaller fragments, spherical or curved, are also present, probably from similar kettles. No. 691: A fragment of the base of a brass kettle or pail, diameter ca. 9 inches. Several cast lugs: No. 885: with rivets for attachment to body of kettle, width $2\frac{1}{4}$ inches; No. 321: with holes for attachment and for a separate handle, width 4 inches; No. 1246: with holes, width 2 inches.

Griddle.—No. 325: Cast iron, with low rim and annular rest (lacking handle); diameter $9\frac{3}{4}$ inches.

Coffee grinder.—No. 311: Steel handle only, length ca. $5\frac{1}{2}$ inches, bearing cast letters in relief: "ADAMS"; probably a patented variety (pl. 25, *c*). No. 711: Small fragment of conical perforated housing in which such handles fitted; diameter ca. 3 inches; height $1\frac{5}{8}$ inches.

Coffcepot.—No. 948: Handle only, blue enameled steel "hollow-ware"; length ca. $5\frac{1}{2}$ inches. Enamelware (often called "graniteware") dominated the American market, supplanting much of the earthenware previously sold, about the year 1900, and was itself superseded in many fields by newer products of aluminum, glass, and, most recently, plastic.

Whetstones.—Five specimens (all fragmentary); one (1122), of micaceous schist, apparently commercially made; width ca. $1\frac{3}{8}$ inches, thickness $\frac{7}{16}$ of an inch. The others (Nos. 1121, 1123, 1124, 1125), fragments of tabular stones, appear to be of local origin.

Knife, kitchen.—No. 1194: Fragmentary, steel, with wood fittings, attached by five small brass pins; original length ca. 10 inches (pl. 25, *f*). No. 986: fragments of curved blade of a knife of comparable size.

Forks, table.—Nos. 324, 567, 783, 918, 919: Fragments of metal parts. One (No. 783), probably originally 7 inches in length, still retains one of the two original wood fittings, held in position by three small brass pins (pl. 25, *e*). All of the specimens are fragments of three-tine forks, except for one (No. 919), which has but two. Bone and metal parts of what is probably another specimen (No. 1053), were fastened with two large and two small brass pins; original length of this specimen ca. 7 inches.

Spoon, serving.—No. 1009: Iron, length ca. 8 inches (broken); the bowl is pointed, and the handle is curved (die stamped toward the under surface, for strength). No. 400: Handle fragment only, die stamped, of iron.

Jugs, stoneware.—Numerous small sherds, buff, light brown, and dark brown in color. One rim fragment (No. 460) is from a dull brown small-mouth container, (perhaps a preserving jar). Another (No. 654) is a shoulder fragment of a light-buff-colored bitters bottle, of a common variety, similar to specimens found at Fort Berthold II and elsewhere (Smith, MS.). Of the remaining sherds (Nos. 22, 462, 545, 799, 1174, 1267) totaling approximately 64, some are fragments of jugs and covers, and illustrate common color varieties—gray, brown, and buff particularly.

Jardiniere.—No. 1265: Large heavy sherd of light-brown slipped ware, hand thrown but bearing bold appliqué floral design in relief (pl. 25, *k*). (Period 1890 (ff.?).)

Mixing bowl.—No. 459: Large sherd of buff queensware, decorated with alternating narrow brown and white bands; height ca. 5 inches (pl. 25, *l*). A few other sherds from such vessels (Nos. 21, 463, 1159) are all of a buff color.

Bowl (whiteware).—No. 439: White glazed, flaring cuplike shape (fragments only); thinwalled, hand decoration a wide band of pale green near the lip, with a narrow band of pale red below; not measurable. Another fragment (No. 453) of a grayish-white earthenware, bearing manufacturer's marks (transfer): "Ironstone China / [British arms] / J. & G. Meakin / Hanley / England" (pl. 25, *m*). This firm, one of the best-known Staffordshire producers (at present Stoke-on-Trent) of "ironstone" ware, began this manufacture early in the last century and still exports large quantities.

Teapot.—No. 1146: Fragment of the perforated strainer only; glazed white earthenware of good quality.

Cups.—No. 801: Glazed grayish-white "ironstone" type cut (without handle), with strong annular base (probably used without a saucer); lacks manufacturer's marks; height $3\frac{1}{2}$ inches, diameter at lip 4 inches (pl. 25, *o*). No. 802: Identical specimen (fragmentary). No. 445: Similar specimen (fragment), having thicker walls. No. 438: Base only of a smaller specimen, having slightly different shape.

Saucers.—No. 803: Glazed grayish-white "ironstone," lacking manufacturer's marks; height $1\frac{1}{2}$ inches; diameter $6\frac{1}{2}$ inches; widely flaring rim, probably for use in cooling beverage from the cup, as was formerly often done (pl. 25, *n*). No. 805: Similar specimen, except that it has underglaze transfer designs in grayish-black, an Oriental scene with arabesque border, on upper surface, and on the base the mark (transfer): "Calcutta / E. Challinor" (pl. 25, *p*). The firm of Edward Challinor (or Chalinor) is said to have begun the pottery business at Burslem (now part of Stoke-on-Trent), Staffordshire, England, as early as 1819, having acquired works previously owned by the great Wedgwood family; Challinor is also said to have manufactured at Fenton (also now part of Stoke-on-Trent) from 1862 until 1891 (Chaffers, 1954, p. 662; Cushion and Honey, [1956], p. 296).

Fragments (No. 1154), probably of a cup and saucer, apparently of bone china, having a wide yellow band and a narrow gold-leaf band; are probably hand-decorated fragments. Another sherd (No. 1161), a small portion of the base of a bowl or cup, has an exterior surface of copper luster, the interior a cream glaze. Three sherds (No. 1159) are from a cup or bowl of Bennington-like ware (American or English).

Tableware ("whiteware"), miscellaneous.—Numerous other shapes are represented by fragments of common whiteware obtained, such as plates, bowls, covers, cups, saucers, and the like, of the "ironstone" class, undecorated (e.g., No. 464, with 230 sherds); one sherd of the lot preserves a human face with helmet, in relief, of a Classical design, perhaps from a tureen or sugar bowl (pl. 26, *h*). Nos. 19, 804, 1158: Other comparable lots of sherds. One lot (No. 726) even includes heavy sherds apparently from a chamber pot. Few manufacturer's marks appear on these pieces; one (No. 454) bears the mark (transfer) "Ironstone chin[a] / James Edwar[ds]"; another (No. 1157) that of "T. J. & J. Maye[r] / Dale Hall Potter[y] / Longport / Improved Berlin Ironsto[ne]." The Edwards and Mayer firms are well-known manufacturers of Stoke-on-Trent (which includes Longport or Longton).

Numerous other sherds of the same types of wares have transfer designs in blue (Nos. 20, 449, 1148, 1263), some of these of the "featheredge" types of tableware; others are in black (Nos. 1151, 1216), red (Nos. 20, 450, 729, 1149), or brown (No. 1152). Special designs of this type in brown are (No. 443), human figures (pl. 26, *b*); (No. 444), scenes (pl. 26 *a*); and (No. 807) floral designs. Two sherds in black transfer (Nos. 445, 448) have floral designs (pl. 26, *e*). Some of the transfers are inside-outside designs.

A few sherds are from hand-decorated whiteware vessels. One (No. 806) has "squiggles" in light blue (pl. 26, *c*); another (No. 808) has bands in red and green (delftlike); another (No. 1150) has a floral design in red, green, and blue. One sherd (No. 543), apparently true "creamware," has a brown band and a blue floral design (pl. 26, *d*).

Several sherds exhibit molded decorative designs (of varieties introduced during the late 19th century, manufactured with dies). One (No. 447) includes the finial of a cover, perhaps of a sugar bowl (pl. 26, *f*). Another (No. 725) is a nonfunctional floral lug (pl. 26, *g*). Two (Nos. 457, 458) are three-lobed ends of handles. One (No. 724) is a lug from a tureenlike piece (pl. 26, *j*).

Tumbler (drinking glass).—Nos. 817, 818: Heavy clear-glass pieces of good quality, having an octagonal base and flat side panels (rising to a smooth rim); height $3\frac{1}{2}$ inches; diameter of base (least) $2\frac{3}{8}$ inches; size approximately 6 ounces liquid, and probably whiskey glasses (pl. 25, *g*). Nos. 25, 471, 472, 473, 721, 1171: Fragments of bases of identical specimens.

Bottles, glass.—Nos. 25, 473, 492–496, 547, 594, 623, 658, 675, 723, 731, 819, 1171, 1221, 1270: Approximately 742 assorted sherds of bottle glass, clear, light and dark green, brown, and blue tints. Shapes represented include wine bottles, whiskey flasks, and condiment (pickle) jars. The flasks are plain, violin-shaped (with scroll decorations in relief), and others, with some fragments of special patterns, such as one (No. 473) marked "Old Rye" (in panel), with part of a human figure, similar to, if not actually the somewhat rare "Pike's Peak or Bust" flask (pl. 25, *j*). Others (No. 722, e.g.) appear to be bits of eagle flasks (spread eagle, head to left) or of portrait flasks, on which the eagle was commonly used. One fragment (No. 473) has the eight-point sunburst motif often used, but in this instance the glass is of a brown tint (probably rare) (Cf. McKearin and McKearin, 1941, pp. 483, 570–577).

Bottle stopper.—No. 1165: Clear glass stopper, similar to those used in pharmaceutical bottles, having a flat round grip; height $1\frac{3}{4}$ inches.

Thermometer.—No. 1168: Fragment of clear-glass rod having a thread of pale red through the center; fire damaged; length ca. $1\frac{1}{4}$ inches.

Pencil, slate.—No. 1056: Fragment of gray-black slate pencil, flattened and pointed.

Tabulating device (?).—No. 1038: Brass key only, length $2\frac{1}{2}$ inches, with finger rest and holes for pivots; probably from a simple accounting device (pl. 26, *k*).

Battery, dry-cell.—No. 211: Portion of carbon column only, hexagonal in cross section and ribbed; maximum diameter 1 inch; of a kind used ca. 1890 to date.

Insulator, electrical.—No. 1163: Molded "porcelain" (glazed white earthenware), of type used with telephone wire, ca. 1890 to date; height $1\frac{1}{8}$ inches; diameter $1\frac{1}{8}$ inches. A fragment of another (No. 456), of slightly different design, has a diameter of 1 inch.

Plate glass.—Nos. 468, 469, 1167: Fragments only, $\frac{3}{16}$ and $\frac{5}{32}$ of an inch in thickness; one fragment has a ground and polished straight edge. Possibly from the recent era of the motor vehicle.

MILITARY GOODS

(*Cf. also Personal Possessions*)

Hat ornament.—No. 1058: U. S. Army regulation officer's hat ornament, brass, die-stamped, with spread eagle (head to left), shield, stars, "E pluribus unum," and other devices (pl. 27, *f*). Formerly worn at the side of the black felt hat, for dress occasions; both officers and men wore the insignia of the branch of

service (such as the bugle of the infantry) with the less formal forage cap, or on the front of the officer's felt hat. A similar specimen was obtained at the site of Fort Stevenson (Smith, 1960).

Buttons, military.—No. 1069: Brass uniform button, diameter $\frac{3}{4}$ of an inch; regulation U.S. Army style, with devices and, on the reverse, the die-stamped legend: "Extra/Quality," only. Nos. 130, 1070: Two brass uniform buttons, diameter $\frac{9}{16}$ inch; regulation U.S. Army style, the shield bearing the letter "D" in relief (indicating the company letter) and, on the reverse, the die-stamped legend: "Scovills [sic] & Co./Extra" (pl. 9, e). No. 1071: Another specimen is identical except in having the letter "I" on the face, and in lacking a manufacturer's mark on the reverse (pl. 27, c). The Scovill Company, of Waterbury, Conn., has long been one of the chief American manufacturers of uniform buttons and other brass and metal products (Lathrop, 1926, pp. 88, 101-102). Similar Scovill specimens have been obtained at the site of Fort Berthold II and elsewhere (Smith, MS.).

Companies D and I of the 8th Minnesota Volunteer Infantry and Companies D and I of the 2d Minnesota Volunteer Cavalry were included in the Sully command of the summer of 1864, and served on the Dakota and Nebraska territorial frontier (Minnesota, 1890-93, vol. 1, pp. 386-415; 543-571).

Nos. 131, 1072: Two brass uniform buttons, diameter $\frac{9}{16}$ of an inch; regulation U.S. Navy style, with spread eagle (head to right), anchor, 13 stars and, on the reverse, the die-stamped legend: "Scovills [sic] & Co." (pl. 27, b and d). The presence of Navy buttons at this site might be explained by the suggestion that they were surplus military goods issued to the Indians by the Indian Office, during the period 1859-1863 or subsequently.

Scabbard.—No. 1042: Brass tip only; conical, length $3\frac{1}{8}$ inches (pl. 27, a).

PERSONAL POSSESSIONS

(*Cf. also Trade Goods*)

Medal, religious.—No. 505: Roman Catholic medal, cast brass, oval with loop; height 28.0 mm., width 20.0 mm. (pl. 27, g and h). Obverse: figure of the Virgin Mary, with rayed hands, upon a hemisphere, surrounded by the legend "O Marie Consue San Peche Priez Pour Nous/Qui Avons Recourse a Vous" and the date, 1830. Reverse: figure of St. Patrick with crosier, which pins a snake to the ground at his feet, and surrounded by the legend: "Saint Patrick Priez Pour Nous."

In the year 1830, Catherine Labouré (subsequently canonized) experienced visions of the Virgin, and the Order of the Sacred Heart was established in commemoration of these events. The first medals of the Order are said to have been struck in 1832 (Catholic Encyclopedia, vol. 10, p. 115). Two other Catholic medals were obtained at the site of Fort Berthold II, one of these of the slightly later variety ordinarily referred to as the Miraculous Medal (bearing the letter M, a cross, and two hearts bearing flames, and on the reverse an image of the Virgin also) (Smith, MS.).

Despite the legends of this medal, its manufacture may have been elsewhere than in France; Spanish-language medals, designed for the Mexican market, are said to have been struck at Birmingham, England (long a center of the manufacture of metal goods for export) at this period (Gregg, 1954, pp. 174-175 and note). In this connection, it is probably worthy of note that the name of the saint here appears in the English form (Patrick), though the legend is in French.

Coins.—No. 1011: Silver U.S. dime, dated 1857, without mint mark, indicating the Philadelphia mint (pl. 27, j). No. 1010: Silver U.S. quarter dollar,

dated 1857, and with mint mark "O," indicating the New Orleans mint, which operated from 1838 to 1909 (pl. 27, *i*).

Pocket knife.—No. 210: Metal and wood fragment only, the wood held in place by four or more small brass pins.

Tobacco pipes (molded clay).—No. 1192: Glazed, buff color; having a short stem and used with a reed; the bowl is a human head, in Classical style; height of bowl $1\frac{3}{4}$ inches, diameter of bowl ca. 1 inch (pl. 27, *q*). This variety of glazed pipe is sometimes said to be of Continental (Dutch or North German) style. No. 1077: Fragment of the lip of the bowl of a glazed pipe, in white (at the rim) and brown; diameter ca. $\frac{7}{8}$ of an inch, the bowl slightly bulbous. No. 193: Slightly bulbous, off-white, unglazed; exterior diameter of bowl ca. 1 inch; height ca. 2 inches (pl. 27, *s*); the decoration (in relief) is a calyxlike leaf arrangement, enclosing the bowl, with a series of 14 "stars" or sunbursts (8-pointed) about the lip; below this band, and between the points of the leaves are four decorative elements (obscure "stars" or fleur-de-lis). Nos. 151, 153, 154, 196, 705, 823, 1074, 1075, 1079, 1081, 1092, 1232: Twelve fragments of bowl, of identical style; two (Nos. 705, 823) show that the base of the bowl ended in a small spiral, which served as a heel.

The soleil (sun with rays, or sunburst) symbol is particularly associated with Louis XIV of France, known as the "Sun King," who reigned from 1643 to 1715; the fleur-de-lis is an even more ancient French heraldic device. The presence of such decorative elements on these fragments suggests that the pipes are of French manufacture. (Manufacturer's marks ordinarily appear on the stem during the 19th century, but no such marks have been preserved on stem fragments obtained.)

This specimen (No. 193) has been darkened by smoking, and part of the original dottle (No. 194) was also obtained.

No. 150: Fragment of the bowl of a pipe, height ca. $1\frac{3}{4}$ inches, having the letters (in relief) "TD," with serifs, on either side of the mold joint facing the smoker, the letters surrounded by a circle of 13 stars (6-pointed), and a band of similar stars about the circumference of the bowl, at the lip. Nos. 152, 822: Small fragments of pipes of apparently identical design. Very similar specimens of this common variety of pipe have been obtained at the sites of Forts Ridgely (Minnesota), Laramie (Wyoming), Berthold I and II (North Dakota), and elsewhere (cf. Smith, MS.). The employment of only 13 stars, frequently found on this class of pipes, suggests that the design may have been particularly for the American market, since the variety is known to have been manufactured in Europe, whereas marked American specimens are not known. Long after the adoption of an American flag, about 1777, regimental flags are said to have exhibited 6-point stars almost as frequently as 5-point, and it is probable that the former design for the star was the earlier, whereas the latter came to be the proper style in the canton of the American ensign (Quaife, 1942, pp. 141, 147).

Nos. 583 1091: Small fragments of undecorated short-stem pipes, for use with a reed, of buff-red ("brick") color, height of bowl ca. 2 inches. The short stem is provided with a bold milled flange (pl. 27, *r*). This type of pipe is believed to be of American (Pennsylvania German?) manufacture, in imitation of aboriginal American styles of pipes, or of Continental styles. Nos. 23, 195, 461, 1078, 1090: Fragments of bowl, heel, and stem of similar pipes, gray-buff in color, undecorated, and lacking any flange on the stem.

Nos. 155, 192, 474, 501, 523, 626, 824, 1193: Approximately 52 fragments of white clay-pipe stem, some blackened by use, but lacking manufacturers' marks; only 2 (Nos. 155, 192) show any decorative designs, and both may

be from pipes of the style described above (No. 193), having a calyxlike bowl decoration.

Cosmetic jars.—No. 228: Cream-white glazed earthenware jar (top only), lacking decoration or marks; height $\frac{5}{8}$ of an inch, diameter $2\frac{1}{8}$ inches, probably for cosmetic (such as shaving soap) or powdered snuff (pl. 27, v). No. 1145: Fragment of top of similar specimen, diameter ca. 3 inches, having (in black transfer) manufacturer's marks with floral border: ". . . Pre[mium /Sh]aving Crea[m] / . . . & Silver Medals award[ed . . .] / . . . Institutes of New Yor[k . . . / Phi]ladelphia & Boston [. . .] / X. Bazin, / 114 Chestnut St. / [Phi]ladelphia . . ." (pl. 27, w). A small fragment of the top of another specimen (No. 440) has a floral decoration in dark red, similar but not identical.

Xavier Bazin, perfumer, is listed in Philadelphia directories as having been located at 114 Chestnut Street from 1850 to 1856; in the latter year he removed to 166 Chestnut, and in 1869 took a partner (information from R. N. Williams, 2d, Director, Historical Society of Pennsylvania, Nov. 19, 1957). It is therefore probable that this fragmentary specimen of his jars for soap was manufactured prior to 1856. No. 707: A portion of the side of a small clear-glass jar, height ca. $2\frac{1}{4}$ inches, diameter ca. $1\frac{3}{4}$ inches, and cylindrical in shape, with numerous small side panels, is probably also a cosmetic container.

Comb, ornamental.—No. 1235: Brass frame only, having a floral die-stamped design and small glass insets (some lacking); width $4\frac{3}{8}$ inches (pl. 27, x).

Comb.—Nos. 34, 1108: Two fragments of black hard-rubber comb, of a style with fine teeth on two edges, often used for infants' hair, and believed to have been much used in the Indian trade, specifically for ridding head hair of vermin.

Doll.—No. 1096: Foot only of good quality white "porcelain" doll, the shoe painted black, with lacing on the inner side of the ankle, and buff on the sole; the shoe is notably pointed, and is of a style of footwear of the 1860's; length of shoe approximately 2 inches (pl. 27, u). No. 1144: Fragment of a grayish-white "porcelain" doll leg, diameter ca. 1 inch (hollow).

Figurine or vase.—No. 797: Fragment of the rectangular base of a white "porcelain" figurine or miniature vase, with traces of gilding.

Marble (child's).—No. 1093: White (apparently natural marble), with traces of narrow painted red bands about the middle, diameter $\frac{3}{4}$ of an inch (pl. 27, t).

Thread.—No. 156: Fragment of cotton (?) thread, apparently preserved because of contact with copper salts.

Pins, garment.—Nos. 127, 209: Thirteen common brass pins, with small heads; lengths 1 to $1\frac{1}{2}$ inches.

Buckles, suspender.—No. 1022: "White metal" and iron, width $1\frac{1}{2}$ inches; die-stamped with simple floral decoration. No. 1021: Another specimen, of brass, also die-stamped with a floral decoration.

Garment hook.—No. 148: Brass, with loops for fastening by sewing; length 11.0 mm.; used with an eye, fastened to an opposite edge of a garment. This device, formerly (like the shoe button) so very common, was originally devised to meet the needs of persons who for religious reasons did not wear garment buttons—groups such as the Amish (a conservative division of the Mennonite sect). Once available in the market, "hooks and eyes" were sold in vast quantities; in recent years the demand for them has steadily declined in the face of competition from newer shoe- and garment-fastening devices such as the slide-fastener. (A copyright was issued in 1923 to the B. F. Goodrich Co., for the name "Zipper," for overshoes equipped with these special slide fasteners; this trade name is today almost more familiar than the generic name, "slide fastener.")

Buttons:

Bone.—No. 1073: Lathe-turned, having 4 holes, diameter $1\frac{1}{4}$ inches (pl. 27, *k*). Nos. 29, 1082: Five similar specimens, diameter $\frac{5}{8}$ of an inch; the proportion of rim to center and the spacing of the holes vary. Nos. 29, 33: Two similar specimens, diameter $\frac{1}{2}$ of an inch, also varying in proportions. One (No. 1086), apparently bone dyed black, has a wide rim and 4 holes; diameter $\frac{5}{8}$ of an inch.

Shell.—No. 1083: Turned specimen, having a wide rim; "mother of pearl" (probably fresh-water shell) diameter $\frac{7}{8}$ of an inch, with 4 holes (pl. 27, *l*). No. 28: A similar specimen, diameter $\frac{9}{16}$ of an inch, has a narrower rim. No. 1083: Another, diameter $\frac{1}{2}$ of an inch, lacking a separate rim, has a small hole for a metal loop (lacking). No. 1084: Another similar button, of the same size, has a small hole on the under surface for the loop, which was apparently cemented to the shell face. Nos. 27, 1083: Three similar specimens, having 4 holes, diameter $\frac{3}{8}$ of an inch. Nos. 27, 182: Four specimens of this size are similar, but have a simple engraved "floral" design on the face. No. 182: Another plain specimen, diameter $\frac{5}{16}$ of an inch. Buttons of fresh-water shell ("pearl" or "mother of pearl") were apparently first manufactured in the United States as recently as 1891.

Metal.—No. 1063: Fancy brass button, with shank, the face decorated with a die-stamped star and fillet; diameter $\frac{1}{2}$ of an inch (pl. 27, *n*). No. 1063: Another specimen having a brass base has the face decorated with enamellike material, in the form of a cross; diameter $\frac{3}{8}$ of an inch (pl. 27, *m*). No. 1068: A flat brass button, of a style long made (and sometimes covered with fabric), diameter $\frac{3}{4}$ of an inch, originally had a brass shank (lacking), and carries the die-stamped legend: "London/Imperial." No. 712: Spherical brass button with loop, diameter 20 mm. (pl. 27, *o*). No. 1062: A hollow metal button, having two faces (fire damaged), diameter $1\frac{1}{4}$ inches, shank lacking, was probably originally cloth covered, traces of fabric being visible on the upper face. No. 596: A similar damaged specimen, diameter $1\frac{1}{4}$ inches. No. 186: A similar specimen, diameter $\frac{9}{16}$ of an inch, also has traces of fabric adhering. No. 132: Another flat button-base, of zinclike metal, with two holes, is crudely cut, diameter ca. $1\frac{1}{8}$ inches, and probably also lacks its original cloth covering.

Nos. 104, 129, 183, 184, 185, 476, 507, 816, 1064, 1066, 1067: Twenty-one common metal buttons (iron, white metal, brass, and other metals), diameters $\frac{1}{2}$ to 1 inch, of various styles (flat, hollow, with and without shank, with 2 and with 4 holes, and the like), some fire damaged, some of the varieties used with "overall" work clothing.

Milk glass.—Nos. 30, 31, 32, 181, 504, 815, 1085, 1087, 1088, 1191: Seventy-nine specimens of milk-glass buttons, largely white, having 4 holes, diameters $\frac{3}{8}$ of an inch to $1\frac{1}{16}$ of an inch. Three of these (Nos. 504, 1088) have a molded decoration (dots near the rim); three (Nos. 31, 1085, 1088) have a simple transfer decoration (a blue or red "fabric" pattern). Three other similar plain specimens (Nos. 31, 32, 1087) are of a blue milk glass; one (No. 31) is a plain buff color. Milk glass is an opaque variety of ordinary glass that became very popular early in the 19th century; many garment buttons are today still made of glass, despite the introduction of newer substances such as plastics.

Hard rubber.—No. 128: Fancy button having a hard rubber base, with a molded shank (missing) and an inset ceramic face, in green, gold, and white; diameter $\frac{9}{16}$ of an inch (pl. 27, *p*). Probably manufactured under hard-rubber processing patents, first issued in the 1840's to Charles Goodyear.

Shoes:

No. 213: Heel only of a child's leather shoe, with metal pegs; width ca. 2 inches. No. 1233: Heel only of an adult's (woman's?) shoe, with metal pegs; width ca. $2\frac{1}{2}$ inches.

TRADE GOODS

(*Cf. also Personal Possessions*)

Firearms.—A small group of gun parts, flints, cartridges, bullets, and balls was obtained in excavations, of which a detailed account has kindly been prepared by Dr. Warren W. Caldwell for separate publication (Caldwell, MS.). Reference is therefore made to this account for descriptions of these objects.

Cap box.—No. 1050: Brass (cover only), diameter $1\frac{1}{2}$ inches; with die-stamped legend: "Goldmark's Patent American/Safety Percussion Caps/Metal Lined/[spread eagle, head to left, with shield]/D 100 G/Warranted/Water Proof" (pl. 28, *g*). J. Goldmark was a New York manufacturer of ammunition (Lewis, 1956, pl. 44, *o*).

Arrowpoint.—No. 101: Steel, having a small stem; length ca. $2\frac{3}{8}$ inches (pl. 28, *m*). Numerous comparable specimens were obtained at Fort Berthold II (Smith, MS.).

Half-ax ("squaw ax").—No. 639: Wrought iron; height $6\frac{1}{2}$ inches; width of blade $3\frac{3}{8}$ inches; weight 1 pound, 14 ounces (pl. 28, *a*). Found in the original trench fill, along the west stockade, with the single-bit ax described above (p. 132). A similar specimen, weight 2 pounds, 5 ounces, was obtained at the site of Fort Berthold II (Smith, MS.).

Trap, animal.—No. 377: Tapered fragment (portion of spring) of steel trap, original length ca. 5 inches (pl. 28, *l*); apparently of the variety frequently known as the "Oneida" trap, manufactured at Oneida, N.Y., by the Oneida Community (also well known for its silverwork), established in 1848.

Tweezers.—No. 1033: Sheet brass, length $2\frac{5}{8}$ inches; a part of one branch is missing (pl. 28, *n*). Comparable specimens were obtained at Fort Berthold II (Smith, MS.). An article frequently traded to the Indians, for the removal of beard hairs.

Earbob.—No. 1019: Conical silver-plate (hollow) ornament, having a small loop at the upper end for insertion in the lobe of the ear; length ca. 1 inch (pl. 28, *j*).

Bracelet.—No. 926: Undecorated oval bracelet, of heavy brass wire; width ca. $2\frac{1}{2}$ inches (pl. 28, *o*). Similar specimens were obtained at Fort Berthold II (Smith, MS.).

Finger rings.—Nos. 142-146, 198, 1012-1016: Eleven specimens, all of brass or white metal, narrow bands differing slightly in width, and lacking decorations or engraving; sizes range from diameter 17 to 22 mm. Several similar specimens were obtained at Fort Berthold II (Smith, MS.).

Tinklers.—No. 1020: Two sheet-brass cones, rolled, length ca. $1\frac{1}{2}$ inches and 1 inch (pl. 28, *h, i*).

Beads, glass.—Approximately 3,120 beads (plus 54 fragments) were obtained at the site of Fort Pierre II, an array of sufficient numbers and varieties to provide interesting material for comparison with other large bead collections (cf. Smith, 1953). A detailed account is not attempted here, but specimens and groups of special note are as follows:

Nos. 35, 187, 813: Sixteen whole or fragmentary dull white (satiny) tubular beads (similar to the French *canon* bead); diameters 3 to 5 mm., of irregular lengths, 8 to 22 mm. (pl. 29, *k*). Nos. 37, 53, 62, 190: Twenty translucent colorless beads, made of hexagonal tubing and sometimes irregularly finished, diameters 4 to 6 mm., lengths 3 to 6 mm. (pl. 29, *i*). Some of these have been provided with facets at the ends, in finishing them for sale. Nos. 47, 66: Forty similar specimens, violet-black in tint. Nos. 55, 66: Sixteen similar, in amber tint. Nos. 52, 53, 190: Fifty-five similar, in a dark blue tint. Nos. 62, 66, 77: Twenty specimens, of a dark green tint. Nos. 52, 62, 64: Two dark-blue trans-

lucent beads (similar to the preceding, but with larger facets, and more carefully finished) are 18 mm. in length, 6 to 7 mm. in diameter, the diameters thus approximately one-third the length of the beads (pl. 29, *j*). Nos. 62, 64: Three similar dark-green translucent beads. No. 76: A similar red translucent bead. No. 64: One similar black specimen. No. 37: A fragment of a similar colorless bead. No. 50: Spherical bead, greenish paste, having parallel ridges about its circumference (unique specimen); diameter and length 8 mm. (pl. 29, *d*). No. 190: Fragment of black bead, olive-pit shape, original length ca. 18 mm., diameter ca. 10 mm. No. 78A: Fragment of large opaque blue bead, diameter ca. 20 mm. A comparable, even larger specimen was obtained at Fort Berthold II (Smith, MS.). Nos. 60, 78A: Similar black beads, diameters 12.5 mm. and 11.0 mm. (pl. 29, *c*). No. 812: Seven identical ornamental beads, slightly oblate-spherical, diameters 12.5 to 14.0 mm., having an opaque milky paste, and with dark-blue and white marbling; probably originally worn in a strand (pl. 29, *l*). Recovered from House-site A (dwelling), at the floor level, but not in direct association with each other.

No. 1156: A portion of a spherical black bead, diameter 15 mm., having surfaces marbled in red and white, is of a similar art style (pl. 29, *g*); this specimen was recovered at House-site B (warehouse).

No. 814: Portion of a spherical bead, diameter 14 mm., having a pale-blue paste, and spiral white band, extending from the "equator" to one end of the bead (pl. 29, *e*).

Nos. 54, 70: Twenty-six spherical, dark-blue, translucent beads, diameters 7 to 9 mm.

Nos. 69, 70, 78A, 190, 191: Spherical opaque white beads, diameters 8 to 11 mm., only 3 specimens remaining unbroken; numerous fragments of similar large white beads were obtained, and the fact suggests that this variety was specially liable to breakage in handling.

No. 78: A similar specimen is buff-tan in color, possibly imperfectly fused frit or paste.

No. 61: Opaque white ovoid bead ("pigeon egg" or olive-pit shape); diameter 16 mm., length 26 mm. (pl. 29, *f*). Nos. 36, 56, 190: Five smaller similar specimens, diameters 6 to 8 mm., lengths 11 to 13 mm. (pl. 29, *h*). One (No. 56) has hand decoration, a pale buff spiral line, extending from one end of the bead to the other.

Nos. 70, 71, 190: Twelve near-cylindrical opaque white beads (sometimes retaining a high gloss, others with a "stony" surface texture), somewhat variable in shape and dimensions; diameters 6 to 9 mm., lengths 5 to 8 mm.

Nos. 41, 43, 49, 63, 72, 73, 77, 189: Approximately 1,232 specimens of seed beads of a white color were obtained; some of these are now a buff-tan color, and these may have been from batches of inferior frit, or have been altered by chemical action while lying in the earth. The sizes of these small beads vary from 1.5 to 4.0 mm., and the entire group tends to fall into 3 subgroups (1.5 to 2.0 mm.; 2.0 to 2.5 mm.; and 2.5 to 3.5 mm.) (cf. Smith, 1953).

Nos. 42, 45, 46, 48, 59, 65, 67, 188: Approximately 1,038 blue seed beads were obtained (some of light blue, probably as a result of chemical action), of sizes comparable to the preceding. As has been noted elsewhere, white and blue seed beads appear to have been particularly in demand in the Indian trade of the upper Missouri region.

No. 75: Approximately 55 specimens of translucent blue seed beads, diameter 1.5 to 2.0 mm. only, one of the smallest varieties of beads in the present collection.

Nos. 38, 39, 40, 58, 76, 177, 188: Approximately 507 opaque red seed beads (many now pinkish), of sizes comparable to the preceding.

Nos. 44, 57, 68: Approximately 142 greenish seed beads (fragile, and of inferior quality), similar in size.

Nos. 57, 68: Approximately 92 black seed beads, of similar sizes.

No. 74: Eleven colorless seed beads (only), 1.5 to 2.5 mm. in diameter, one of the rarest varieties in the collection.

Tacks.—No. 1059: Seven brass, round-head tacks, diameter ca. $\frac{1}{4}$ inch (pl. 28, *b-f*). Such tacks were frequently used for ornamenting gunstocks and other wooden articles, and hence were a trade commodity. Thus at Fort Union, in 1851, with other trade goods, 1½ M [thousand] brass tacks were inventoried, apparently at a retail value of 90 cents per thousand (McDonnell, 1940, p. 211). Specimens similar to these were obtained at the site of Fort Berthold II (Smith, MS.).

Shells, ornamental.—No. 35: Four fragmentary specimens of native dentalia (pl. 29, *a*). Other specimens were obtained at Fort Berthold II (Smith, MS.). Such ornamental shells were obtained by peoples of the upper Missouri by trade with other native peoples, as well as with Whites. Nos. 8, 179, 180, 1127: Six fragments of abalone (*Haliotis*) shell, another Pacific coastal variety of importance in the trade in the interior. The largest specimen (No. 179), 52 mm. in length, has been notched near the narrower end, for suspension (pl. 28, *k*).

Patent medicines.—No. 622: Fragments of a clear glass bottle, with portions of the legend), originally containing "F. Brown's Essence of Jamaica Ginger,

a

Philad.", as is known from an identical complete specimen found at the site of Fort Berthold II (Smith, MS.). Frederick Brown, chemist and druggist of Philadelphia, began in business in 1823; from 1891 until 1920 the business was conducted as Brown and Company. Essence of Jamaica ginger is an alcoholic extract, intended for flavoring purposes. No. 1169: Fragment of the side of a flat clear greenish-glass bottle, bearing in a panel the name "Davis"; identical with a complete specimen of this container found at Fort Berthold II, which also carries the remainder of the legend: "Vegetable Pain Killer." No. 1166: The base only of a small flat bottle of clear greenish glass, two-mold blown, probably for patent medicine.

SUBSISTENCE

Food containers, metal.—Several lots, including tinned-iron food containers, of various sizes, apparently largely cylindrical, were obtained. Examples are as follows: No. 597, flattened, showing style of crimping at the margins; Nos. 389, 415, 573, 598, 632: ends of containers, ribbed, crimped, and sometimes soldered, which were cut away in opening the originals; Nos. 389, 598: measure $3\frac{1}{4}$ inches and $3\frac{1}{2}$ inches in diameter. Covers (separate): No. 574: $3\frac{1}{4}$ inches diameter; No. 125: 3 inches diameter, both of shallow depth. No clues were seen to specific food varieties represented.

Condiment jar (?).—No. 1220: Clear glass jar (probably two-mold manufacture), probably for pickles or sauce, having flat panels on the four sides of the body; diameter of base (round) $2\frac{1}{4}$ inches; height not obtainable (pl. 25, *h*). One of the side panels still retains a part of the original lettering: "C . . .," probably a part of a manufacturer's mark.

Wine bottles.—No. 1164: Clear dark-green glass seal only, from a wine bottle of the same tint, bearing the legend in relief, in an oval: "St. Julien/[grape clusters on a branch]/Medoc" (pl. 26, *i*). Médoc is a famous wine-producing region in the Department of Gironde, France.

Whiskey flasks.—No. 722: Fragment of the side of a clear greenish glass flask, with the spread eagle (head to left), probably from a quart-size bottle (pl. 25, *i*). Fragments of flasks of other designs, such as the "violin-shape,"

with scrolls, and types having the "sunburst" motif, are also present (cf. p. 136); one, No. 473, still retains the legend "Old Rye" (pl. 25, j).

Fruit pits.—No. 1128: Peach pit. Nos. 11, 1129: Pits of native fruits, probably including wild plum and chokecherry.

Animal bone (food-refuse).—Native animal varieties, represented here by various lots of fragmentary bone, and doubtless contributing their share to the subsistence of the trading post, include *Bison* (or *Bos*, beef), deer or antelope, jackrabbit, and cottontail. One domesticated animal, the hog, is also represented, though it is probable that hogs would not have been introduced here until the later period of agriculture and permanent homesteading. (Identifications of these and other bone materials were made by Dr. Theodore E. White, National Park Service, formerly of the Missouri Basin Project.)

ARTIFACTS OF NATIVE SIGNIFICANCE

Hammerstones.—No. 160: Ovoid, yellow crystalline quartz pebble (broken), having deep pitting on edges, as a result of use; probably broken in use; maximum length 102 mm.; maximum thickness 45 mm. (pl. 30, m). No. 159: Ovoid, naturally smooth fine-grain granite pebble ("mano" shape), maximum length 126 mm.; thickness 40 mm., having slight pitting at extremities, as a result of use; may also have been used as a grinding stone (pl. 30, l). No. 585: Ovoid granitic pebble, maximum length 52 mm.; maximum thickness 34 mm., with slight pitting at extremities (pl. 30, k). No. 1119: Ovoid, slightly flat slaty pebble; maximum length 71 mm.; maximum thickness 16 mm.; the entire circumference at the edges is pitted (pl. 30, j).

Point (stone).—No. 1109: Small triangular grayish flint point; height 22 mm., fire damaged.

Knife (stone).—No. 4: Small fragment of milky plate chalcedony knife, with one flaked edge.

Pottery.—No. 538: Six small body sherds, thin ware, incised decoration. Nos. 1/1, 1/2, 157, 158, 582: Five small body sherds, having cord-wrapped paddling or incised decoration. No. 1214: Small plain micaceous rimsherd. No. 1230: Similar rimsherd, except having cord impressions on the lip.

Catlinite objects.—Pipes, tobacco: One (No. 727) has a cylindrical (slightly flaring) bowl, lacking the stem portion; is undecorated but has a tapering, beveled projection opposite the smoker; height of bowl and stem portion 73 mm., exterior diameter of bowl 27 mm. (pl. 30, d). Three fragments of stem portions (Nos. 166, 1136, 1137) of similar pipes, having a flattened surface upon which to rest the pipe. One other bowl fragment (No. 2) is crudely decorated with straight-line engraving (pl. 30, e). Nos. 828, 829, 1132, 1133, 1134, 1138, 1231: Seven additional fragments having similar plain bowls; one is fire damaged after use.

Four fragments of catlinite (Nos. 139, 167, 830, 831) are portions of the tapered, beveled projections of pipe bowls opposite to the smoker; two of these have been ground smooth on the broken surface, after breakage; one (No. 830) has been prepared for lead inlay on four sides (pl. 30, f); one is fire damaged after use.

Catlinite objects, products of various native Indian groups who frequented the quarries in southwestern Minnesota, were purchased by White traders at one period for trade with other native groups—an interesting example of cultural exchange (Hayden, 1867, p. 274). Comparable late 19th-century artifacts of catlinite have been found at many excavated sites, such as Like-a-Fishhook Village and Fort Berthold II (Smith, MS.).

One unique specimen of pipe bowl (No. 1135), of catlinite, has a flat, rectangular bowl, for use with a reed stem; height 44 mm., width 27 mm., thickness

13 mm., the base beveled from the two sides; the bowl opening is forward, away from the smoker, and the interior is tapered to meet the stem hole, also tapered, at right angles (pl. 30, *g*). This specimen also has crude fine-line engraving on the side to the left of the smoker (a human figure in half profile), to the right of the smoker (a human face, fullface, with long hair and beard), and toward the smoker (a human figure in profile). The piece may equally well have been made by a White person rather than by an Indian.

Two small catlinite objects (Nos. 1131, 1130), perhaps also products of White men, as leisure-time activities or as pocket pieces, are also present (pl. 30, *h* and *i*). The first, smoothly polished, is pear shaped, and has a maximum dimension of 25 mm. The second is a flattened sphere, maximum diameter 27 mm., engraved with letters: "Pat," "Hat," "Cat," "Dog," "Zie-zie [?]" (perhaps a personal name), "H," and other obscure letters.

A ringlike catlinite object (No. 827), perhaps an ornament, may originally have been a section of the rim of a pipe bowl; this has a crudely cut groove about the circumference, diameter 23.0 mm. Fragments of two partially finished objects (Nos. 168, 586, 1140) are too small to reveal original complete shapes.

Two sawed and polished chunks of catlinite (Nos. 169, 539) were too small or too poor in quality to have been further worked. The presence at this site of fragments of such raw materials suggests that native groups visiting here had themselves frequently visited the quarries for materials, distant approximately 250 miles. The Yankton Dakota traditionally claimed the exclusive right of working these quarries, but other groups considered the quarries common property so far as their exploitation was concerned.

A fragment (No. 161) of typical Sioux quartzite, preserving evidence of having been roughly shaped by pecking and sawing, is also present. This quartzite overlies the true catlinite at the Minnesota quarries.

Bead (shell and metal).—No. 10: Disk-shaped shell bead, diameter 12 mm., thickness 4 mm., having a loop of fine brass wire, probably for suspension as an ear ornament, or on a garment (pl. 29, *b*).

Gaming pieces.—Nos. 1141, 1142, 1160: Three gaming pieces, fashioned of glazed earthenwares, doubtless by native players, and having ground or chipped edges (pl. 30, *a, c, b*). The first is oval, made of a sherd of buff and brown queensware, 22 mm. in length; the second is also oval, of whiteware, having a floral design, hand decorated, length 17 mm. The third is round, of brown and gray-white queensware, diameter 14 mm. Comparable specimens were obtained at the site of Fort Berthold II (Smith, MS.). The use of such pieces in native games of the plum-stone game type, is well known from at least one contemporary authority (Denig, 1930, p. 567, and pl. 72).

Concretion.—No. 1120: Spherical natural concretion (probably iron-bearing), diameter ca. 28 mm. The specimen does not appear to have been modified in any way, but may well have been a personal possession of an Indian visitor to the post, or a pocket piece of one of the traders.

MISCELLANEOUS

Human bone.—No. 1275: Three skull fragments, fire damaged and much weathered, and too small to allow precise identification. These fragments were obtained together with animal bone from cellar A, which after use had been intentionally refilled with random debris, and these fragments may originally have come from a disturbed native burial near the present site, such as site 39ST16, the Breeden Indian Village site, distant no more than a thousand feet, and situated on the first valley terrace. No. 1181A: A fragment of human sacrum, scorched (possibly in recent agricultural operations, as are a number of the animal bones recovered).

Animal remains other than food-refuse bone.—Three animal varieties are represented in fragmentary bone refuse, creatures native to the region but perhaps included only by accident among bone refuse. These are the beaver, the badger (of which a jaw and an occipital fragment remain) and the packrat (of which several bones are present).

As has been mentioned above (p. 127) the articulated skeleton of a young horse was encountered among the random debris in cellar A; the carcass of the colt was presumably disposed of in this fashion merely to remove a nuisance, and during the period of agricultural use of the site. Several bones of dogs were obtained, but it is impossible to determine whether they pertain to the period of the trade (as must have been partly the case) or to that of the farm period. One bone only derived from the skeleton of domestic cat was obtained, presumably from the farm period, though it is known that cats were of importance to traders as well, in earlier periods.

DISCUSSION

Attention may now be drawn to the general significance of the data from excavations at site 39ST217 in the light of the salvage program as a whole, and to the bearing of these data upon the general history of the discovery and first exploitation of the Northern Plains by Whites, preceding permanent settlement by them. This is not the place for comprehensive examination of such topics, but some comment on them is needed if the present data are to be seen in proper perspective.

The primary responsibility of the inter-agency archeological salvage program is the recovery of materials and information concerning aboriginal (particularly precontact) cultures. Only from sites preserving such remains is new knowledge of prehistoric time levels to be hoped for, and it is proper that agencies cooperating in the program should devote less time and effort to sites of historic time levels, either Indian or White. Thus relatively less attention, either prior to, or since the inauguration of the salvage program, has been given to physical remains of former White settlements in the central Dakotas, and for several reasons. This is scarcely surprising, since the region is in many respects even yet little removed from the frontier of permanent settlement.

It is little more than 70 years since part of this region west of the Missouri River and adjacent to it was first opened for White settlement, whereas Indian reservations (the Cheyenne River and Standing Rock Reservations, both for the Sioux, who as recently as 1890 were openly hostile) still occupy all of the west bank above the Cheyenne River and below the Cannonball. This region is today the home of a large Indian population, whose economy differs in many ways from that of rural Whites residing in the two Dakotas. Furthermore, even today the scanty west-river White population is engaged primarily in cattle raising, and communities of more than a few hundred persons are extremely rare. The sparsity of population

in this area is well illustrated by the case of the former Armstrong County (now consolidated with Dewey), which had an area of more than 600 square miles, but for which only 52 persons were counted at the census of 1950. Even on the east side of the Missouri, as well, where agriculture is of relatively greater importance, White settlement has never been more than sparse, and here there are several true "ghost towns." There are in the area but two communities having as many as 3,000 persons; these are Mobridge, a division point on the only transcontinental railroad crossing the region (served also by a transcontinental highway), and the capital of the state, Pierre, which in 1950 had a population of less than 6,000, though additions to this figure, in new residents, have accrued from construction activities at the great Oahe Dam.

It is hardly to be wondered at, therefore, that despite their historical importance to a very large region, physical remains from the previous period of the fur trade and hide trade (concluded less than a century ago) have yet received scant attention from students. The State of South Dakota (admitted to the Union, together with North Dakota, as recently as 1889) has in recent years conducted an active program of marking certain sites of historical interest, along highway easements. In a few instances in the present district (as at the site of Fort Pierre Chouteau, mentioned previously) more permanent markers of stone or metal have also been erected. Sites of historical interest here—the number of which is not inconsiderable, as is revealed by the recently published report (Mattison, 1954)—had, however, not received archeological attention, so far as is known, and the present undertaking is thus itself a pioneer effort. In North Dakota, it should be recalled, numerous areas had been set aside because of their historical interest, as State parks; among these may be mentioned the site of Fort Rice, where limited reconstructions were made some years ago. Apart from excavation of parts of the site of Slant Indian Village (32MO26), an earth-lodge village near the Heart River, found recently abandoned by Lewis and Clark in 1804, few actual excavations had been accomplished prior to the present salvage program.

Archeological investigations of historic sites elsewhere in the Missouri Basin reservoir areas have now, however, been made by the Missouri Basin Project and agencies cooperating in the salvage program. Among sites of this kind are some in south-central South Dakota and northwestern North Dakota, below and above the Oahe Reservoir area. Among those that have been studied, with at least partial excavation, are the trading centers known as Kipp's Post (32MN1), ca. 1826–29, and Fort Berthold I and II (32ML2), 1845 to ca. 1890, and the military establishment of Fort Stevenson (32MLI), 1867–1883—all within the Garrison Reservoir area, North

Dakota—and Fort Lower Brulé (39LM53), a shortlived military post of 1870 in the Fort Randall Reservoir area, South Dakota (Roberts, 1952, pp. 377-379; also Mills, 1960, this volume). Thus some previous experience in the excavation of comparable sites of White origin was available for orientation when the present work was begun.

The choice of any site for actual excavation or sampling has, of course, necessarily been governed, first, by the consideration of whether the site is ultimately to be inundated or destroyed by construction activities and, secondly, by the probable significance of the surviving physical remains. Ideally, the archeologist seeks for a site for excavation that promises informative data and object materials, or offers hope of answers to specific questions in the prehistory or history of any region, rather than having to consider arbitrary (and, from the standpoint of historical use of the areas by man, artificial) boundaries such as maximum pool elevations.

For various reasons it has not always been possible to attack definable logical problems in reservoir areas, such as the physical histories of trading establishments, whose sites dot the banks of the Missouri, or even of the several military posts that succeeded to a part of the role of the trading posts. Thus the sites of the great capitals of the trade on the upper river, posts that once dominated all of the Northern Plains such as Fort Union and Fort Pierre Chouteau, remain untouched, together with the more important military installations of the late 19th century such as Forts Sully, Bennett, Rice, and Buford, where rewards in new information will doubtless be noteworthy, when systematic excavation becomes possible. In some respects, this is a fortunate circumstance, since experience and knowledge are slowly being acquired, and methods of excavation and study improved, until such time as these irreplaceable sources of knowledge of earlier western history are at last opened. Fortunately, also, a few of such sites have already been set aside as historical reserves (e.g., Forts Union, Clark, and others) by the State of North Dakota.

Other logical (rather than arbitrary) problems, of a scientific or historical character, are suggested by experience thus far gained in the investigation of sites of earlier White occupation and settlement, as well as by that from numerous investigations at sites of native origin, of historic time levels (such as Like-a-Fishhook Village, adjacent to Fort Berthold I and II, which were dependent upon it). Thus it would be of importance to know more than is now known concerning the true nature of the material culture of the Indian frontier in the region (ca. 1812-1880), which differed from that of the military frontier (ca. 1855-1895), or that of permanent White settlement (ca. 1880 to date). Materials, some of them now from archeological work, others in contemporary documents of various kinds

fortunately preserved (such as trading-post inventories, the business records of the day) are available for study of such topics, and further new data will be forthcoming with more extensive exploration of sites, and of archival and manuscript collections.

Something more should be added concerning the relationship of studies of this kind, of historic sites of White origin, to studies of sites of native history in the Northern Plains—the latter of increasing interest to students, with the practical disappearance of native culture and with river-basin salvage operations in the Missouri basin producing whole new groups of data for study of native culture history, as well as for comparative cross-cultural studies other than historical. Direct relationship linking sites of White origin with prehistoric native sites is, of course, ordinarily lacking (though reoccupation of numerous prehistoric sites during the historic period, by both Indian and White groups, is known), but with the beginnings of contact between native and White persons in the area, sites such as those of continued trading activities take on special significance because they are amenable to archeological study.

At the outset of the trade, the free trader, usually solitary (and sometimes himself of mixed blood) often resided with native groups, exerting primary cultural influence as well as frequently intermarrying. These individual traders, with the passage of time, tended to disappear, to be replaced by small groups of traders in semipermanent "houses" (probably of modest size); these houses in turn were replaced by true "posts," usually stockaded and frequently called forts, which accommodated still larger groups of White persons engaged in trade, and eventually had somewhat formal organization of personnel, as well as rather highly organized systems of transport of both goods bartered and furs, hides, and other commodities received. At the height of the trade, operations assumed much of the complexity of any modern commercial system.

The increasing scope and complexity of these commercial establishments is probably directly related to the increasing dependence of native groups upon such alien residents, however permanent. By the 1830's and 1840's in the Dakota region, the trading centers had become major sources of influence upon native culture, even attracting native settlements to their immediate vicinity in some notable instances, settlements that often outlived the posts themselves. Thus the data of the fur trade and Indian trade conducted by Whites are far from merely incidental to native history proper, but fully worthy of study, especially from this point of view, for the light they may shed upon native affairs, quite apart from their independent importance as embryonic White colonies. Native affairs during these years are, indeed, otherwise poorly recorded (despite their crucial significance), except in special spheres, such as that of formal governmental

relationships following the ratification of numerous separate treaties and the establishment of agencies, at first often with nonresident agents, on a tribal basis. The trade, in fact, is one of the most persistent and pervasive influences upon native life in the region, over a period of nearly two centuries, and the focal points of the trade are the posts themselves, at the sites of which material remains may be found for archeological study. Few studies by ethnographers or historians thus far offer detailed analyses of the explicit effects of White contact upon native cultures in this region, though a knowledge of these effects is basic to any understanding of culture change among these peoples. Archeological investigations may be expected to yield new materials for study of these sectors of anthropology, when the fieldwork has been systematically undertaken. Efforts thus far made suggest little more than potential contributions to knowledge through careful, localized studies, coupled with broader comparative studies, when these become feasible.

Little can here be said concerning the significance of specific data from excavations at the site of Fort Pierre II. It is apparent above that, even beyond the almost complete lack of information concerning less durable goods once used at the post, as well as larger, more highly prized, or actually more valuable objects such as firearms or coins, certain spheres of activity are poorly represented in either tangible remains or documentary records. Thus, as remarked p. 112), there are few clues to the relative importance in the operation of the post of work animals such as oxen, mules, or horses, or of cultivation of the soil, as in kitchen gardens. Yet by the year 1859, beasts of burden must have played a more important role in the supply and transport of remote trading establishments than they had, perhaps, 20 or 30 years previous. And little of the actual subsistence of such posts is now known, apart from the probability that from the outset they were, perforce, largely self-sufficient during most of the year, and certainly during the winter season.

The archeological accomplishments of the present undertaking may be briefly summarized. They include the following: (1) the definition and delimitation of the complete outline of a trading post, including limited data on construction (materials, design, and construction methods) despite long agricultural use of the site subsequent to its abandonment for trade; (2) the definition of two building sites of the enclosure (probably those of a dwelling and a warehouse) and the obtaining of limited architectural details of these structures; (3) the systematic collection of a comprehensive (if relatively small) group of informative specimens, including construction materials, which illustrate the nature of the trade itself, subsistence, and shelter and domestic arrangements, and reveal specific localized facts on life and customs of the mid-19th century frontier (a subject even yet

little known in detail—perhaps less well known, in fact, than native life itself, as a result of long study of the latter topic by many interested students); and (4) the identification, from material evidences and limited documentary sources, of the nature of the site, i. e., that of a trading post, specifically Fort Pierre II, used ca. 1858–1863.

Most of these data, obtained from excavations and related studies, are new. They may perhaps serve as “control data” for future studies of sites of other trading posts, which may have greater individual historic significance or may be more fully preserved. An example is the site of Fort Pierre Chouteau itself, an important commercial establishment, serving as the center of a vast area during an important period in the development and decline of the fur trade and hide trade with the Indian (itself a major historical topic in the earlier history of the West)—a site occupied for a longer time than most such posts, with the possible exception of Fort Union, its equivalent for the trade of the upper parts of the Missouri valley.

RECOMMENDATIONS

Further studies of several kinds are suggested by the results here described of excavations made at the site of a trading post of the past century in central South Dakota, one which had but a brief existence, though perhaps a larger role in its own critical period than has been appreciated by historians. Fort Pierre II was the successor of a great departmental headquarters of the trade at Fort Pierre Chouteau, and as the major trade center of a vast region during a period when the trade was slowly expiring and native-White relations rapidly deteriorating, its full story would complement and complete existing knowledge of its great predecessor, as well as help to place the somewhat more romantic previous establishment in better historical perspective.

It may be reiterated that, even yet, little is known in accurate detail of the design or construction of the numerous earlier trading establishments of the Missouri Basin. Although such posts were in existence, providing specially designed and specially built facilities for commerce and, without fail, for due security to life and property, at least as early as the year 1724, when the explorer Bourgmont built Fort Orléans on the lower Missouri (near the mouth of the Grand River, in the State of Missouri), *not one* original structure remains above ground today, from which their physical character can be directly judged. And there is as yet but one competent reconstruction in the entire basin—Fort Osage, near Independence, Mo. Closely comparable reconstructions and “restorations” maintained for public use, of course, exist elsewhere, but for some of these, it must be said, little or no research, either in the ground or in documentary sources,

was ever accomplished. As sources of authentic history these attempts sometimes approach historical fiction, and are not unlike the sometimes inappropriate or inaccurate creations of the motion picture studio, which survive only on film.

These facts suggest that a comprehensive review of surviving documentary evidence (including the pictorial) on the many trading posts would be a first step toward accuracy in understanding them. What, for example, was their customary orientation—if, indeed, they were customarily oriented with compass points? What was their usual size or sizes? Were there more than a few that had a plan other than quadrilateral, such as the three-sided Fort Mandan (comparable despite its essentially military function) or the irregular polygonal Fort Osage (which appears to have been carefully fitted to the peculiar topography of its site)? Where specializations in the outer lines of the palisades or stockade were present, such as blockhouses and gatehouses, did these features conform to designs familiar on some contemporary pictures and more recent artistic conceptions?

What was the customary location within these enclosures for the housing and feeding of personnel, for storage and trade, and for the accommodation of animals, or was there, in fact, little pattern in the plans of such posts? Not least in importance would be a review of construction methods employed (where these could be determined), with attention to orthodox techniques and methods in the history of carpentry and masonry. Finally, the student of such topics would wish to know something of the efficiency and suitability of the constructions, in view of the purposes for which they were designed. Such questions—for which there are, apparently, no ready answers—suggest that here are topics for legitimate historical inquiry, employing such documentation as can be found, into “lost” American architectural history. Once such data have been collected and analyzed, further additions to knowledge could undoubtedly be made from time to time from actual site excavations, in cases in which the sites can be precisely identified.

It is probable that an outline of such lost architectural history would be an addition to knowledge not unworthy of attention, in view of the historic role of the commercial trading post in the first period of exploitation of the natural resources of the West. In the related sphere of the history of the intermingling of peoples of differing cultural origins—American Indian groups and alien Whites, the latter themselves of various national and cultural affiliations—further knowledge of the setting in which some of the initial culture contacts occurred would seem to be an important scholarly endeavor. It is sometimes said that the historian is more often concerned with the person or persons, and the event or events, than with the place or places in which historic events have occurred, and it seems appropriate here to draw

attention again to material aspects of the more recent past, toward an understanding of which the archeologist and the historian can still make contributions.

The excavations here reported for site 39ST217 are the first systematic investigations of any site of White origin in the area of the Oahe Reservoir, and much further work remains to be accomplished. Elsewhere in the drainage of the Missouri River, some sites of White origin have received special attention, including both limited documentary research and systematic excavation or testing. (Yet few of the sites thus far studied in any detail have received adequate *prior* documentary investigation, for several reasons.)

Several of the sites to which attention has been given are military rather than commercial in origin, and only a few are those of trading posts, from which directly comparable materials and data are available. Among this small group, work at sites 32ML2 (Forts Berthold I and II) and 32MN1 (Kipp's Post), both in North Dakota, has provided very limited comparative data, not yet published (Smith, MS., and Smith and Woolworth, MS.). Another site of the kind, located in south-central South Dakota within the Fort Randall Reservoir area, is site 39LM57 (Fort Lookout II), where limited excavations were made and have been reported on by Miller (1960), this volume.

It will be apparent that field investigations thus far accomplished at such commercial sites in the drainage are severely limited in number, are separated by considerable distances, and pertain to various parts of the past century. Any broad generalizations from such limited documentary and field data (even if they could be made) would be premature, and further facts are needed, particularly from selected sites likely to produce data useful for comparative study. In short, planned field research is now called for, to expand and extend the limited data now at hand, if real progress is to be made and numerous sites now endangered are to be properly recorded. Such plans would be laid without regard to the artificial geographic limitations of the river-basin salvage program, but with regard to known historical facts instead. This is particularly desirable in view of the fact that some of the key sites (Forts Union, Clark, and Pierre Chouteau) are not within areas in which salvage operations are required or permissible.

Such planned fieldwork, involving sites of White origin and of commercial (or other) character, would take account of various factors important in the history of the trade in the West, particularly temporal and geographic factors. Thus investigations are indicated for sites of posts of the early 19th century, as well as of the late 18th, together with those of later provenience, and the sites selected might well be chosen from strategic different parts of the Missouri valley—e.g., below the mouth of the Kansas River, between the Kansas and the Big Sioux, between the Big Sioux and the Yellowstone, and between

the Yellowstone and the Three Forks, in Montana.⁴ Proper attention (as has not always been the case in the past) should be given to adequate documentary investigation, wherever this may lead, *in advance* of excavation. The archeologist responsible may sometimes make important additions to knowledge, lacking the guides of thorough documentary research; he is, however, much more likely to make such additions if the indoor work has been completed in advance, preferably under his own eyes.

Attention should be given also, in such planning, to selecting sites for excavation and study that may afford data on operations and activities of both the dominant firm, the American Fur Company (and its successor, the P. Chouteau, Jr., and Company), and the numerous and frequently short-lived opposition firms (e.g., the Columbia; the Harvey, Primeau; and the Papin, Cerré groups), whose activities and operations are even less well recorded in surviving documentary records. And there are other lesser considerations in any such broad campaign of fieldwork; a case in point is that of sites not now formally protected (as are Forts Union and Clark, now in public ownership), but subject to fortuitous natural and manmade destruction.

Any such broadly planned investigation of historic sites, including coordinated excavations and documentary research, even for a limited number of sites, remains to be worked out. The increasingly greater public interest in and awareness of American backgrounds (not least of all, those of the recently settled West), and the increasing use of existing resources of varying quality, such as private and public museums, historic houses, and historical parks and monuments, are noteworthy phenomena. In proper recognition of the value of surviving original and authentic source materials of a physical nature, much more exploitation of them seems justified. The unexcavated site may have sentimental values; the excavated site, properly studied, may provide real additions to knowledge.

Such work could be accomplished through the several State agencies most immediately concerned (perhaps with public or private assistance), particularly State historical bodies and park authorities, which may be able from time to time to sponsor or themselves undertake original site studies in their own areas of special interest. Some efforts of the kind have indeed already been made by such State agencies, though tentatively and hesitatingly, and not perhaps in any instance as a result of coordinated plans for any State, or in proper relation to work in other States. It seems probable that progress could be made

⁴ It should be mentioned that excavations have been underway for some years at the site of the U.S. military factory, Fort Osage (1808-27), which supplied goods to the Indians of the region of the lower Missouri, but results of this work have not yet appeared in print. These excavations appear to have been subordinated to reconstruction of the post, still underway, and additions to general knowledge from the archeological work may thereby have gone unrecognized.

with the assistance of various new groups, such as that of the Committee on Historic Sites of the Mississippi Valley Historical Association, a committee primarily of academic historians and representatives of State historical societies, with various regional interests, which has for some years served as advisors for the National Park Service (Region Two), and with the counsel of the National Trust for Historic Preservation.

With the inevitable progress of knowledge of the history of the West, and the increasingly great time interval separating modern times and the first permanent settlements, and with more concerted study of and attention to historic and prehistoric resources of all kinds (a nonrenewable stockpile), it is not difficult to foresee something approaching the planned work here suggested, crossing artificial State lines and properly coordinated with other endeavors elsewhere, as well as balanced with other spheres of interest than original White exploration and settlement alone. Some little thought has already been given to such planned efforts for areas of Colonial settlement in the New World, and comparable endeavors in Western frontier areas will in time be coordinated with them. At the nearer end of the time scale, it can be said that almost nothing is as yet available from actual archeological study of first permanent settlements in the West, those succeeding to the major role once occupied by the commercial trading post, or to the beginnings of modern industry itself. Any such extensions of knowledge of the past are bound to have genuine value, when the work has been done; it is, however, improbable that they will be made without coordinated planning on the part of public and private individuals and groups.

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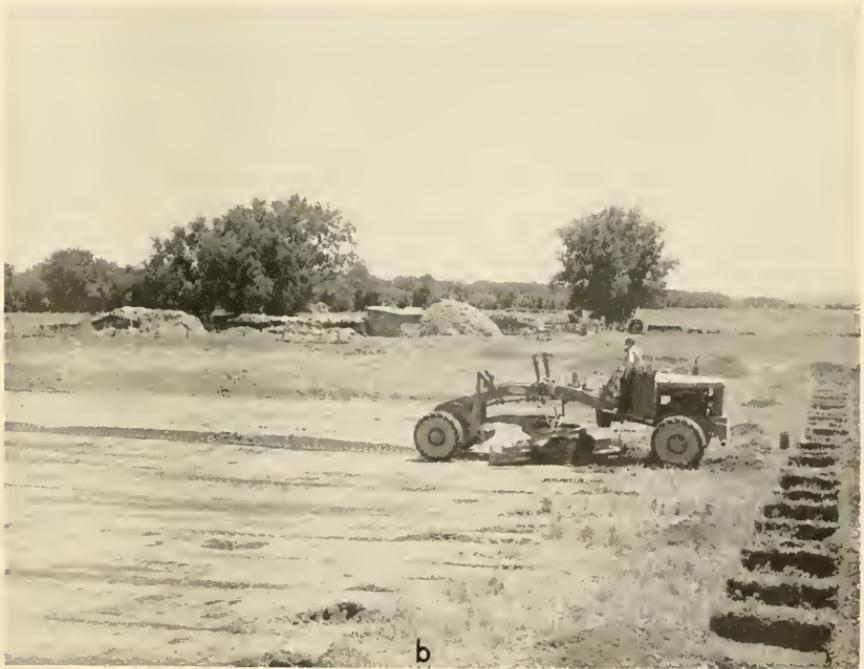
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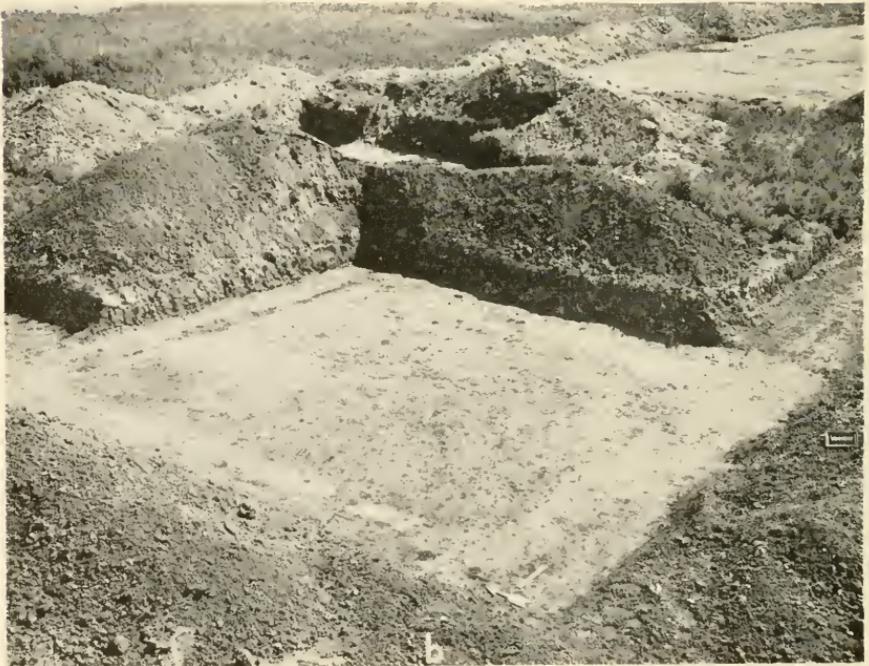
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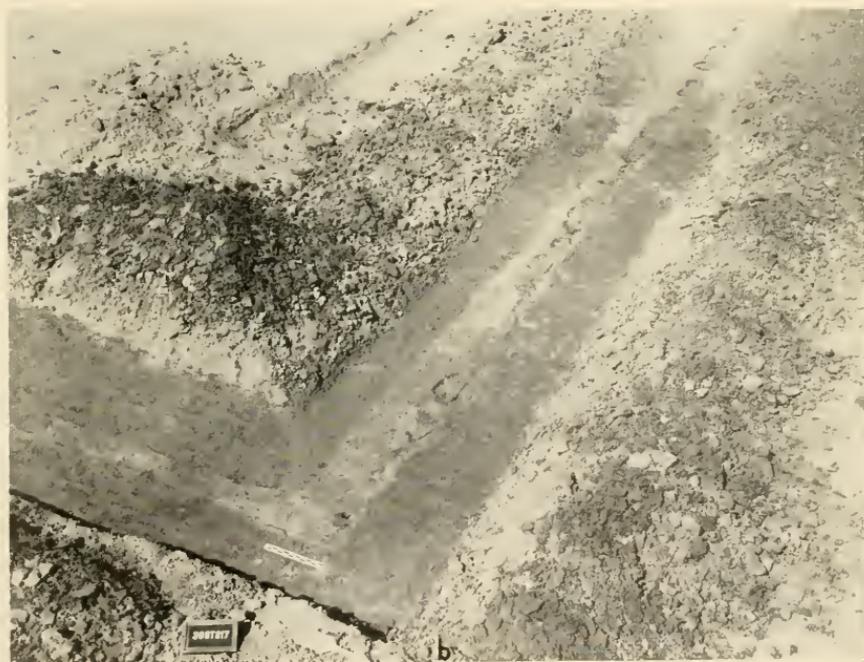
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a, Site of Fort Pierre II (39ST217) prior to excavation; cellar pit right center; farm buildings rear. *b*, Blading operations; exploratory trenches (right) mark west stockade line.



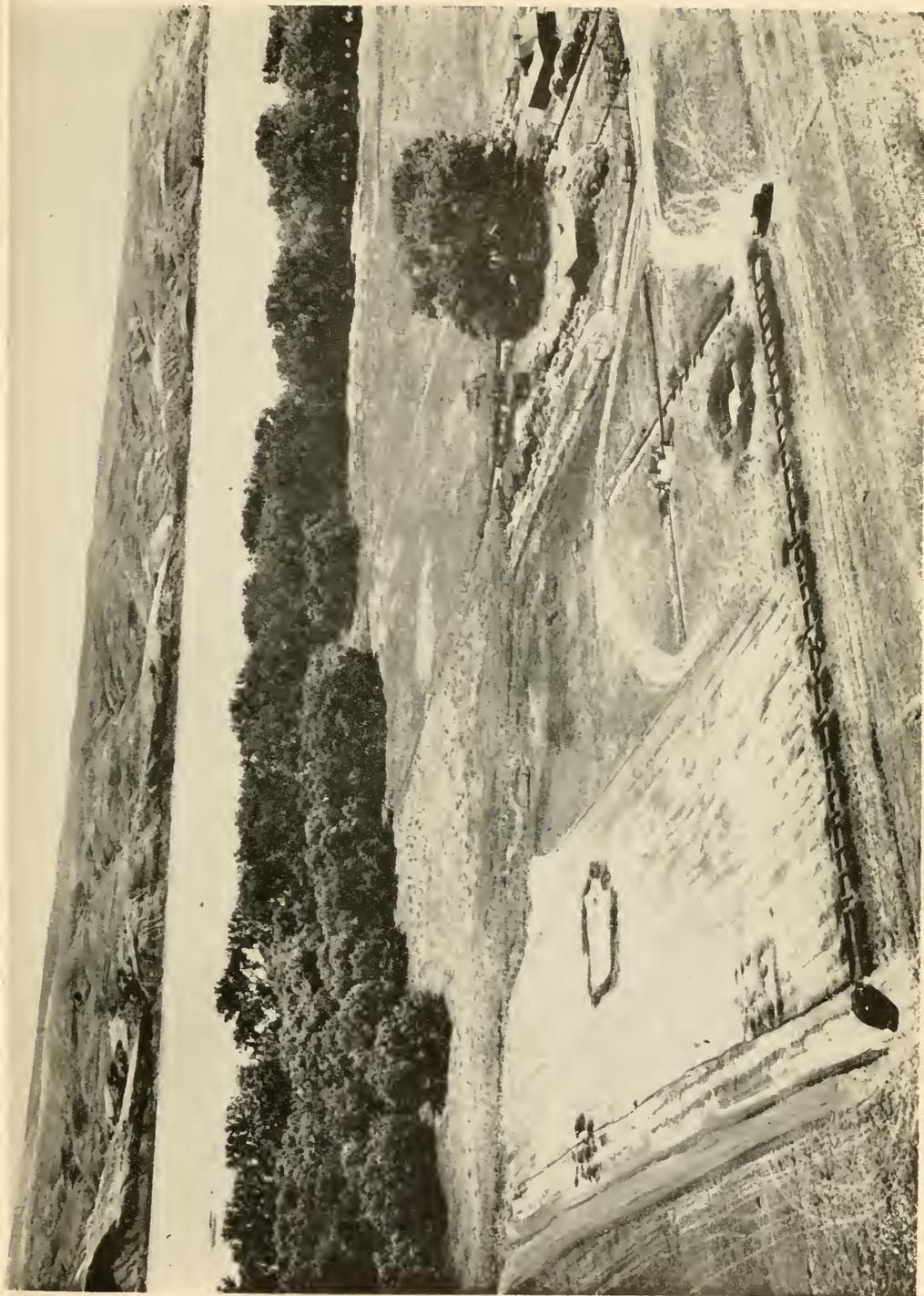
a, Adobe brick chimney base, House site A. *b*, Enclosure (probable site of blockhouse) at southwest angle of stockade.



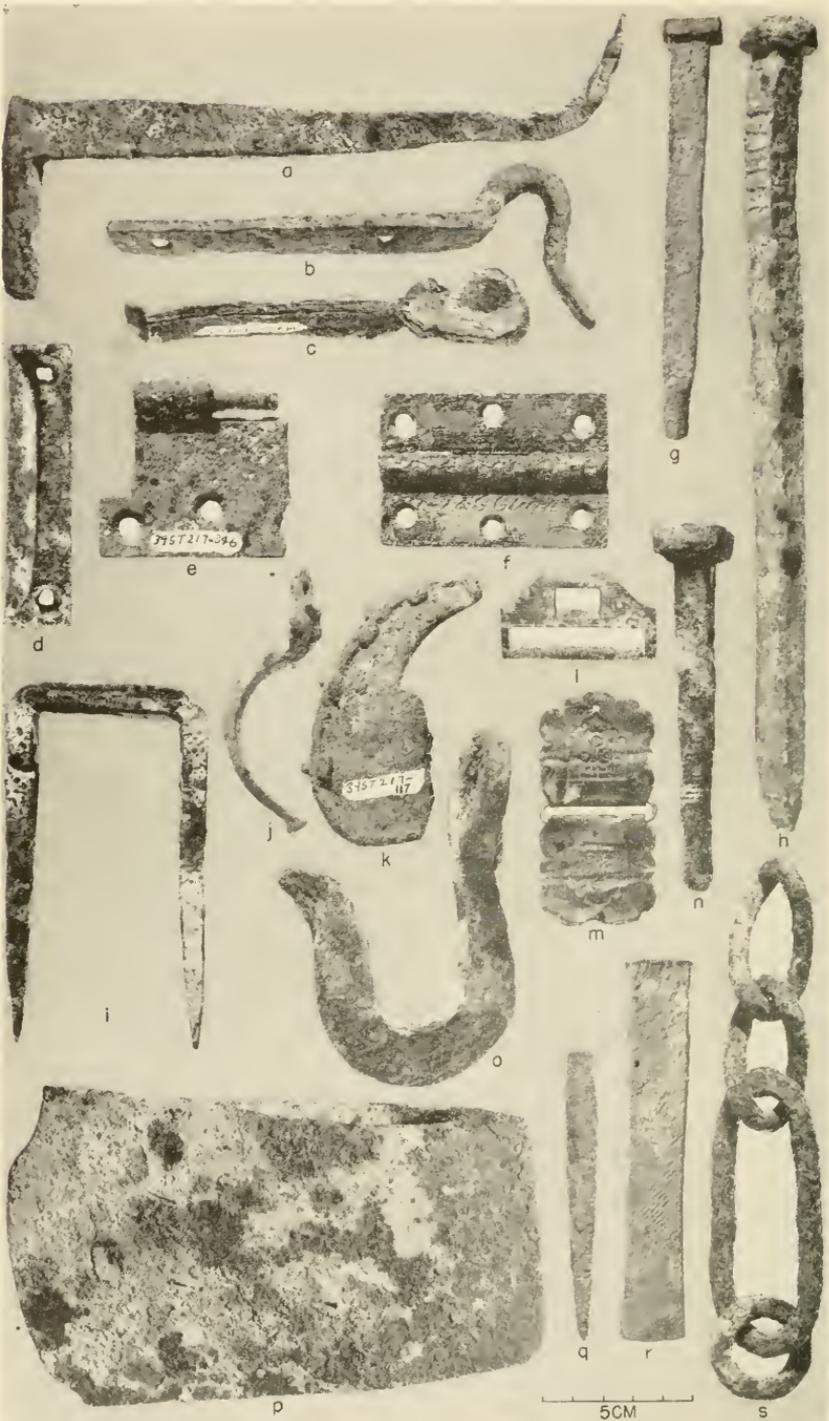
a, Detail of north stockade trench near midpoint. *b*, Northeast angle of stockade trench.



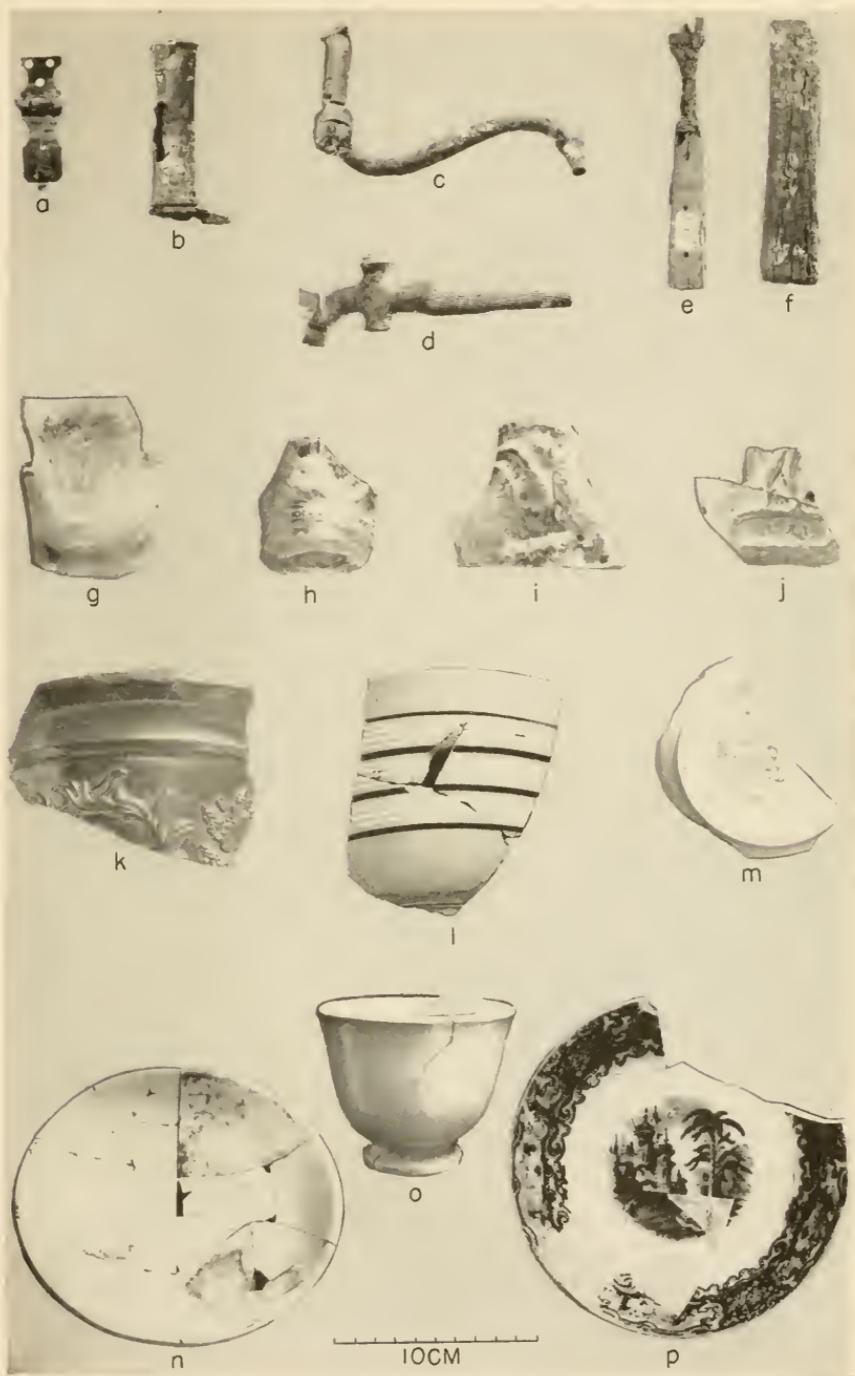
a, House site B, view west. *b*, East fireplace, House site B.



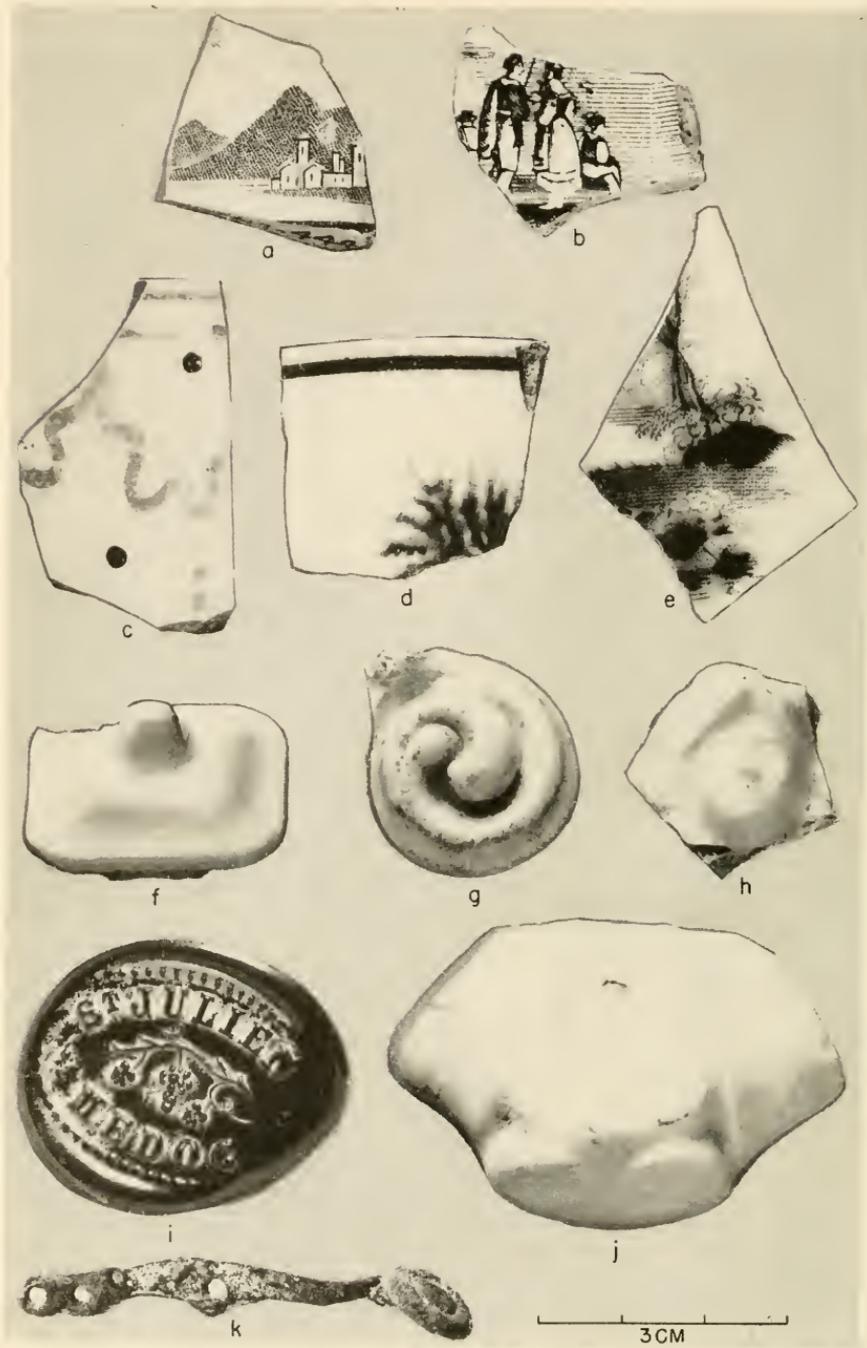
Aerial view, southeast, of site under excavation. (U.S. Army Corps of Engineers photograph.)



Building hardware; tools and implements; harness and farriery; wagon parts.



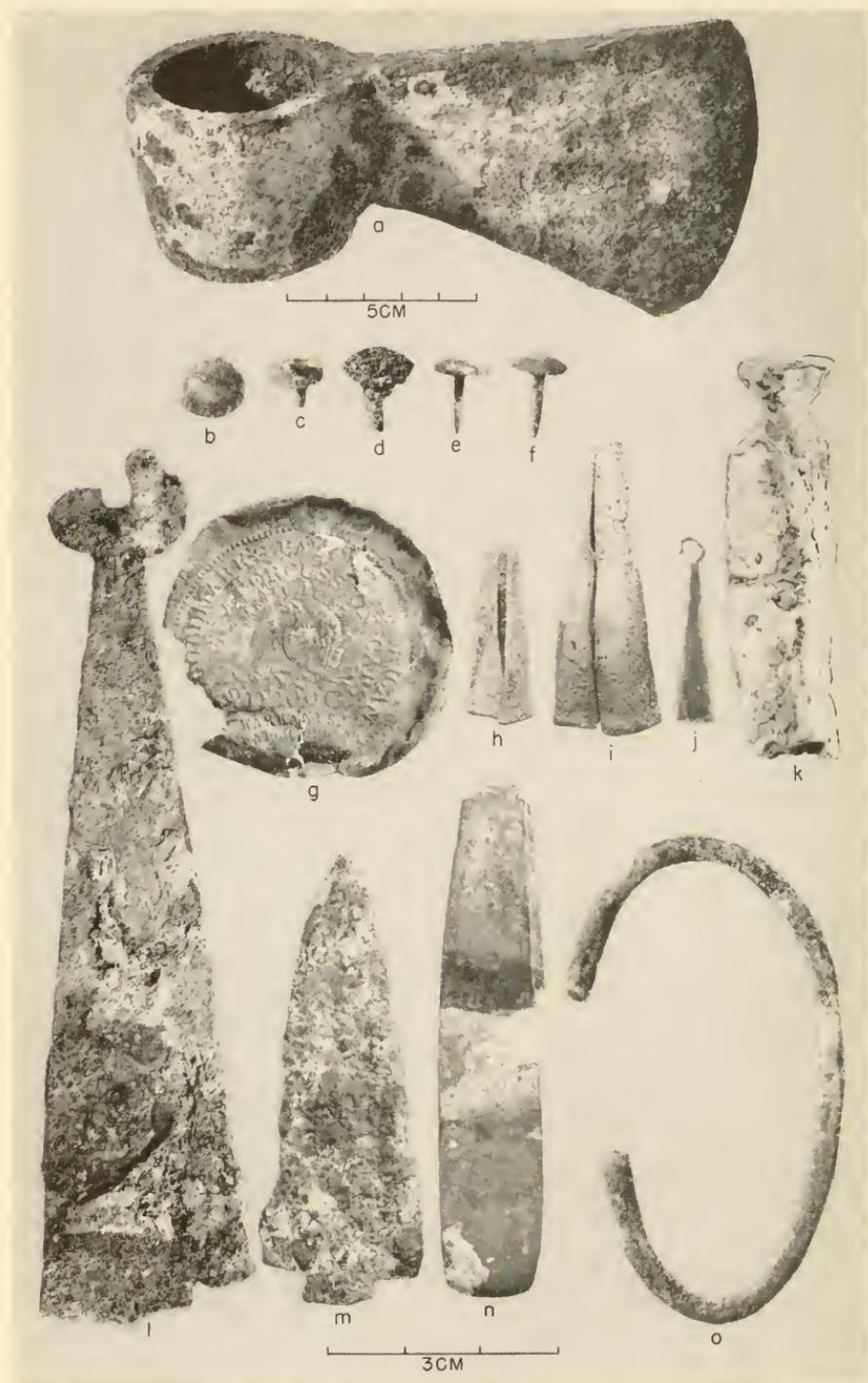
Household articles.



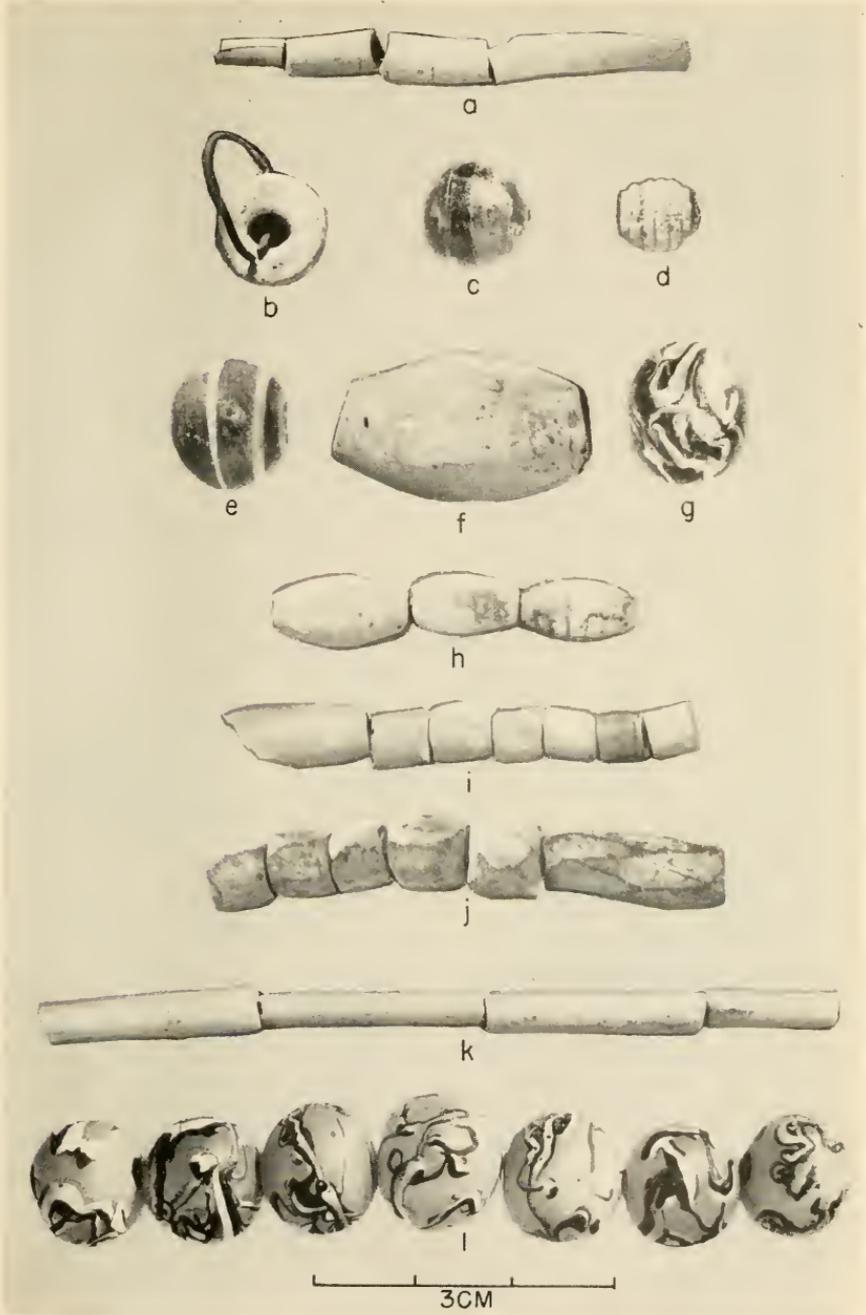
Household articles.



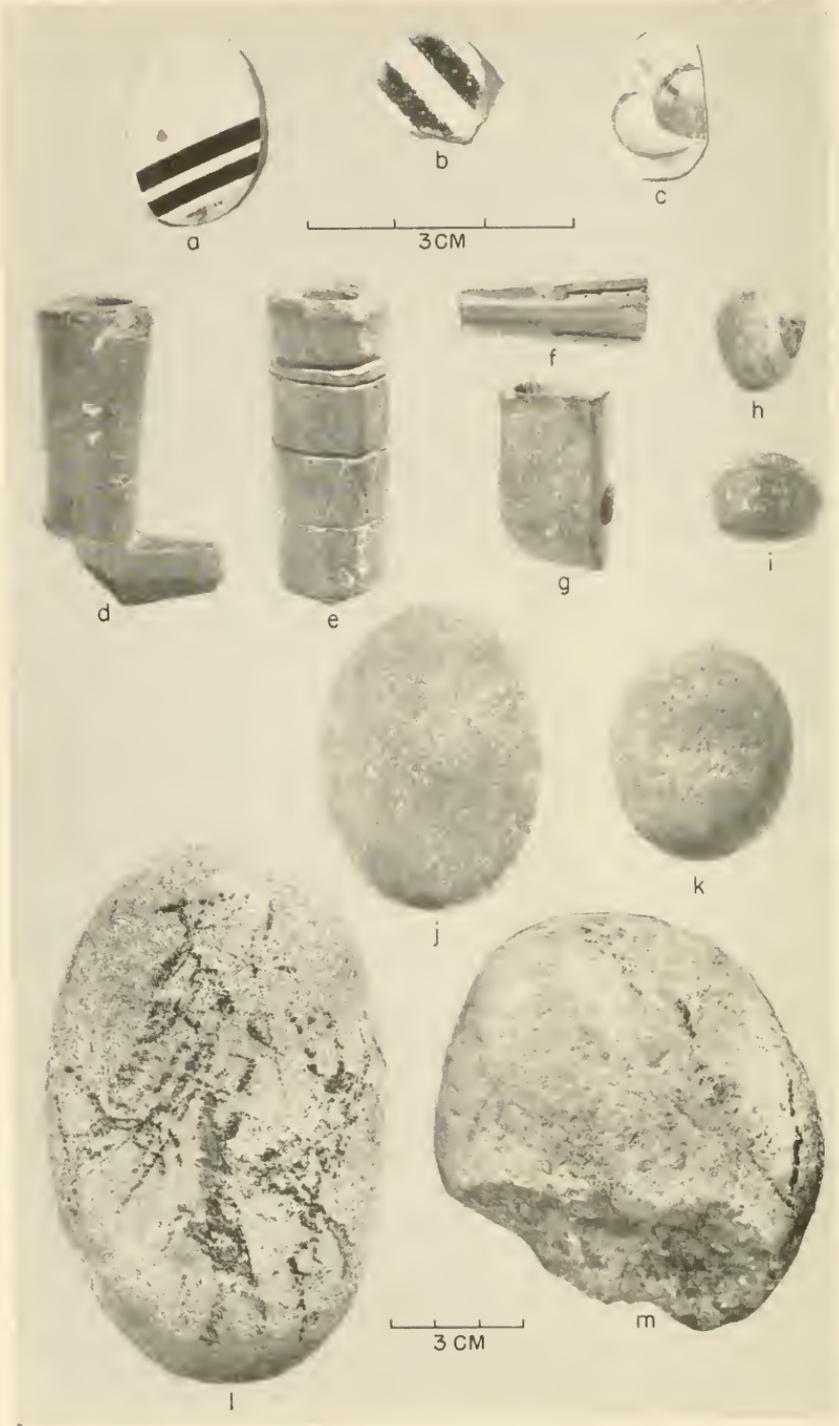
Military and personal articles.



Trade goods.



Trade goods.



Artifacts of native significance.