Excavations at Fort Atkinson, Nebraska: A Preliminary Report

(Article begins on page 2 below.)

This article is copyrighted by History Nebraska (formerly the Nebraska State Historical Society). You may download it for your personal use. For permission to re-use materials, or for photo ordering information, see: https://history.nebraska.gov/publications/re-use-nshs-materials

Learn more about Nebraska History (and search articles) here: https://history.nebraska.gov/publications/nebraska-history-magazine

History Nebraska members receive four issues of Nebraska History annually: https://history.nebraska.gov/get-involved/membership

Full Citation: Marvin F Kivett, “Excavations at Fort Atkinson, Nebraska: A Preliminary Report,” Nebraska History 40 (1959): 39-66

Article Summary: The 1956 excavations described here sought to delimit the area of the fort, secure samples of the tools and other materials used by its occupants, and locate the fort cemetery. Although these preliminary excavations were limited in nature, they provided evidence that much of interest to frontier history and national military history lay buried at the site. The article includes photos of many artifacts discovered at Fort Atkinson.

Cataloging Information:

Names: Pierre Jean DeSmet; W H Woods; Prince Paul, Duke of Wuerttemberg; John Paul Rathjen; Gabriel Field

Nebraska Place Names: Fort Atkinson (Cantonment Missouri), Fort Calhoun

Keywords: Fort Atkinson, Rifle Regiment (consolidated into the Sixth Infantry Regiment in 1821), cemetery

Categories of Artifacts Discovered: weapons, military buttons, glassware, items made from clay, Staffordshire ware, objects relating to transportation, clothing, kitchen and household tools, field tools, musical instruments, coins, building hardware, items of Indian origin or for Indian trade

Photographs / Images: north section of a Fort Atkinson plan drawn in 1820 by Lieutenant Andrew Talcott; museum model of Fort Atkinson; brick-walled basement; pike pole point found on the floor of a basement; Gabriel Field’s tombstone section; section of a burial showing the amputated right upper leg; uniforms of the army of the United States from 1874 to 1889; firearm parts, tools, and accessories (2 views); military buttons (4 views); bowls and bottles; chinaware shards (3 views); equine accessories; table utensils; tools; locks
EXCAVATIONS AT FORT ATKINSON, NEBRASKA
A PRELIMINARY REPORT

BY MARVIN F. KIVETT

MANY factors through the years tended to obliterate the remains of Fort Atkinson, but the general location of the fort has never been lost to history as have the sites of many fur trading posts, historic Indian villages and other locations important in Nebraska's history.

Information as to Fort Atkinson's location has remained in local tradition, handed down from the early settlers of the Fort Calhoun area. Written records also recorded the location. Father Pierre Jean DeSmet, the missionary who visited the site of Fort Atkinson in 1839, wrote in 1867:

... Fort Atkinson was located where now stands the town of Fort Calhoun, Nebraska Territory, about sixteen miles in a straight line, above the city of Omaha, and forty

Marvin F. Kivett is director of the Nebraska State Historical Society Museum. This is a preliminary report on excavations carried on at the site of Fort Atkinson during the summer of 1956.
miles by river; Mr. Cabanne's trading post was ten miles, by land, above where now stands Omaha City. Manual Lisa had a trading post one mile above Cabanne's.

In a second letter of the same year, Father DeSmet again refers to the location of the fort and town of Fort Calhoun:

... First, "Where was old Fort Calhoun located?" Fort Calhoun was never located; it took the name of Fort Atkinson, which was built on the very spot where the council was held by Lewis and Clarke, and was the highest and first military post above the mouth of Nebraska river.

Archaeological excavations made in the Fort Atkinson area were reported by W. H. Woods in the 1880's. Mr. Woods investigated building remains north of the De Soto post office which are probably attributable to the Mormon Summer Quarters establishment. He also referred to the location of the blacksmith shop at Fort Atkinson and remains west of Fort Calhoun which he called the fort's dairy house. Throughout the years which followed there has been sporadic interest in the site and its preservation.

In 1956, as a part of an intensified study of the Fort Atkinson site, preliminary archaeological excavations were carried out by the Society. The site is located in Section 12, less than a mile southeast of the Fort Calhoun post office. The Missouri River bluffs in this area form a broad level terrace, nearly a mile in width, with the town of Fort Calhoun occupying the west portion and the Fort Atkinson site being at the east edge immediately adjacent to the Missouri River Valley. The site lies at an elevation of 1,050 feet above sea level. There is a steep slope on the east front of the bluff leading to the flood plain fifty-five feet below. Descriptions by early writers which indicate the bluff to have been one hundred feet above the surface of the water would seem to have been an exaggeration, since it seems unlikely that fifty feet of filling has occurred. The old channel of the Missouri River is clearly discernible in cer-

1 Father Pierre Jean DeSmet to Mr. N. Ranney, December 9, 1867, *Nebraska State Historical Society Transactions and Reports*, I (1885), 42-43.
2 DeSmet to A. D. Jones, December 26, 1867, *ibid.*, p. 43.
tain areas at the foot of the bluff. At the south edge the bluff slopes gradually to a small intermittent stream which flows through Fort Calhoun from the northwest. This stream is identified on some maps as Hook's Hollow. Although deeply cut intermittent streams are common above and below the Fort Atkinson area, none of any size occur in the immediate vicinity. The bluff terrace extends nearly two miles north to Moore's Creek. There are isolated areas of the bluff surface which reach a height of twenty-five feet above the general plain, but much of the area presents a gently rolling surface. To the west the bluffs rise in a sharp slope to a height of nearly one hundred and fifty feet above the site area.

Throughout the years the remains of Fort Atkinson have been slowly obliterated. For many years the owners, the Beals family, preserved sections of the site in unbroken sod. Finally, however, all farmable areas were placed under cultivation. Stones, bricks, and other debris were thrown into the old building depressions, and efforts were made to level the area.

The purpose of the 1956 excavations was to delimit the area of the fort, secure samples of the tools and other materials used by its occupants, and to locate the fort cemetery or cemeteries. A general survey of other historic sites of the period was planned. It was also hoped that some progress might be made toward locating the site of Cantonment Missouri, occupied during the winter of 1819 and early spring of 1820. Little progress was made on the latter of our objectives. The remainder of the program was partially accomplished.

Complete plans and detailed descriptions of Fort Atkinson are not available. One of the more complete descriptions has been left by Prince Paul, Duke of Wuerttemberg, who visited the fort in 1822, and the site in 1830. Having visited the Oto Fort or Cabanne's Post near Ponca Creek, he traveled north, following the Missouri River bluffs and describes the Fort Atkinson area:
... I now saw the Council Bluffs, one of the most picturesque points along the often all too monotonous banks of the great river. The good-looking white-washed buildings of the fort could be seen at a considerable distance from almost any direction. . . .

The fort itself was a square structure. Its sides were each 200 American yards long. There were eight loghouses, two on each side. There were three gates leading into this fort. On the side toward the river there was only a passage under the houses which here were set one against the other. Each house consisted of ten rooms, and was 25 feet wide and 250 feet long. The roof of the houses sloped toward an interior court. The door and windows opened upon this court. On the outside each room has an embrasure or loophole, ten feet long. The interior court was a large grass covered square, in the center of which stood the powder house, built of stone. Around the fort, at a distance of fifty paces ran a fence with three gates. Outside the fort, on the northwest side was situated a council house, about fifty feet long, consisting of a hall and a smaller room. Here the government agents negotiated with deputations of the Indian nations and their chiefs.

On the northwest side of the fort were also several small houses, intended for the supplies of the artillery. The gunsmith also had his smithy here. The remaining buildings which were around the fort were located on the banks of the Missouri, on a level lower than the fort. In these buildings were housed the store for the personal needs of the establishment, moreover, the bakery, and the smithy. Here was also the house for the cabinet-makers and the carpenters.

On the south side was the gristmill and the sawmill. They were driven by oxen, and said to be completely equipped for this region. A storehouse, consisting of three stories, housed on the lower floor the spirituous beverages, on the second the salt pork, and on the third the cereals. Another storehouse, two stories high, contained all the materials and hardware required in the agricultural undertakings at the fort. The agricultural enterprise near the fort was splendid. A considerable stretch of land along the Missouri, south of the fort, and separated from the prairie by a row of hills, had been converted into excellent garden land. Here the finest European vegetables were grown. I saw our common cabbage, beans, onions and melons of excellent quality. . . .

In 1830, Prince Paul again visited the site of the abandoned fort and noted the additional architectural features of the fort:

... In the year 1827 these troops were withdrawn and stationed at Leavenworth; the fort or rather, the barracks.

---

*Paul Wilhelm, Duke of Wuerttemberg, "First Journey to North America in the Years 1822 to 1824," *South Dakota Historical Collections*, XIX (1938), 360-361.*
formed a quadrangle, with a bastion or blockhouse, at two of the angles...  

These descriptions by Prince Paul, various references to the construction work in the Sixth Infantry Regiment records, and a section of the fort's plan prepared by Lieutenant Andrew Talcott in 1820 have given us a fairly clear picture of Fort Atkinson as it appeared. The two bastions or blockhouses mentioned by Prince Paul were located at the southeast and northwest corners of the quadrangle. In the center of the quadrangle was the substantial powder magazine. The exact site for some of the outlying buildings has not been determined. A few areas have been destroyed by erosion, cultivation, and road building activities.

Today a county road leading from Fort Calhoun in a generally southeasterly direction skirts the west limits of the fort site and turns due east to cut through the south front of the site. It is in this area that some of the outlying building remains, such as the sutler's buildings, laundresses' quarters and others, may have been destroyed. Widening of this road during recent years has also removed what appeared to be the remains of a lime kiln. This road and earlier work for flood control may have effectively removed the site of the bakery, sawmill, gristmill, and other structures, bordering the ravine south of the fort. At one time this road crossed the southwest corner of the fortified section of the fort. This trail is still in use as an access road, but damage to the remains below may not be too great to follow the outlines of the building foundations.

The only visible remains at the fort area today include a series of depressions in the edge of the bluff east of the fortified area. There are also shallow depressions and low elevations scattered over the cultivated area which mark the location of buildings. A low mound in the central section of the area may be the remains of the magazine. It is known that this substantial structure was one of the last remaining buildings of the fort. Northwest of the fortified

---

section a concentration of limestone fragments, bricks, glass, chinaware, and some glass beads and other items of the type provided for the Indians may mark the site of the Council House. This structure was a story and a half building measuring fifty-six by twenty feet. In the southeast area beyond the fortified section of the post are several depressions marking the positions of other buildings. One of these which will soon be destroyed by erosion and road construction work may be the remains of a storehouse reported by Colonel Leavenworth to be under construction on April 1, 1822. The structure is described as being sixty by thirty feet with two stories above a stone-walled cellar below.

Approximately half way between this depression and the southeast corner of the fortified section of the post we excavated the remains of a structure measuring approximately twenty feet square. This excavation was designated as Feature 3. The present average depth of the basement dug into the clay was two feet. On ledges at the edges of the basement were the remains of soft wood logs which served as sills for the walls of the structures. The shallow basement had been filled with ash and camp debris. This material ranged from buttons of nearly every type found at the post, to an abundance of broken liquor bottles, chinaware, animal bones, musket and rifle balls, bone-handled forks, a brass jew's harp, several corn cobs, and many other items. Chinking for log walls found in the basement debris may have come from the original structure or may have been dumped with the trash from other buildings. A concentration of brick at the south end of the basement may indicate that a fireplace and chimney were originally in this section. It seems likely that these remains represent one of the temporary structures erected during the early years at the post and was probably never covered with siding from the sawmill. The abundance of Rifle Regiment buttons from the excavation would suggest its abandonment shortly after the 1821 consolidation of the Rifle unit into the Sixth Infantry Regiment. The articulated skeleton of a large wolf-like dog with a cavity crushed in the skull
EXCAVATIONS AT FORT ATKINSON

came from the upper garbage fill. It is interesting to note that the commanding officer commented in 1822 on the "... extraordinary accumulation of dogs at the post—so numerous as to become an intolerable nuisance ..." He therefore directed that all useless dogs be sent off or killed. The bulk of the camp refuse came from Feature 3.

An excavation in the area believed to be just north of the bastion at the southeast corner was the basement and foundation for one of the rooms in the fortification section of the fort. The structure measured ten feet by twenty feet with the long axis extending east to west and was designated as Feature 6. This was one of the more interesting structures excavated since all four of the brick foundation walls were still standing. The walls extended from a heavily limed clay floor to a height of about four feet. The south wall had been originally constructed to a width of three bricks at the ends and a width of two bricks in the central section. The other three walls were solid and four bricks in width. Covering the clay floor was a heavy layer of plaster, smooth on one face and showing the imprints of lath on the other. The plaster had fallen from the upper floor upon destruction of the building, possibly by fire. This would suggest extensive use of lath and plaster wall construction for the fort buildings.

Among the limited number of specimens in this structure was an iron spear point which appears to be from an espontoon. Other materials from the ruins of the structure included door hinges, metal Army buttons, bone buttons, and straight pins, similar to our modern type except for a full round head.

Another basement, designated as Feature 1, excavated

---

6 Daily Orders, July 23, 1822, Fort Atkinson Records, IV, 39. Typed copies of these records are in the collections of the Nebraska State Historical Society. Hereafter these records will be designated as F.A.R.

7 This was a poled weapon carried by certain early military officers with the theory that their attention could then be given to leading their command rather than firing a weapon. (Fritz, Kreidel and Frederick P. Todd, Soldiers of the American Army [Chicago, 1954], Plate 4.)
to the north, may be the second or third structure south of the east subterranean entrance. It is also possible that this structure lay east of the fortification. More extensive tests in this area were not possible because of growing crops. The structure overlying this basement also had been destroyed by fire, with the charred remains falling to the floor some six feet beneath the present surface. The long axis of the structure was fourteen feet extending east to west while the width north to south was about eight feet.

The walls of the basement were clay without stone or brick facing. The remains of eight circular timbers, ten to fourteen inches in diameter, had been set in the floor at each of the four corners and at the midpoint of each of the four walls. These apparently supported the structure above. Near the center point of the south wall was a concentration of brick and lime chinking. This appeared to represent the remains of a fireplace and chimney which were constructed on the ground level, outside the limits of the basement. A fragment of brick found here had been numbered previous to baking with a part of a number (120) made by a finger mark. This may have been some weary soldier's marking to indicate the number of bricks he had worked on, or it may have been an official tally of output.

Military buttons, musket balls, Indian trade beads, and straight pins were found in the basement fill. The remains of a bone-handled knife with two buttons of the Rifle Regiment came from a ledge at the north side of the basement. The floor of the basement was well covered with lime as ordered at various times by the commanding officer. Lying on the lime was a rectangular piece of tin from a box-like container. When lifted from the lime it was found that the exterior surface had been painted with brilliant red paint which is still well preserved. Two of the long strap hinges with the hinge posts were also on the floor at the east side. The door should have been to the west. The strap hinge may have been used with the room above in the opening cut to permit the soldiers to fire from the outside walls.
The lime chinking and the charred wood in the basement suggest that the building was originally constructed of logs and then chinked. Later one-inch boards were placed over the logs and some additional chinking was done. Hundreds of nails of various sizes were found. Many of these were short and were used to secure the sawed boards added later. Entrance to the basement area may have been by means of a trap door since there was no evidence of stairs or footings for the stairs.

A five-foot test trench was excavated in the area thought to be the east entrance to the fortification. This trench cut across a garbage-filled ditch approximately ten feet in width with a maximum depth of six and one-half feet below the present surface. Limestone slabs lined sections of the wall and the bottom of the ditch. Some bricks were also used for this purpose. Limestone for lime and for building purposes was quarried by the soldiers and brought up river some ten to twelve miles. The test indicated that this passageway had been filled with garbage, probably in 1827, when the fort was abandoned. Among the materials recovered were a rare Infantry cap plate, or hat insignia of the 1814-1821 period; clay marbles; patch-box lids, trigger guards, and butt plates of brass for the 1803 or 1814 U. S. Flintlock Rifle; the remains of two saddles, the identical features of which suggest they were Army issue; various padlocks and door locks; buttons of various types; an unsharpened, but damaged spade; a brass sword knuckle bow; clay pipe sections; iron spoons, a tin cup; wagon and carriage parts; ox shoes; crude iron; nails; bolts; and chain fragments. Gun flints of the dark English variety, and others of the lighter French variety were found throughout all of the excavations. A heavy iron section, which apparently formed a rectangular door frame eighteen inches high by at least twenty-six inches in width, has hinge posts on the right side. At the bottom are the letters "TSBURGH", perhaps from the word Plattsburgh of New York from where the Regiment moved to Fort Atkinson, or for Pittsburgh. The frame might represent a
safe door or it might be from one of the bakery ovens used at the fort.

From a point extending south of the north line of the fort toward the east entrance there are a series of eight depressions in the sloping edge of the bluff which have been referred to as "caches" by early settlers. These are beyond the east limits of the Fort Atkinson plan as illustrated and are overgrown with timber. The northern depression was completely excavated. It was found to be a rectangular structure and probably served as a root cellar or for similar storage. Its present depth was eight feet at the west or fort side and about four feet at the east or river side. Its length was nineteen feet north to south and twelve feet east to west. At approximately the midpoint of the east wall was an entranceway three to four feet in width extending toward the river bluff for a distance of more than ten feet. The remains of ten timbers which supported the roof were found around the edges of the structure. There were three posts in a line in the center of the structure and two additional posts on either side of the entrance about half way out from the basement. Timbers which were preserved were rectangular or square in cross section, suggesting they were hewn before being used. Their width varied from seven to sixteen inches. The clay floor had a coating of lime with drainage to the east toward the entranceway. There was no evidence of burning in this structure. Bricks and chinking were not found and it seems unlikely there was a fireplace in the structure.

This structure appears to have been a dugout storehouse without a second floor. The roof was probably constructed of logs covered with grass, brush and dirt. There may have been a door at the junction of the entrance with the structure since posts were set here and one hinge came from this area. Some short nails at the clay walls suggest they may have been partly faced with boards. Very few specimens came from the remains. They included two small iron cannon balls, a few iron fragments, nails and fragments of glass and chinaware. There were also several
Above—North section of a Fort Atkinson plan drawn in 1820, by Lieutenant Andrew Talcott. In the center is the powder magazine, at the upper left corner is one of the two bastions for cannon.

Below—Museum Model of Fort Atkinson. The view is toward the *north*.
Above—Brick-walled basement, excavated near the southeast corner of the fort.

Below—Pike pole point found on the floor of a basement.
Above—Gabriel Field’s tombstone section and other materials from Fort Atkinson in the Washington County Historical Society Museum, Fort Calhoun.

Below—Section of a burial showing the amputated right upper leg.
Uniform of the Artillery, Infantry, Rifle, Dragoon, Cadet (1813-1816; 1813-1821)


(Illustration XIII, Uniform of the Army of the United States from 1774 to 1889. Published by the Quartermaster General, 1890-1909. Note: This illustration appeared circa 1890. Subsequent research has revealed inaccuracies in the details of the uniforms as pictured here.)
military buttons of the usual type, including examples used by the Infantry and the Rifle Regiment. One button, however, was of the white metal type with the "U S" representing the Infantry button of about the 1784-1820 period. At the end of the entrance and continuing down the very steep slope to the floodplains below were found various forms of refuse, dumped from the fort above. Much of this suggests shop work and consisted of iron, tin, and brass sections. Also occurring were limited amounts of chinking, brick fragments, and chinaware. This excavation was described as Feature 4.

Approximately thirty feet north of this storehouse structure we located a series of rectangular pits near the present edge of the bluff. Growing in this area were a few asparagus plants which may be the descendants of that grown in the fort gardens. The five pits excavated had been filled before the fort was abandoned. These pits varied in length from about seven to nine feet, while the width varied from three to about five feet. The walls were perpendicular and the floor had been carefully leveled. A considerable amount of garbage was found in the fill. This consisted of animal bones, including those of the pig and horse; various types of glass bottles, including liquor and the small "Essence of Peppermint" type; Army buttons; a shoe sole; bone comb; a bone section from a violin bow; a jew's harp; Artillery buttons on cloth; an Infantry hat plate with the remains of the leather hat; limited amounts of chinaware; and six small Spanish coins, ranging in date from 1723 to 1804. Large amounts of lime as well as some ashes occurred in levels throughout the pits. It seems likely that these pits may be some of the many sanitary sinks which were ordered to be dug at various times by the commanding officer.

A short distance west of these sinks, but outside the walls of the fort, was found a single circular pit, designated as Feature 12. A large pile of lime partly covered

---

the pit and extended beyond. The pit contained charcoal, lime, heavy pieces of bar iron, slag, a belt buckle and gun parts. It measured slightly less than four feet in diameter and four feet in depth. A heavy rectangular section of iron from this pit has the impression of a flintlock hammer screw. The walls of the die-like tool are heavy, suggesting its use to exert pressure. It seems likely this pit was used in the work of the gunsmith or blacksmith.

There has been much speculation on the location of the cemetery for Fort Atkinson and the earlier Cantonment Missouri. The death rate was particularly high during the winter of 1819 and spring of 1820. Although there are several references in the daily orders to funerals of the officers and burial of the enlisted men and some civilians, the specific location of the cemetery is not given. There is a suggestion that the officers were either buried in a separate cemetery, or more likely, a separate section of one cemetery. On one occasion some human remains found on the hills west of the fort and identified as unknown soldiers from Fort Atkinson were sent to the United States National Cemetery at Fort McPherson. There seems to have been little direct evidence for this identification, since the prehistoric as well as the historic Indians utilized the hills in the area for their burials.

North of the site of Fort Atkinson, approximately a mile and a half, is a bluff section overlooking the Missouri River bottoms. Somewhere in the immediate bottoms below was the original site of Cantonment Missouri. In this field on the bluff, tombstone fragments have been found over a period of the last seventy years.9 The most recent find by Mr. John Paul Rathjen, the land owner, was the top section of a stone bearing the following “Gabriel Field, 1st Lieut. 6th Regt. born in Jefferson Cou....” Lieutenant Field was a prominent officer at Fort Atkinson, having died April 16, 1823, from what was described as “an acci-

9 W. H. Woods to R. W. Furnas, Nebraska State Historical Society Transactions and Reports, I (1886), 51.
The Council of Administration, convened at Fort Atkinson on March 1, 1826, ordered that steps be taken as soon as practicable to secure stones to mark the graves of deceased officers at the post and that the stones procured should bear the name, rank, regiment, and the time of death. This would suggest that probably only the officers' graves were marked with stones.

Mr. Rathjen had tested the field by means of a power auger without definite indication for burials. Our 1956 field party carried out tests in a small area by means of a trench extending north and south. Mr. Rathjen had marked the location of the Gabriel Field stone at the time it was found by means of a wooden stake. We centered our test trench near this wooden stake.

Our five-foot trench extended for a distance of fifty feet. At the south end, the trench was about thirty-six feet west of the bluff edge, and twenty-two feet west of the bluff edge at the north end. A total of five graves were uncovered in this test section. Four of the graves contained the remains of individuals while one grave was empty, two of the individuals were children, and two were adults, buried in an extended position at a depth of five feet with the head to the west. Little remained of the children's coffins except for the square nails and small fragments of wood. Larger sections of wood from the adult coffins were preserved. Square nails and some screws were used in the construction of the coffins. One of the coffins had a hinged lid which permitted the top section to be opened. Small pieces of tombstones, fashioned from a fine grained limestone, were found in the grave fill of the two adult graves and one of the children. There were no fragments found in the empty grave.

10 General Orders, Sixth Infantry Regiment, April 17, 1823, F. A. R., IV, 95-96.
11 General Orders, Sixth Infantry Regiment, March 21, 1826, ibid., V, 15.
During the summer of 1958 our attention was again directed toward the cemetery as a result of another grave having been partially uncovered. This grave with burial lay approximately three feet east of the tombstone stake. The field was in wheat during the 1958 test excavations so our investigations were limited to the single burial. The burial was that of a young adult male buried in a wooden coffin lying in the usual fashion with the head to the west. Of unusual interest, however, was the right upper leg. At a point approximately one-third the length of the thigh from the body, the leg had been amputated. The amputated surface showed no evidence of subsequent healing.

At the foot of the grave a rectangular excavation above the grave floor was found to contain a rectangular wooden box. The severed remains of the right leg were buried in this separate container. From this association it seems likely that the individual died shortly after the amputation. Medical records for Fort Atkinson have not yet been located; this record could indicate definitely that Field’s leg was amputated before death. The known details regarding his wound and the proximity of the stone to the grave would strongly suggest that this was the grave of Lieutenant Gabriel Field.

There were no buttons or other materials with any of the adults to indicate rank or unit for the adults. One of the adult skeletons excavated in 1956 was examined by Dr. T. D. Stewart. Among other observations he noted that the remains were definitely those of a white male around thirty years of age. He computed the individual’s height to have been five feet eight to nine inches. There were considerable dental cavities and some tooth loss. There was no evidence as to cause of death.12

The nails and other hardware from these graves appear to be identical to similar objects from the remains of Fort Atkinson. There can be little doubt that this is a

12 Dr. T. D. Stewart to author, January 8, 1957. Dr. Stewart is Curator, Division of Physical Anthropology, Smithsonian Institution, Washington, D. C.
cemetery for the Fort Atkinson officers. From the location of the cemetery, being at a considerable distance from the fort, it also seems likely that it was established with the first deaths at Cantonment Missouri in the flood plains below. Additional archeological excavations will be necessary before it can be determined whether the enlisted men are also buried in this immediate area. The dead from the Cantonment Missouri period of 1819, to the abandonment of Fort Atkinson in 1827, would have included more than two hundred people. These would have consisted of some civilians, such as fur traders, enlisted men or officers, or the families of the many men. Thus, this would be the first white cemetery of considerable size in the Nebraska region.

ARTIFACTS

A comprehensive description of the many specimens recovered from our excavations is not possible in this report. However, the artifacts recovered are significant for a number of reasons, and a limited description of them seems desirable.

Fort Atkinson represents one of the earliest and largest western forts. The time of occupation, a seven year span, is short, so that materials can be assigned to a particular period. Unlike many other forts of the period, the early architectural details and artifacts have not been obscured by subsequent occupancy and rebuilding processes. For students of military insignia and Army unit history, the remains from Fort Atkinson hold much interest. Only regular Army units, primarily the Sixth Infantry and Rifle regiments, were stationed at Fort Atkinson, while many of the other contemporary posts were also garrisoned in part with militia. An adequate study of the materials from the Nebraska fort will aid in definitive studies of our national military history. This is particularly true for the history of the Rifle Regiment which saw its final service at Fort Atkinson.
The materials from Fort Atkinson also represent one of the first excavated collections relating to early white history in this region. They will be useful for dating materials from historic Indian villages and for dating other early white occupational sites. In addition to these specialized uses the objects provide a visual means through their use in museum exhibits to teach our early frontier history.

Fort Atkinson as the station for the Sixth Infantry and Rifle regiments included among its inventory of ordnance materials a considerable variety of weapons and accessories. There are various references to these weapons in the daily orders as well as in ordnance reports. The individual arms, flintlock rifles and muskets, were the primary weapons. On September 30, 1820, the commanding officer reported that the Sixth Regiment had 281 stand of arms with 236 of these arms in the hands of the men and fit for use. The remaining forty-five were in storage and in possession of the armorer for repair. There were also on hand in the regiment, thirty-seven rifles issued only for hunting. Until April 1821, the members of the Rifle Regiment appear to have been armed with U. S. 1803 Model Rifles. Upon their consolidation into the Sixth Infantry and other regiments, some retained their rifles until they were replaced with muskets on August 1, 1821. On that date it was ordered that rifles would be turned in except for five per company, since muskets had been received. In October 1825, the need for rifles was again noted when the colonel of the Sixth Regiment ordered that Light Company B should be armed with rifles, pouches and horns, with other equipment, and be instructed and designated as a Rifle Company.

There are frequent comments regarding damaged or obsolete weapons in the Regiment. The 1822 report by the United States Ordnance officer bears out these comments. Among the small arms listed as assigned to Council Bluffs

---

were 222 muskets complete and 443 muskets damaged but repairable. There were also forty rifles complete and 625 rifles damaged but repairable. There was also one patent rifle on hand. Thus the commander at Fort Atkinson was still retaining most of the rifles issued in the Army. Fort Crawford at Prairie Du Chien was the nearest competitor with a total of 133 complete rifles and 109 damaged but repairable. Among other small arms and accoutrements listed for Council Bluffs were two noncommissioned officers' swords, 188 bayonet scabbards, and 220 bullet moulds out of a total of 264 listed for all stations. It is interesting to note that three of the four stations listing bullet moulds also listed rifles. It seems likely that these individual moulds were for use with rifles.

There were also suggestions at various times that the heavier weapons should be increased or improved. The report of 1822, however, lists the following for the post: nine six-pounder iron cannon, five twenty-four-pounder howitzers, ten six-pounder and one four-pounder traveling carriages, five twenty-four-pounder howitzer carriages, and various accessories such as rammers and sponges, worms and ladies, drag ropes, and powder horns. Other equipment included 2,221 six-pound cannon balls, and 168 three-pound cannon balls. They also had 205 shells for the twenty-four-pounder howitzer and 406 strapped shot for the six-pounders. There was case shot for all cannons. A total of 1,149 pounds of musket balls and 7,720 musket flints were on hand. The ammunition supply for the muskets seemed adequate, with more than two tons of musket powder, 89,400 musket cartridges, and 22,560 pounds of pig lead available in storage.

A general report on conditions at Fort Atkinson in 1826 described the arms:

---

15 This may have been one of the Hall breech-loading flintlock rifles, U. S. Model 1819, sent to the frontier to be tested.
The arms of the regiment are old and of various patterns of manufacture and are unfit for the Regiment, very probably inferior to those of any other Regiment in the service. The Rifles of the Rifle Company are particularly bad, although in firing order; they are old ones very hastily manufactured in the early part of the war; there are several hundred of this description in store. If pains were taken they could be sold at this post to Indians and traded for their full value. I have seen some exceedingly fine Rifles at the Ordnance Office in Washington, manufactured, I think as late as 1822 at Harper’s Ferry. . . .

It is evident that the post was well supplied with weapons for defense. Unlisted in the ordnance report were the private arms of the officers as well as those in possession of the various civilians. Some evidence of these private arms was revealed by our excavations. These include a lock and side plate from a holster or large pistol, probably of European origin and dating from after 1800. There were also various octagon barrel sections which may be from American sporting rifles. The U. S. Musket Model 1795, and contract specimen of 1808, were represented by iron locks, butt plates, barrel bands, and barrel sections. The U. S. Pistol Model of 1816 appeared to be represented by a flintlock hammer and a hammer screw. One upper vise jaw appears large for the usual U. S. martial arm.

The bulk of the rifle remains consist of the brass hardware or furniture, including patch boxes, trigger guards, and butt plates (Plate IA, 18-20). While some of these are in excellent condition, others are cut or have file marks suggesting that many were cut or filed to be used for other purposes. The primary difference between the 1803 and the 1814 models was in a slightly longer barrel for the latter. Complete barrels were lacking so we were unable to distinguish rifle models on the basis of archeological evidence. The Fort Atkinson records suggest, however, that the bulk of the unserviceable, or discarded rifles, were of the earlier model.

Gun flints fall into two general sizes—those probably used in the muskets and those used for rifles and perhaps

EXCAVATIONS AT FORT ATKINSON

pistols (Plate I A, 10-13). The musket size are all fashioned from light amber colored flint, often characterized as "French." These range in length from 24 mm. to 34 mm. and 26.5 mm. to 34.5 mm. in width with a range of thickness from 6.5 mm. to 12.5 mm. The rifle and pistol size flints include examples fashioned from both the light-colored flint and grey to black flint, often characterized as the "English" type. These range in length from 19 mm. to 29 mm. with a width of 23.5 mm. to 26.5 mm. and a thickness of 4.0 mm. to 12 mm. Although many of the flints show evidence of resharpening there are no homemade specimens.

Perhaps some of the more interesting types of specimens because of their rarity are the flint caps placed between the flint and the hammer cap to secure the flint and absorb part of the shock as the hammer struck the frizzen (Plate I A, 8, 9). There are four of these fashioned from lead and one from brass. These are oval in shape and vary in length from 25 mm. to 40 mm. They usually have a rectangular section cut from one end to clear the vise screw in the hammer and may be serrated at the outer edge. The brass example is unusual, but may have been cut from abandoned hat insignia or other thin brass work.

Musket and rifle balls were relatively common but no large concentrations were recovered from any of the excavations (Plate I A, 14-16). There is considerable variation in size, but the majority fall into sizes suitable for the musket and the slightly smaller examples suitable for use in the rifle or military hand guns. Although we found no bullet moulds in our excavations we do have a single example found on the surface which probably belongs to the fort period. It is a tong type with cylindrical body and spherical cavity for the ball. The jaws have a sharpened area for cutting off the lead projections. The caliber would appear to be less than that for the issued weapons.18

---

18 This summary on firearms and accessories is compiled in part from a more detailed report on file provided by Warren C. Caldwell, River Basin Surveys, Smithsonian Institution, 1958.
An object which probably served as part of the post armorer's equipment came from Feature 12. This is a small rectangular block of iron with one surface having the imprint of a flintlock hammer screw (Plate I A, 7). It appears to have been used with a corresponding half to exert pressure in forming or straightening the screws.

Small iron cannon balls with three general diameters (3.0 cm., 3.5 cm. and 5.0 cm.), came from the excavations (Plate I B, 10). Larger examples, including pieces of explosive and link shot, have come from the site. Examples of the large explosive balls have been recovered from the South Dakota Arikara Indian village bombarded by Fort Atkinson troops in 1823.19

Lying on the floor of the brick-walled basement, Feature 6, was an iron spear or pike point, measuring nearly 36 cm. in length (Plate I B, 9). It seems likely that this point may have been used on the military pikes issued during the earlier years in the Army. Remains of swords include an iron section of a blade and a knuckle bow or handle section (Plate I B, 7). Its gilded finish would suggest use by officers of the Rifle Regiment or of the Artillery.20

Military buttons were among the more common artifacts from the excavations. Approximately 60 percent of these were of the Rifle Regiment style of the type in use from 1808 to 1821 (Plate II A, 1-5). With the disbanding of the regiment at Fort Atkinson in 1821, many of the buttons were probably discarded. Other buttons represent the First, Second, and Third Regiments of Artillery for the period of 1814-1821 (Plate II B, 1-3). Some Artillery buttons are in the style of the 1784-1810 period. Buttons representing the Infantry were the second most common type

EXCAVATIONS AT FORT ATKINSON

found (Plate III A, 1-4). The oldest of these is of the white metal "U.S." type used in the 1784-1820 period. Unmarked buttons of brass, white metal, and bone were also found (Plate III B). Some of these may have been for trade with Indians or worn by the civilians or soldiers.

Two rare objects excavated were hat plates worn by the Infantry during the period of 1814-1821 (Plate I B, 6). One of these was found in one of the sinks together with fragments of a tall leather cap on which it was worn. Examples of the diamond shaped 1812 cap plates for Riflemen have also come from Fort Atkinson (Plate I B, 4, 6). Examples of the second pattern of the Riflemen's cap plate for the 1817-1821 period are more common. This consists of a large brass cockade stamped with a looped horn. A bugle and an eagle were worn above. These cockade sections also have been recovered from an early Pawnee village site in Webster County, Nebraska.

One plain rectangular waist belt buckle and a plain oval crossbelt plate are present in the collection (Plate I B, 3, 1). Various types of brass and iron buckles used on clothing and equipment also came from the excavations.

Large numbers of stoneware, chinaware, glassware, and pottery sherds were found, but there were relatively few complete specimens. The entire collection was submitted to the Smithsonian Institution for identification and description of the materials. The following paragraph is quoted from the letter accompanying the Institution report:

With much pleasure I have gone over the Fort Atkinson material. It all falls together beautifully, nothing being at variance with the limited period of the site. What surprises me is the lavish degree of household equipment at such a distant army post. Certainly, one would not expect to find there something as unusual as a black basaltesware teapot, nor so much Staffordshire china.

---

21 Summarized from identifications by Lt. Col. James Duncan Campbell in letters to the author and from Johnson, op. cit., Vols. I and II.
The most common items of glass were wine bottle fragments. All were broken, but one has been restored (Plate IV A, 1). These are olive amber cylinder glass bottles with the neck curving into a double-beveled lip. These bottles were hand blown and show evidence of the pontil rod on the inverted bottom. Such bottles were particularly common in the refuse from the "sinks."

There were also sections of heavy olive green glass bottles. These fragments were identified as from a "carboy or matras"—a large ovoid container usually used for chemicals. Such containers are described as common throughout most of the eighteenth century and through the first quarter of the nineteenth. It is possible that this container was part of the surgeon's supplies.

Drinking container fragments represent plain blown glass tumblers, a wine-glass foot of clear lead glass, and a hand-blown engraved tumbler rim. There are also fragments of blown-molded clear glass showing part of the base and side of a decanter or pitcher of the "three mold" variety, made principally by the Boston & Sandwich Glass Company between 1825 and 1835. Fine vertical ribs on the side are continued on the base toward the center. Some glass of this type is believed to have been made before 1825 by the New England Glass Company, founded in 1818.

Various forms of bottles were recovered. The most common type are the small clear flint glass form, square in cross section (Plate IV A, 2, 3). They are marked "Essence of Peppermint by the King's Patent." These contained a popular patent medicine which originated in England but was imitated in America. The wide popularity of this medicine lasted for more than a hundred years, until the 1850's. Examples of clear glass from our excavations may be English in origin while others with crude pontil marked bases may be American. Such bottles are also common in the early historic Indian villages of Nebraska.

Other evidence of patent medicine are the bases of small, blown, cylindrical bottles of aquamarine glass. These
are from bottles which contained “Bateman’s Pectoral Drops,” another long enduring patent medicine which originated in England in the eighteenth century and was imitated in America. The bottles were tubular with mouths similar to those on the peppermint bottles. These have no raised letters of identification but were originally wrapped in a paper label.24

Broken window glass, somewhat thinner than that in use today, was common in all excavations.

Items made from clay represented a variety of specimens. A few complete objects include a small redware pottery ink bottle, glazed on the interior (Plate IV A, 5). Such bottles were used in the portable traveling writing desks. There is also one complete and one fragmentary snuff jar of redware pottery (Plate IV A, 4). It is glazed dark brown and has a metallic luster. The rim at the top is of the type for securing a paper cover. There are also fragments of various salt-glazed jugs.

Staffordshire ware is well represented by sherds from Feature 3. Among the examples is a section of a blue transfer-printed white earthenware cup and saucer from the same set. It has a floral border with a central design of a child seated on a bench (Plate IV B, 5, 6). There is also a section of a white earthenware tea plate with molded relief rim design with floral swags and hand colored roses (Plate IV B, 2). One sherd has a black transfer scene showing a female figure. This example is believed to date from about 1815.

A portion of a blue transfer-printed bowl has a Chinese design (Plate VA, 8). There are also two fragments of the “Willow Pattern” blue-printed Staffordshire ware (Plate VA, 7). Bases of a Staffordshire whiteware bowl and sugarbowl had been burned prior to being discarded in the garbage. Various sherds represent “Mocha” ware which is described as a subclass of the banded white earth-

24 Information on patent medicine bottles provided by Mr. George B. Griffenhagen, Curator of Medicine and Public Health, Smithsonian Institution, 1956.
enware and creamwares produced by the Staffordshire potters (Plate IV B, 1). The most common form of decoration was carried out by the application of a brew of tobacco and hops to form a dendritic pattern.

The most common ware from Fort Atkinson is the English "shell-edge." Most fragments are from plates, but one section of a large platter in the collection bears the impressed mark of Enoch Wood & Sons of Burlem, one of the leading Staffordshire potters (Plate VB, 1). The American Eagle design suggests it was fashioned for the American market. The firm operated under this particular name from 1819 until 1846, so it is of interest to find this recent example of their work on the western frontier. The shell-like edge of this type of ware may be in green or blue.

Other marked pieces include an undecorated fragment of a plate with the mark "A. Stevenson, Warranted Staffordshire" in a circle with a crown at center. Stevenson operated his factory in Cobridge, Staffordshire, from 1808 to 1829.

Rare in the collection are pink-lustre saucer fragments. There are three sherds of blue-printed Staffordshire ware with superimposed bands of pink lustre (Plate VA, 13-15). Other rare objects include handle sections from a black basaltesware vessel which may be a teapot (Plate VA, 11). Pepper shakers have engine-turned decorations applied to the clay before firing, with one having a green glaze (Plate IV B, 3).

Although fragments of the long stemmed white clay pipes were common there were no complete examples recovered. One bowl section has the letters "W" on one side of the heel and "G" on the other (Plate IV A, 7). On the back of the bowl are the letters "T D" in a circle. One pipe bowl of red earthenware is made in the form of a man's head (Plate IV A, 6). This bowl is complete, and the stem opening indicates it was smoked with a wooden stem.

Baked clay marbles were found in nearly every excavation. Marbles were generally a man's game during this
early period and have been found in large numbers on encampment sites of the American Revolution and War of 1812. It would appear that the soldiers of Fort Atkinson also spent time at this game.

The other major items of clay from the site are the thousands of bricks made at the fort. There can be little doubt that thousands are still buried beneath the ground. They vary considerably in size and degree of firing. In one area of the fort grounds there are the remains of a large pile of bricks which have disintegrated. It seems likely these bricks did not receive their final burning.

Objects relating to transportation in the collection include ox and horse shoes, iron mountings for a doubletree, linchpins for wagons, or perhaps for cannon carriages, bridle bits, a currycomb and the remains of two saddles. These saddles were recovered from Feature 9 which appears to be the underground east entrance. It seems likely that the saddles and other materials were hastily dumped here upon abandonment of the fort. Only the metal parts remained, with fragments of the wooden sections (Plate VI A, 1). Although an iron stirrup came from one of the sinks, there were none with the saddles (Plate VI A, 2). Since both saddles are identical in type it seems likely they were government property. In the same excavation there were a number of heavy iron rings and chain sections which may have served on the cannons, wagons, or boats. What appears to be an iron bracket for a carriage also came from this excavation.

Direct evidence of clothing other than buttons includes a leather shoe sole for the right foot, a section of an Artillery Corps coat, and the section of an Infantry high leather cap recovered with the metal hat plate, referred to earlier.

Kitchen and household tools include bone-handled forks and knives. More than twenty two-tined, bone-handled forks are represented by fragments. Some have the flat

---

shank for fastening with rivets (Plate VI B, 1), while others have a tapered shank (Plate VI B, 2). There is considerable variety in the size of the knives recovered, and the two types of handle shanks are represented (Plate VI B, 8-10).

All spoons, except one, are of iron (Plate VI B, 4, 5). They vary in size from teaspoons to large cooking forms. One teaspoon has a white metal or silver finish. There is also half of a brass spoon mould for pewter spoons in the museum collection of items reported to have been found at the site during earlier years.

A large meat-cleaver type of iron tool came from the floor of Feature 6, the brick-walled basement (Plate VII A, 2). The animal bones which appear to include those of buffalo, pig, cow, and deer, usually show evidence of a heavy cleaver or saw in preparing the meat. Other animal remains in the garbage include fish, various wild birds, and the domesticated chicken. There were various sections of brass kettles, but iron kettles were lacking. Several iron candle holders came from the garbage. Condiment or pepper shakers are represented by two brass tops. Five pairs of scissors are represented by one complete pair and various sections. Common pins with rounding heads were found in three sizes. There is also a complete Betty lamp in earlier collections from the site.

Field tools include two spades much like our modern type, eyed hoes, wood and ice saw blade sections, and an iron wedge (Plate VII A). Other tools include three-corner files and wood-working chisels.

Remains of musical instruments include three jew’s-harps; two of iron and one of brass. A bone section of a violin bow came from one of the sinks. Other objects of bone include two types of combs. One type has fine teeth on both sides while the other is of the type for a lady’s hair, with long coarse teeth. Slate pencils, circular in cross section, and a fragment of a slate may represent the earliest school in Nebraska.
Above—Plate I A, Firearm parts, tool, and accessories.
Below—Plate I B, 1, Cross belt plate; 2, Spanish coins; 3, waist-belt buckle; 4, cap plate of U. S. Riflemen 1812; 5, copy of the 1812 Riflemen plate; 6, cap plate U. S. Infantry for 1814-1821; 7, sword handle section; 8, buckles; 9, iron spear point; 10, small cannon shot.
Above—Plate II A, Military buttons; 1-5 are Rifle Regiment; 6-9 are Light Artillery.

Below—Plate II B, Military buttons; 1-3 were worn by enlisted men of the Artillery Corps during War of 1812 period; 4-5 were worn from 1814-1821; 6 is for the period of 1784-1810.
Above—Plate III A, Military buttons: 1-4 are Infantry, 5 is a General Service type, and 6 is plain.
Below—Plate III B, Brass, whitemetal, and bone buttons.
Above—Plate IV A, 1. Wine bottle; 2-3, Essence of Peppermint bottles; 4, Redware snuff jar; 5, pottery ink bottle; 6, red earthenware pipe bowl; 7, white clay pipe bowl; 8, large bottle section.

Below—Plate IV B, Chinaware sherds; 1, Mocha ware; 2, hand decorated white earthenware; 3, engine-turned decorated condiment shaker with green glaze; 4-6, blue transfer-printed white Staffordshire china.
Above—Plate V A, Chinaware sherds: 1-3 and 6-8, Staffordshire blue-printed ware; 4, 5, and 9, are hand-painted white earthenware; 10, disks of blue Staffordshire; 11, handle fragment of a black basaltes vessel; 13-15, blue-printed Staffordshire ware with superimposed bands of pink lustre.

Below—Plate V B, Shell-edge English ware; 1, has mark of "Enoch Wood & Sons, Burlem."
Above—Plate VI A, 1, saddle frame sections; 2, stirrup; 3, section of a bridle bit; 4, horseshoe.

Below—Plate VI B, 1-2, types of forks; 3, bone handles; 4-5, spoons; 6-7, folding knives; 8-9, kitchen knives; 10, may be a side arm knife; 11, scissors.
Above—Plate VII A, 1, spade blade; 2, meat cleaver; 3, ice saw section; 4, iron comb; 5, spikes; 6, hoe handle; 7, wood saw section.

Below—Plate VII B, Locks and door hardware.
Although some American coins have been found on the surface, our excavations yielded only coins of Spanish origin. They include six silver coins in one and four Real size, varying in date from 1723 to 1804 (Plate I B, 2). They are much worn and two are perforated at the top as if they were worn as ornaments. These may have passed through Indian hands. The four Real size was minted in Madrid, Spain, while the others originated in Mexico City. Although there are no examples in our collection, specimens of the American dollar have been found which have been cut into sections. This suggests a scarcity of coins in use at the site and this early American practice is responsible for the term “two-bits” in our language today.

Building hardware was relatively common. Examples found include several sizes of butt hinges and strap hinges with posts (Plate VII B 4, 7). Padlocks of one general type, but occurring in various sizes, had been discarded in the rubbish or left in the building remains (Plate VII B, 2). Several are marked, indicating the majority were made in England. Other rectangular lock sets were fastened permanently to the door (Plate VII B, 1). Several of these still have the original black paint. Despite the relative abundance of locks, we found no keys. Nails, bolts and spikes occurred in many sizes. Screws, very similar to our modern examples, were found in limited numbers. It would appear that their use was reserved for special cabinets and coffin making.

Some items of Indian origin or for Indian trade were excavated. They include a few glass beads and a catlinite pipe bowl with the crudely scratched letters “F.I.T.” Glass beads were more common on the surface of the Council House area northwest of the fortified section. Buttons, chinaware, and weapons found in the remains of Oto and Pawnee villages were probably also traded by the Fort Atkinson soldiers. Two pieces of the blue-printed Staffordshire ware had been ground into circular disks, perhaps for trade to Indians (Plate VA, 10).
It is also of interest to note that construction of the southwest section of the fort disturbed the remains of a prehistoric Indian village. It seems likely that one or more earthlodge sites in this section were disturbed by the construction of the fort. The pottery sherds suggest that this site was occupied during the Nebraska Culture period of perhaps six hundred years ago.

Although the preliminary excavations at the site of Fort Atkinson were limited in nature, a considerable amount of new information has resulted. The actual location for a section of the east wall has been determined. It is also evident that much of interest to Nebraska history lies buried at the site. It would appear that the preservation, excavation, and perhaps some eventual restoration would present an important visual record of our nation's early military history.

The excavations have also resulted in the locating of a military cemetery for the Fort Atkinson period. Further archeological work will be necessary before it can be determined whether this is the cemetery for only the officers and their relatives, or whether it also includes the enlisted men and civilian frontiersmen.

Archeological survey work carried on in the general area also resulted in locating what would appear to be the site of the Cabanne fur trading post. This area has been partially destroyed by road construction work. It would appear that the site of Engineer Cantonment occupied by Major Long's party in 1819-1820, has been completely obliterated by stone quarry work. The exact site of Fort Lisa between Cabanne's Post and Engineer Cantonment has not been located by archeological evidence. It, too, may have been destroyed or disturbed by more recent activities. A similar fate may be expected for the areas of Fort Atkinson, Cabanne's Post, and other historic sites near rapidly expanding districts of Nebraska. Each year our historic sites are reduced in number by the construction of reservoirs and highways, by irrigation practices, and by the normal growth of our cities and towns.