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ARCHAEOLOGICAL EXCAVATIONS AT THE CHAUNCEY WEBB SITE (127-4)
NAUVOO, ILLINOIS, 1970

A Thesis
Presented to the
Department of Anthropology and Archaeology
Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Richard L. Hansen

April 1973

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Chapter 1

INTRODUCTION

The geographical area of study in this thesis is confined to property owned and occupied by Chauncey Webb which includes the land located in Township 6 North, Range 9 West, Section 2, Block 127, Lot 4, Parcel b, Nauvoo, Illinois. (See Figs. 1 and 2)

The major purpose of this thesis is to see what can be interpreted concerning the people and architectural features of the Chauncey Webb House Site, Nauvoo, Illinois, during the Mormon period (1839-1846). Supporting data include establishing ground level during the Mormon occupation, and identification and dating of the artifacts to their respective time periods. By a functional analysis and a close examination of the distribution of artifacts, the occupation and behavior of the occupants is determined as nearly as possible.

The value and need for a functional analysis and a close examination of the distribution of artifacts is pointed out by Virginia S. Harrington when she wrote this concerning the Webb Blacksmith and Wagon Shop:

In addition to completing the excavation within the shop, investigation of the remainder of the Edwin D. Webb property will be necessary to secure the information necessary to interpret the site and the operations carried on there. It seems likely that this space would have been used as a working area rather than as garden and orchard as was the case for homes with larger lots. The Pardon Webb tract should also be excavated. . . . It would also be helpful to carry on excavations around the Chauncey Webb House, for there is every indication that the three brothers worked together and all the interior space between the three buildings may have been used in common. There is at present only one well known for the three

properties, in the northeast corner of the Pardon Webb tract, though there is always the possibility of another one or more being discovered. Sheds, storage buildings, and the like, related to the blacksmithing and wagonmaking might well have been located beyond the Edwin D. Webb tract itself. (V. S. Harrington 1968:4-5)

The information gained in this thesis aids in the restoration of the site to the Mormon period. The analysis of the artifacts helps increase knowledge of the life style of the people who lived there. Additional understanding is gained about the technological items used by the Mormons. In determining which items were locally made and which ones were imported, understanding is gained concerning the system of trade and the industry of the Mormons.

The archaeological investigations at the Chauncey Webb Site were done under the sponsorship of Nauvoo Restoration, Incorporated. The first exploratory trench was dug by J. C. Harrington's crew in the summer of 1968. It extended south from the southeast corner of the Chauncey Webb house. (See Fig. 4) The rest of the excavation was conducted by Dr. Dale L. Berge and his crew in the summer of 1970. (Berge 1970)

To begin with, in this thesis, the location of the site is discussed. The purpose of the report and the history of archaeological investigations at the site is explained. Next is given a brief history of the city of Nauvoo, Chauncey G. Webb, the site using historical records, and the pre-Mormon, Mormon and post-Mormon periods are discussed. This is followed by a description of the site before excavation. The method of excavation is given in detail. The results of the field work are given in the form of a description and analysis of the architecture, glass, pottery, clay objects, metal, bone and miscellaneous. Dating the site and its artifacts is done by using

references to date the archaeological evidences. Restoration of artifacts and the site is described.

A problem other than that covered in this thesis would be to see what protohistoric archaeological remains could be found at the site including such remains as those of the Sac and Fox Indians mentioned in Chapter 2 of this thesis.

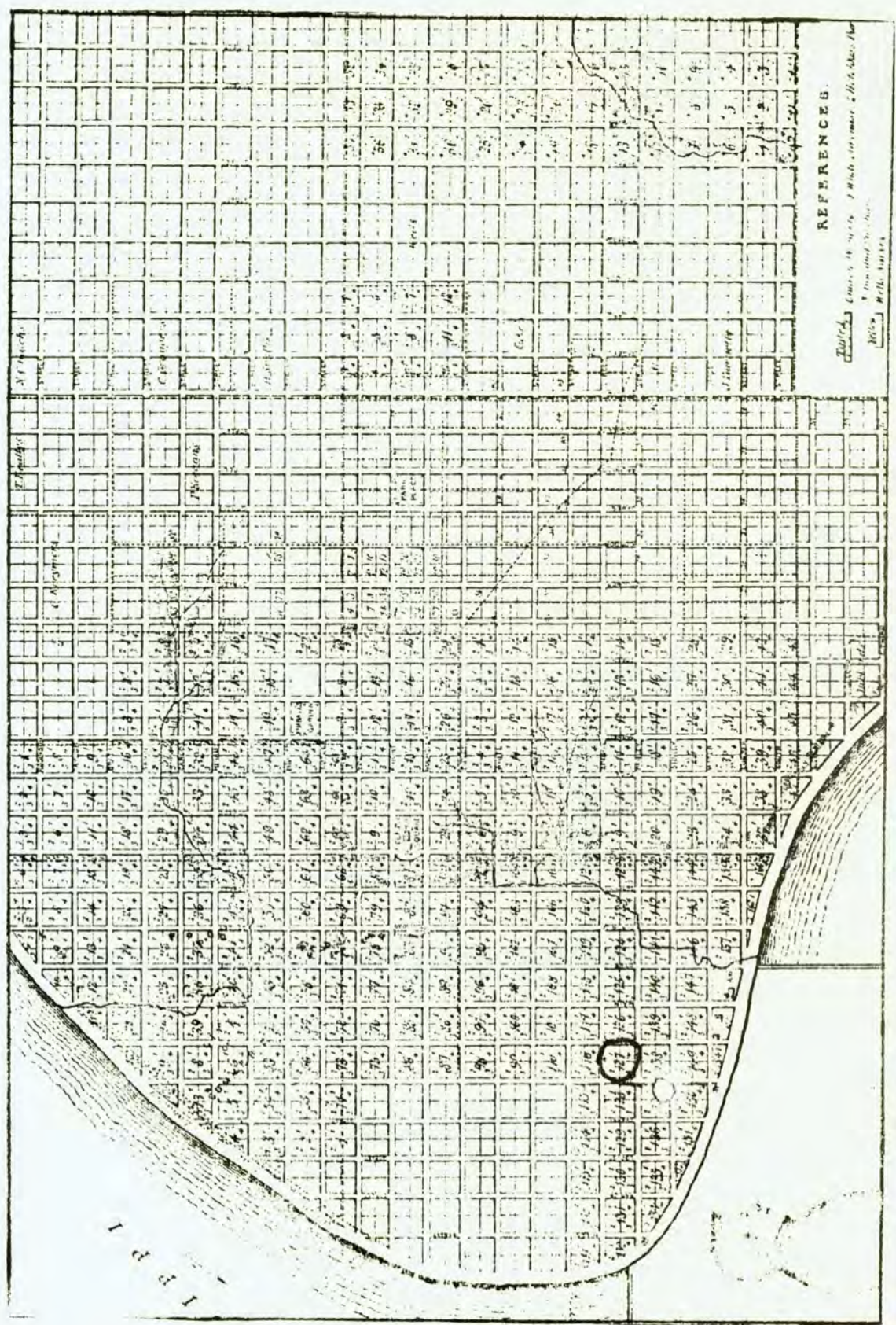
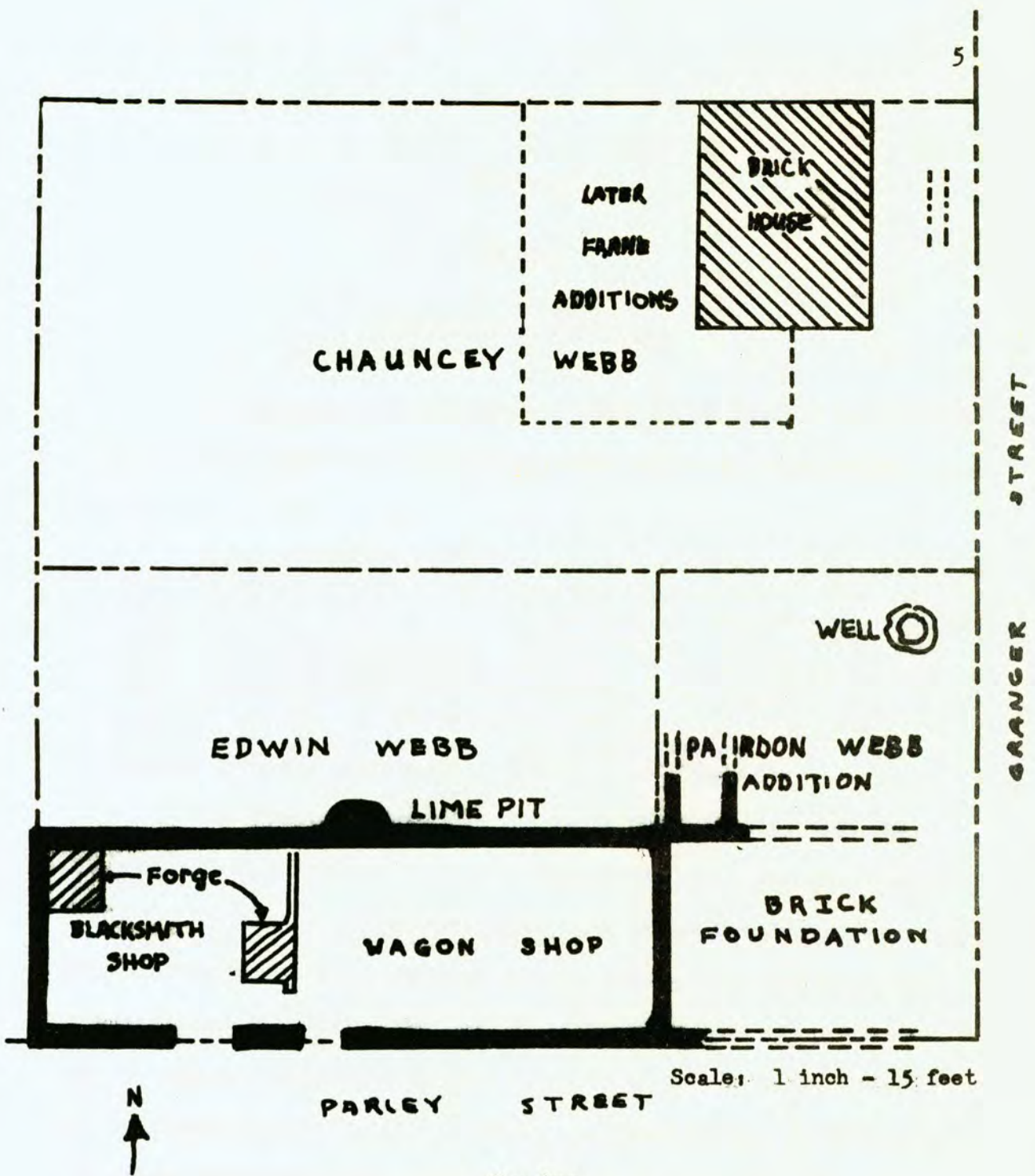


Figure 1. Grid Map of Nauvoo, Illinois



Showing
 Chauncey Webb Tract
 in Relation to Webb Tracts
 (Harrington 1968)

Figure 2. Southeast Quarter of Lot 4, Block 127

Chapter 2

HISTORY

GENERAL NAUVOO HISTORY

To understand the History of Nauvoo, Illinois, it would be of value to look a moment at its setting which has been described as follows:

Nauvoo is located on the east bank of the Mississippi River upon one of the grandest landscapes ever spread before human vision. Along the river there is a 'Flat' or bench of land several thousand acres, with hills rising in a terrace behind. Back of these is level land stretching into the country. The river flows past the town in crescent shape, and the view for miles around of the adjacent country, of the majestic river, and the wooded bluffs and bottom farms in Iowa is one of beauty and grandeur. The whole forms a panorama unsurpassed. (Unity Club) (See Fig. 1)

The 'Flat' mentioned in the quote above is less than one thousand acres, according to Dr. T. Edgar Lyon (Lyon, personal communication). The history of Nauvoo begins long before the Mormons arrived. This history begins with the Sauk and Fox Indians who came in to this area and drove the Illini Indians out of Northern Illinois. The Sauk and Fox Indians originally existed as separate tribes in the State of New York near the headwaters of the St. Lawrence River. At this place the tribes were eventually united. By 1780 the Fox tribe was solidly established along the Rock River in northeastern Illinois. The Sauk and Fox Indians established the large Indian village named Quashquema on the present site of Nauvoo. The government moved the Indians into Iowa before white men moved onto the land. (Lyon, personal communication)

The first known white settlers in the village of Quashquema were Captain James White, John Wagoner and Hugh White. Constantine Kreymeyer, in an article which appeared in the "Nauvoo Independent" November 14, 1923, reports:

Mr. James White bought. . . . one mile square, upon which Nauvoo now stands. The spring, down at the old ferry landing, was the center of the claim north and south. After purchasing it, White built the stone house and moved his family to Venus accompanied by the Wagoner family. White lived in the stone house he built. (Blum 1969:3)

In 1824 James White named the site Venus and in 1829 built the first permanent house in the region out of local stone and walnut; remains of it can still be seen today. On October 27, 1829, the first session and some succeeding sessions, of the Hancock County circuit court were held in the house. With the arrival of some other settlers in the region, the first post office in Hancock County was established there and called Venus. Commerce, Illinois, was laid out in 1834 and Venus was absorbed by Commerce. At this time, Hugh, Alexander and William White, and son-in-law, Isaac Campbell owned the land known as 'the flat' which is the land below the hill in Nauvoo. Isaac Galland purchased the White house and lands adjacent to his in 1836. The year 1839 ended a period of history in Nauvoo afterwards referred to as the pre-Mormon period and began a period of history which is designated as the Mormon period in this thesis.

The year 1839 opened one of the most exciting chapters of community life in Illinois. The Church of Jesus Christ of Latter-Day Saints or "Mormon Church" was founded in 1830. From that time until 1839 the members of the Mormon Church had been persecuted and harried from New York to Missouri. In Missouri, conditions became unbearable for them. The result of negotiations with Dr. Isaac Galland, a land

owner of Iowa and Illinois, was the purchase of two large farms in the vicinity of Commerce, for \$18,000.00 on May 1, 1839. This purchase was made by a committee of the Mormon Church which included liberal terms of credit.

The Mormon colony arrived by boat from Quincy in 1839. When they arrived they were given temporary shelter because at this time the settlement of Commerce consisted of six or seven buildings, two block-houses, a store house and a few crude dwellings. Led by Joseph Smith, the Mormons began to drain the unhealthy swamplike land below the hill, and to lay out their city. The area below the hill of limestone cliffs became swamplike because of the many small springs seeping out of the cliffs. The Mormons laid out streets, and built homes and some individuals also built schools.

Rock was quarried locally for a temple which was built on the hill. When the temple was finished it was claimed to be the largest building west of Cincinnati, Ohio and north of St. Louis, Missouri, at that time.

Under the top soil was a clay which the Mormons found to be good for making bricks. These bricks were a good cheap source of building materials for them. With the bricks they constructed buildings such as the two-story Seventies' Hall on Parley Street, the three-story Masonic Temple on Main Street, and the four-story building at the corner of 12th and Mulholland Streets. Approximately 259 brick homes, and 1650 to 1800 houses built, factories were constructed, and industries developed.

Joseph Smith renamed the settlement Nauvoo, which he said, meant "beautiful place" in Hebrew. It truly did live up to its name under the hands of the Mormons and continues to do so today.

Converts to the church arrived daily as a result of the missionaries who were sent to foreign countries as well as to various parts of the United States. Nauvoo grew rapidly. Legal titles were acquired by two means; by purchase at \$1.25 per acre through the U. S. Government land office; and "through the federal grants to the veterans of the War of 1812 (bounties)." (Blum 1969:4-5) To mark their land, the Mormons were advised to put up fences and those buying land in adjacent country were encouraged to build hedges around their property.

Some of the people in Nauvoo were glaziers, painters, plasterers, and stone and brick masons. They had three lumber yards and four lime kilns. The two most important architects were Lucien Woodworth and William Weeks. The city had six blacksmith shops and cabinet makers, fourteen boot and shoe shops, a comb factory, coopers, ten shops where rugs, dyes and paints were sold, cleaning and pressing establishments, one foundry, nine dressmaking and millinery shops, one gunsmith, a straw hat manufactory, five horse breeders and teamsters, a match factory, nine law firms, ten mills, thirty-five general merchandise stores, three notary publics, thirteen physicians, one daguerrotypist and five potteries. Four stone quarries in operation were: The Hiram Kimbal quarry, the Robert D. Foster quarry, the Loomis quarry, and the Temple Stone quarry on Main street. Bricks were often made at the same spot where a building was to be located. Despite this fact there were still several commercial brickyards in Nauvoo.

The city had several realtors, a newspaper, four stationers, six silversmiths, one rope walk, a watchmaker, a goldsmith, a slaughter house, two surveyors, three soap and candle factories, eight tailor shops, two ironmongers, a coffin maker and three cemeteries, seven

wagon shops and a tanning mill. There was a Farmers' Exchange, a Nauvoo Carriage and Coach Association and a Nauvoo Agricultural and Manufacturing Association.

River traffic played an important roll in Nauvoo's program of economy and the following ferry boats and steamers were listed in the local papers at the time: Nauvoo and Montrose ferry, Iowa Twins, Maid of Iowa, and a man conducted sailboat excursions over the rapids. Dan Jones, Vincent Knight and Charles Ivins were boatmen; Daniel C. Davis and Daniel Carn operated ferries. Stopping at Nauvoo at stated intervals were the Mendota, War Eagle, and Mermaid steamboats. (Blum 1969:5)

One of the oldest women's organizations in the United States with a continuous existence, the Female Relief Society, was organized at Joseph Smith's store on March 17, 1842. It later dropped the word "Female", in 1873. One of the leaders in this organization was Eliza R. Snow, a poetess and song writer (a distant relative of the investigator). Her best loved hymn was "O My Father." She gained recognition as a poetess with the publication of her poem, a requiem for John Adams and Thomas Jefferson, who died on the same day, July 4, 1826.

It is evident that under the hands of the Mormons, Nauvoo was very active and prosperous. In 1846, Nauvoo was visited by a United States Army officer, Col. Thomas L. Kane. He gave his impressions of this frontier city:

Ascending the upper Mississippi in the autumn, when the waters were low, I was compelled to travel by land past the region of the Rapids. . . . My eye wearied to see everywhere sordid, vagabond and idle settlers, a country marred, without being improved, by their careless hands. I was descending the last hillside upon my journey when a landscape in delightful contrast broke upon my view. Half encircled by a bend of the river, a beautiful city lay glittering in the fresh morning sun; its bright, new dwellings, set in cool green gardens, ranging up around a stately dome-shaped hill, which was covered by a noble marble edifice, whose high tapering spire was radiant with white and gold. The city appeared to cover several miles; and beyond it, in the background, there rolled off a fair country, chequered by the careful lines of fruitful industry. The unmistakable marks of industry, enterprise and educated wealth

everywhere, made the scene one of singular and most striking beauty. (N. R. I. 1967)

Estimates for the peak population for Nauvoo range anywhere from 11,000 to 20,000 people. The 1845 Illinois census listed the population at 11,057. (Lyon, personal communication) At any rate, authorities seem to agree that Nauvoo in its prime, was the largest city in Illinois, even larger than Chicago. With Nauvoo being such a large frontier city, it attracted the transients and riffraff who roamed up and down the Mississippi River. These people could not be distinguished from the Mormon converts who arrived daily. So when someone from Nauvoo did something wrong everyone was blamed. This caused conflict between Mormons and non-Mormons in the area, which became intolerable. On June 24, 1844, Joseph Smith, the Mormon leader, gave himself up for imprisonment to await trial at Carthage, Illinois. He was killed by a mob three days later, on June 27.

After the death of Joseph Smith a meeting was held at Nauvoo in which the genius of Brigham Young's leadership was revealed. February 1846 brought the beginning of the exodus of the Mormons from Nauvoo. On February 4, 1846, the first body of Mormons crossed the Mississippi and started westward on their long trek to the Rocky Mountains and the Salt Lake Valley. This exodus of the Mormons from Nauvoo ended the Mormon period in Nauvoo. The exodus actually took about eight months to be completed; although some stragglers left as late as 1853 for the west.

The Nauvoo Temple was burned in 1838. That same year a group of sixty-nine Frenchmen, calling themselves "Pioneers of Humanity", left LeHarve, France, on their way to Texas. After a disappointing attempt at colonizing in Texas, they heard of the exodus of the Mormons from Nauvoo and traveled up the Mississippi. Nauvoo fit their needs and

purposes in every way. March 15, 1849 was their date of arrival and they soon had a colony established. This began the post-Mormon period, which continues up to the present time.

Upon the twelve acres of land which the group of Frenchmen purchased, they constructed a large assembly hall which contained a refractory, a communal kitchen, women's workshop and sleeping quarters. They also built apartment houses. Their government was made up of a yearly elected president, a cabinet consisting of directors of public instruction, finance, clothing, and nourishment, and industry and agriculture. They had many talented people who were teachers, musicians, engineers, artists, and professional men. The population never grew to more than five hundred at any one time although about one thousand migrated from France.

The Icarian leader, Etieene Cabet, grew harder to get along with as he grew older and wished to be made dictator for ten years. The majority of the members in the commune declared that as much as they loved him they would not submit to a dictator. They said that he, himself, had taught them that the ideal of freedom was for each person to be equal to the other. Cabet refused the offer to be re-elected president year after year for as long as he wanted. He and his faction took the matter to court and lost the court battle. Cabet left Nauvoo with his followers, brokenhearted, and went to Cheltenham, which is now a part of St. Louis, Missouri. The larger group left Nauvoo in covered wagons and went to Corning, Iowa. "The last of the Icarians left Nauvoo in 1858 to join their comrades in Iowa, and Nauvoo had looked its last upon colony experiments. Many fine families have remained from both the Mormon and Icarian settlements." (The Nauvoo Centennial

Association 1939)

A gradual resettlement took place in the late fifties and sixties. This resettlement did not involve any great numbers of people. A strong German strain is noted in the Nauvoo population today because of many new settlers who came to Nauvoo after fleeing the German revolutions of 1848. John Siller and A. Rheinberger were some of the first German settlers to plant vineyards. Grapes were made into wine, which was marketed in St. Louis but reduction in prices resulted in individual wine cellars being built. They numbered about fifty in the town of Nauvoo.

Prohibition precipitated the discovery that the limestone wine cellars could produce excellent blue cheese. So wine and blue cheese are Nauvoo's main products today.

Many schools have come and gone from the Nauvoo Scene. The Benedictine Sisters have conducted the St. Mary's Academy, a school for girls, since 1874. There is a public grade and high school and St. Peter and Paul grade and high school in operation in Nauvoo today, as well as St. Mary's Academy.

At present there are two organizations interested in restoring the old city of Nauvoo to the Mormon period. They are the Reorganized Church of Jesus Christ of Latter-Day Saints and Nauvoo Restoration, Incorporated.

The reorganized Church of Jesus Christ of Latter-Day Saints is in possession of the Joseph Smith properties. They sponsor archaeological research on the properties and conduct year-round guide service.

In the last few years Nauvoo Restoration, Incorporated

(N. R. I.) has been actively buying and restoring parts of the old Mormon city of Nauvoo. Nauvoo Restoration, Incorporated, is a perpetual corporation which was filed and recorded with the State of Illinois on July 27, 1962. Nauvoo, Illinois is its officially registered office. (N. R. I. 1970)

The purpose of Nauvoo Restoration, Incorporated, is to procure legal title to the property which is contained in all or part of the old city of Nauvoo, Illinois, and vicinity. The property is to be restored to its original physical environment and furnishings; and to be preserved and protected as a historical site. The corporation is also intended to promote understanding and appreciation of the story of old Nauvoo, and the mass migration of its people to the Great Salt Lake Valley. (N. R. I. 1970)

As was mentioned in the Introduction, Nauvoo Restoration, Incorporated, sponsored the archaeological excavation done at the Chauncey Webb Site, (127-4b).

GENERAL HISTORY OF CHAUNCEY GRISWOLD WEBB

Research was done on the historical documents by Nauvoo Restoration, Incorporated (1968) for this section and the following one on house history. The only exceptions to this, are the sketch of the life of Chauncey Griswold Webb written by his granddaughter, Olivette Webb Gee Henry (Merrell 1948), and the obituary of Chauncey G. Webb in the "Deseret News" (1903:2).

Chauncey Griswold Webb was born on October 24, 1812, in Hanover, New York. He joined the Mormon Church with his parents, James Webb, Sr., and Hannah Griswold; and moved with the family to

Kirkland, Ohio, which was then the headquarters of the Church of Jesus Christ of Latter-Day Saints. The Webb family records and a journal of a resident of Kirtland, Ohio, indicate that James Webb, Sr. operated a wagon shop at Kirtland. It appears that his five sons learned the blacksmithing the the wheelwright trade with him. Chauncey was the eldest of the children, his closests brothers in age and the ones who had an active part in Nauvoo were: Edwin Densmore, Edward Milo, Pardon Knapp, and James Wesley. There were four more sons and three daughters in the family when they lived in Nauvoo but they were too young to have a trade. Chauncey met and married Eliza Jane Churchill while he was in Kirtland. The Webb family moved to Caldwell County, Missouri late in 1837 or early 1838. The Webbs moved to the vicinity of Quincy, Illinois during the winter of 1838-1839, when the Mormons were expelled from Missouri. After the death of James Webb, Sr. in 1845 the mother and smaller children moved to Nauvoo. It seems that Chauncey G. and Edmund D. were already settled in Nauvoo at the close of 1841. There is a record of a bond between J. B. Noble of Hancock County, Illinois, and Chauncey G. Webb, in which Chauncey agrees to buy "Lot No. four in Block No. one hundred and twenty seven/I.E. the south half, of the north half of said Lot." (N. R. I. 1968) The date of this bond is February 11, 1842. It is not known exactly when the house was built. He was a neighbor and became a close friend to Brigham Young while living in Nauvoo. He was also a close associate of the Prophet and Mormon Leader, Joseph Smith. Joseph Smith personally taught Chauncey the law of "plural marriage". The Webb family said concerning this:

Both Chauncey and his wife had a strong testimony of the divinity of this doctrine; but it took a long time and much praying for them to overcome their aversion enough to put it into actual

practice.

As it happened a friend, leaving the state for a time, requested that his eighteen year old girl, Elizabeth, stay with the Webbs until her parents returned. While Elizabeth was with them the entire Webb family loved and became very attached to this pleasing and intellectual girl. The girl, in turn, loved the family so with mutual consent for all concerned Elizabeth Taft became Chauncey Webb's plural wife. Chauncey was just and fair and the two wives were kind and thoughtful of each other as a result all were able to live together for twelve years without ever an unkind word. (Merrell 1948)

In the 1841 Nauvoo City Book of Assessments with Lewis Robinson being the assessor, Chauncey G. Webb's assessed property is as follows: 15 cattle, 6 clocks, 15 stock in trace property not innumarated, a total of \$36.00 value of personal property, and Lot 1 Block 127, value \$45.00.

A February 1842 L. D. S. Church First Ward Census lists Chauncey G. Webb, Eliza Jane Webb (his wife), Chauncey G. Webb Jr, Edward M. Webb, and Lorenzo G. Webb as living in Chauncey's house on Block 3 of the First Ward Boundaries. From this we learn that in 1842, Chauncey's family consisting of five people lived on the house site.

Chauncey G. Webb's and his brother, Pardon Webb's names are listed on a "Poll Book of election, Fourth Ward, 6 February 1843, for Mayor, Aldermen, and Councillors in the City of Nauvoo." (N. R. I. 1968)

In the 1843 Nauvoo City Book of Assessments, Chauncey's property was assessed by Henry G. Sherwood as follows: "\$15.00 personal property and description of lands W. P. N1/8 of SE qr Lot 4 Block 127, valuation \$40.00." His assessed property had not changed much between 1841 and 1843.

Chauncey G. Webb's name appeared on a "List of the Men who were in Nauvoo at the time of the Battles of September 1846 as far as recollected." (N. R. I. 1968) He was listed as fighting in the "Spartan Band" under Captains William Anderson and Alex McRae.

He was in the First Division of Brigham Young's Company when they started for the Rocky Mountains in May 4, 1848. He was a Captain of fifty in this division. Brigham Young assigned Chauncey Webb to supervise the construction of handcarts in 1855.

Chauncey's obituary said that he built the wagon that Brigham Young rode in when he first entered the Salt Lake Valley on July 24, 1847.

The 1850 Census for Davis County, Utah, No. 27, lists Chauncey G. Webb, age 39, as a wagon maker. Then it lists his wife, Eliza J. Age 34. His children are listed as Chauncey G. age 14, Edward M. age 12 and Ann E. age 6. At this time Chauncey and family were living in Davis County, Utah, and he was pursuing his trade as a wagon maker.

Chauncey was put in charge of making wagons by Brigham Young "to be used for freight and passenger service between Independence, Missouri and Salt Lake City, when Brigham Young and Hiram Kimball secured the mail contract for that route, under the designation Y Express Co." (N. R. I. 1968)

Chauncey served missions for the Mormon Church to England, the United States and the Sanwich Islands.

Chauncey had two homes in Utah: one in Salt Lake City, at 446 East Third South, and the other in Cottonwood. He served as superintendent of the Sunday School in Cottonwood.

He died of old age on April 7, 1903, in his home at 446 East Third South, Salt Lake City, Utah.

HOUSE HISTORY 127-4b

Since the house was built during the Mormon period I will start

the history of the house in that period and bring its history up through the post-Mormon period.

Mormon period

Joseph and Emma Smith of Hancock County, Illinois, sold Lot 4 in Block 127 along with some other land described on the plat of the Town of Nauvoo (Fig. 1) to Joseph B. Noble of Lee County, Iowa on July 15, 1841.

As mentioned in the previous section on Chauncey's life history, there is a record of a bond between J. B. Noble of Hancock County, Illinois, and Chauncey G. Webb in which Chauncey agrees to buy "Lot No. four in Block No. one hundred and twenty-seven/I.E. the south half of said Lot." (N. R. I. 1968) He was to pay for the lot by doing \$200 worth of carpenter and joiner work when called for. This bond was dated February 11, 1842.

A warranty deed dated June 25, 1844 from Joseph B. Noble and Mary A., his wife, of Hancock County, Illinois, to Chauncey G. Webb of Hancock County, Illinois sold the "north half of the southeast quarter of Lot 4 in Block 127 in the City of Nauvoo, Hancock County, Illinois", (N. R. I. 1968) for a consideration of \$150.00. It appears that by this time Chauncey had paid off enough of his bond to buy the property.

The exact date when Chauncey Webb built his house is not known. The only references which could be found to building materials charged to him are:

Sep. 22, 1842	for 1/2 cord of stone valued at	\$1.25
Apr. 18, 1844	45 bushels stove cole	5.00
Apr. 30, 1844	to stove cole	5.00
		(N. R. I. 1968)

Chauncey Webb sold his tract (N/2 of SE/4 Lot 4, Block 127) to

George W. Mull, in 1846 for \$125.00

Post-Mormon period

Research in the Hancock County records by Rowena Miller for Nauvoo Restoration, Incorporated, uncovered the following chain of title:

George Mull deeded this tract to Peter Wolf on June 1, 1847, consideration \$200, and it stayed in his possession until June 22, 1887, when it was deeded to Ed. J. Knaust of Chicago for \$160.00. The assessed valuation record during the time it was owned by Peter Wolf doesn't show much fluctuation except a steady decline.

In 1894 Edward J. Knaust sold all of the SE/4 of Lot 4 to George P. Kraft for \$150.00. I think by this time the blacksmith shop and Norris house had disappeared. The property then became involved in the George P. Kraft Estate (1926) and William D. Kraft Estate (1938) and I have not tried to unravel it. Hugh R. Whitlock obtained the full Block 127 in 1945 and then in 1962 sold it to Dr. Kimball. (N. R. I. 1968)

Dr. Kimball, who is the last person to buy the property, is one of the founders of Nauvoo Restoration, Inc.

No references have been found concerning remodeling of the house. The only photographs which have been found show the house basically as it was at the beginning of excavation. The remodeling must have been done before the earliest photograph which was obtained, which dates to 1963. (Photo No. 1 and 2)

The lowest value of the property was in 1890 when it was assessed as being worth \$36.00; this is quite a drop from the time of Chauncey Webb, who paid \$150.00 for it.

Photo 1. Chauncey Webb House in 1963, before Excavation

Photo 2. Front of Chauncey Webb House in 1970, Prior to Excavation.



1



2

Chapter 3

DESCRIPTION OF THE SITE

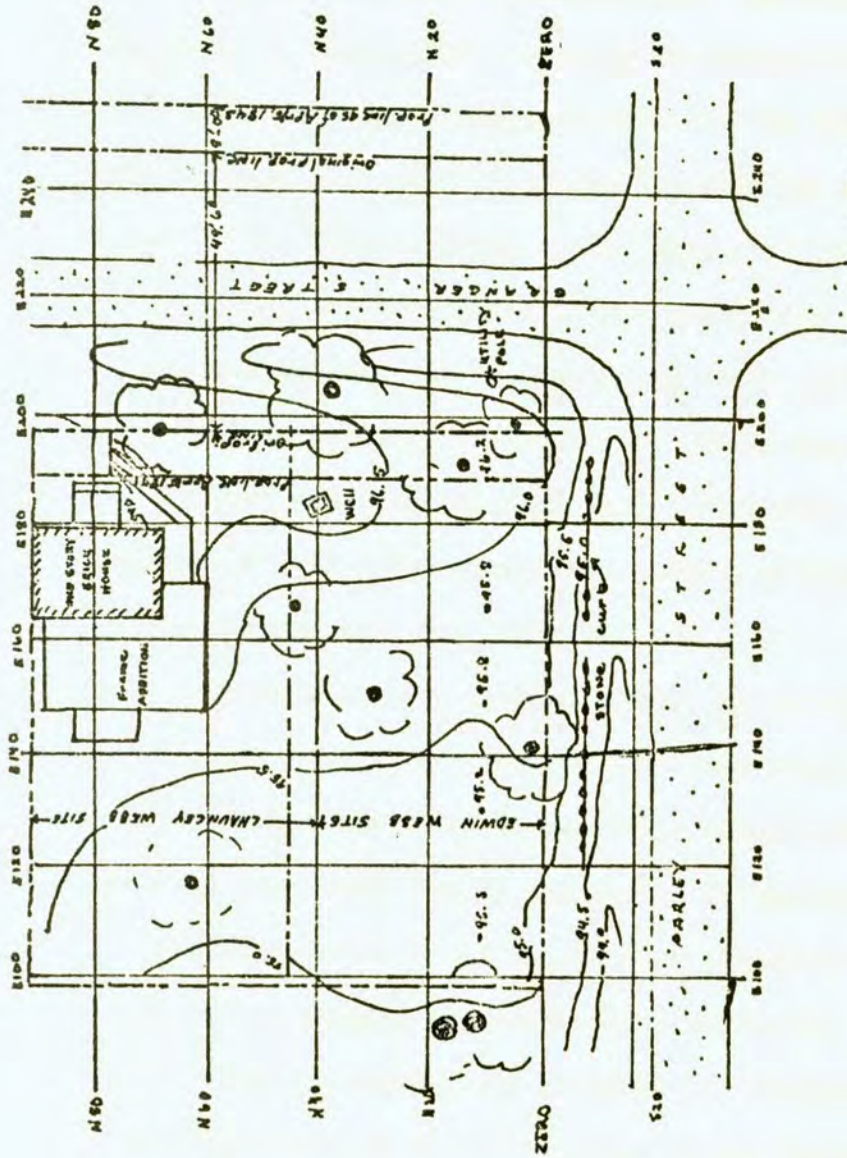
The property owned by Chauncey and his brothers, Pardon and Edwin D. Webb, together only amounted to Lot 4 of Block 127 in the city plan. This was the southeast quarter of the lot at the corner of Granger and Parley Streets. Chauncey owned Parcel b, which today measures approximately 46' x 92'. His property fronted on Granger Street (Fig. 1).

Referring to the plot plan of the site (Fig. 3), the Chauncey Webb House was located in the northeast corner of his property. There was a frame addition added on to the west side of the house. This frame addition appeared to have been added onto the house in the post-Mormon period.

The house appeared to have undergone a reconstruction at one time. Evidences for a reconstruction are the doors and windows being changed along with brick work being added (Photo 2).

When the Nauveo Restoration, Incorporated, archaeological crew, headed by Dr. Dale L. Berge, moved onto the site, June 8, 1970, Dr. Berge commented that the house was in a poor state. "Some of the walls are bowed out while others are buckled in. The basement is full of dirt and junk," (Berge 1970).

Photographs of the site show trees in front of the house which were later removed in excavating (Photo 1).



--- = Property line
 ——— = Elevation in Feet
 Vertical Elevation is assumed at 100.00 Feet
 on Stone Floor Sill at Front of Brick House
 Scale
 1" = 50 Feet
 FIG. 1 - PLOT PLAN of
 SE 1/4 of LOT 4, BLOCK 137
 at start of encroachment in 1927

Figure 3. Plot Plan

Chapter 4

EXCAVATION AND FINDINGS

As was stated in the Introduction, the first exploratory trench was dug by J. C. Harrington's crew in the summer of 1968, and it was extended south from the southeast corner of the Chauncey Webb house. But for the most part we will be dealing with the main excavation conducted by Dr. Dale L. Berge in the summer of 1970.

In the site description it was noted that the house was in a bad state of preservation. At the beginning of the 1970 excavation trenches were dug around the walls of the house. Their dimensions were 10 feet long and 3 feet wide for the most part. They were started 10 feet away from the house with a few exceptions. For a drawing of the house with trenches and structures see Figure 4.

The excavation was started around the outside of the walls of the house first so that the construction crew could make necessary repairs on the outside where it was badly needed (Photo. 3). The construction crew could repair the inside of the house during the winter.

During excavation, artifacts were placed in bags or boxes according to bag number, excavator, date excavated, location (such as trench 4), level or layer (such as level 1), and depth from the surface. These artifacts will be discussed later in the chapter on Description and Analysis. Arbitrary levels were dug down 6 inches at a time until distinct layers of soil could be discerned and followed (Fig. 5). The 100-foot elevation datum was set at the north end of the front deer sill.

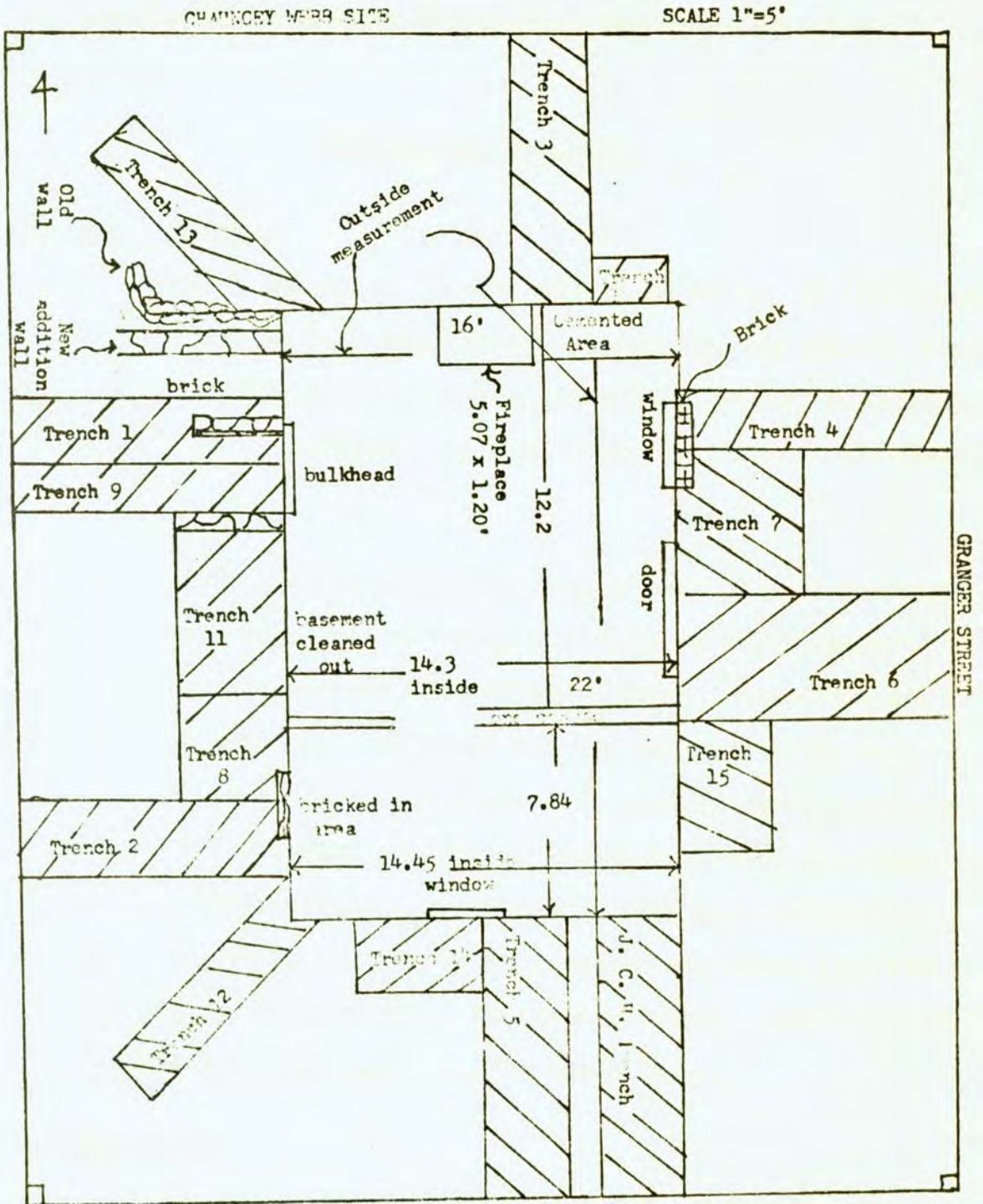


Figure 4. Excavation

The architectural structures and natural features were drawn and photographed as the excavation progressed. Archaeological excavation revealed the following about architectural structures and natural features;

ARCHITECTURAL STRUCTURES

Bulkhead Entrance

Trench #1 was dug on the west side of the house. In this trench, the crew was looking for a possible wall leading into the cellar. There was a bulkhead entrance at this point. Excavation resulted in locating a cheek wall to the bulkhead. The wall is made of bricks in two courses.

Basement Window

Trench #2 was laid out on the rear, or west, side of the building. The trench bisects a bricked-in area which may be a basement window. Excavation revealed a window box of brick. This window was found to be an original. The reason for this statement is the fact that the header course of brick is placed to frame it which is typical of Mormon period architecture. Another reason is it rests on a historic grade also. The window had a box but only the bottom parts remained. "The window is 2.6' by 1.92'. The south edge of the window is 3 feet from the edge of the south wall. Elevation of bricks: bottom - 94.76'; top - 94.92'; and window sill - 95.73';" (Berge 1970).

Basement Window

Trench #3 also bisects a basement window. The possible window appears as a cemented area on the north side of the building. Digging revealed a lot of brick rubble on the outside and a hole made into the

wall. This window is on the north side of the building.

Basement Window

Trench #4 is located on the east side, or front, of the building. It also bisects a basement window. The window, when located, proved to be made of neatly laid brick with the headed coarse placed to frame it. It was protected by a brick window box. This window is an original and was built the same as the one in Trench #2.

Basement Window

Trench #5 was located on the south side of the house by a basement window. It was dug in order to locate a window box. No evidence of a window box was found. This window was not an original. Evidence to support this statement includes the fact that it had been broken into the wall. The bricks were broken off to place the window in and there were no header bricks to frame the window.

Front Porch

On June 9, 1970, the crew trenched for the footings in front of the east door. Pieces of purposely laid limestone were apparently used for footings for the front door porch, or stoop at the top elevation of 96.16'.

The Cellar or Basement

The debris was cleaned out of the cellar first, and under that was found about $\frac{1}{2}$ inch of sand. Under the sand was a layer of brick or mortar rubble from the construction of the building. No brick floor was found in the cellar. The brick rubble was laying on top of the undisturbed soil.

The walls of the cellar contained no stone footing. The brick walls were laid directly on the sterile soil. The elevation of the bottom of the brick foundations is 92.36'.

A fireplace was found in the north wall. Its dimensions are 5.07' x 1.20'.

Additions on the West and North Sides

A wall was placed to the back or west side of the building to support a post-Mormon addition. An earlier wall made of neatly laid limestone with bricks on top was found paralleling the newer wall. It extended west from the northwest corner of the building and was labeled as Structure 2. In the rubble were found many artifacts which appeared to date to the Mormon period. The feature in the north wall appears to have been an oven for this north addition. This feature is arched to a point at the top. This structure measures 2.6' and the base is 1.72' high. The oven just described seems to have been tied into the fireplace in the cellar. The older addition was probably a kitchen. Evidence to support this are the artifacts such as ironstone dishes and glazed earthenware, which could date to the Mormon period. These are the type of domestic items which would be expected to be found in a kitchen.

Outhouses

A search was made to find outhouses behind the house. Outhouses were found in trenches #2, #3, #4 and #6.

Outhouse #1. This structure had limestone footings. It seems to have the earliest artifacts.

Outhouse #2.Outhouse #3.

Outhouse #4. This structure had limestone footings. There were a lot of early artifacts found here.

Outhouse #5. Excavation had to stop before it was completed in this outhouse because it was too recent. It was lined at the surface with a metal ring.

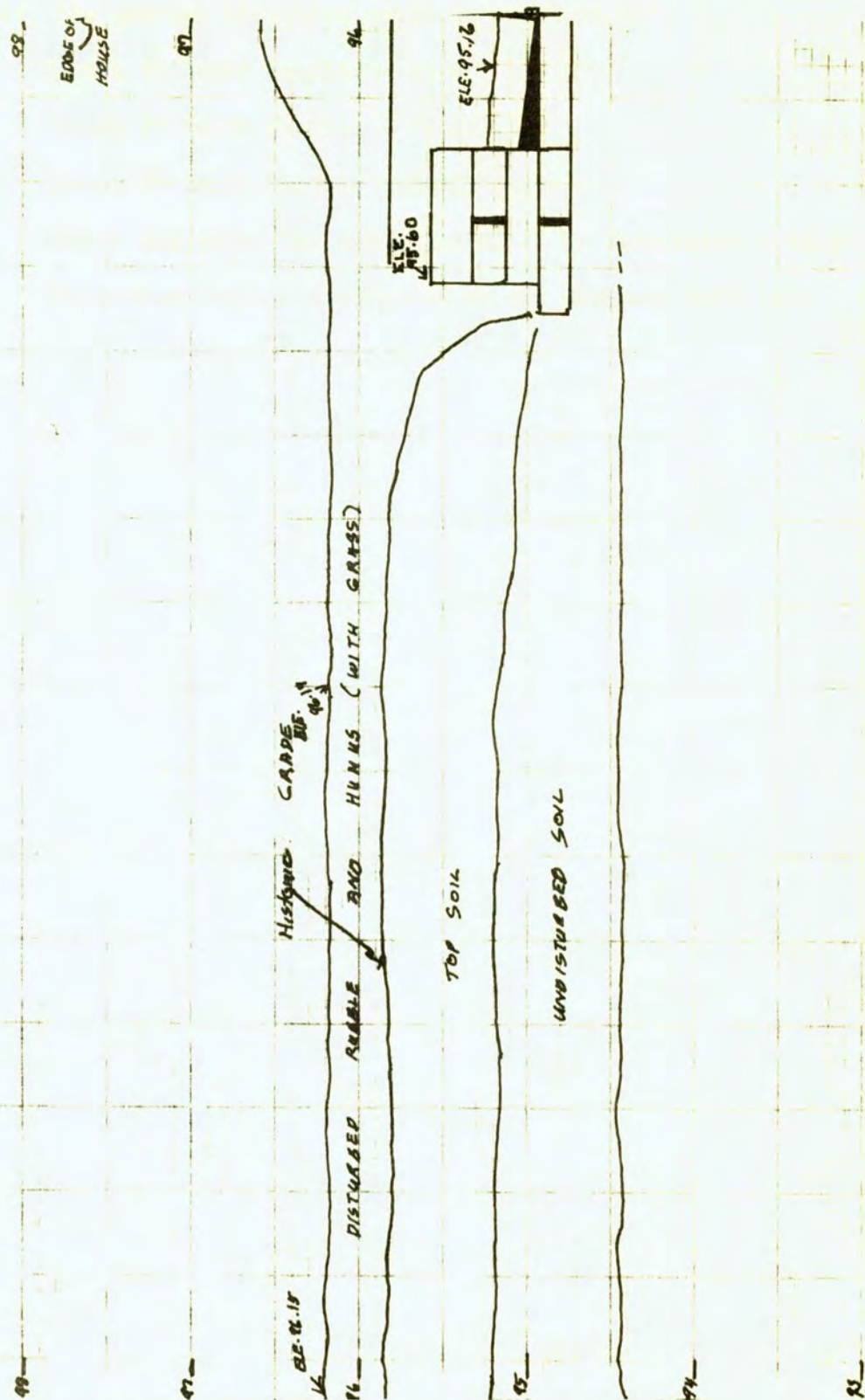
Cisterns

Trenches were dug in the northwest and southwest corners of the house for possible cisterns. No cisterns were found.

NATURAL FEATURES

Stratigraphy

A number of brick bats were found just below the layer of soil labeled historic grade in Figure 5. Brick bats are the ends of bricks which are broken off to even up edges of walls when brick laying. The brick bats extend all the way around the house, "except in areas where the ground has been later disturbed." (Berge 1970) or where the bulkhead and window boxes are found. There was no historic building on the property before the Mormon period; therefore, the area above the brick bats must be the original historic grade or Mormon level of occupation, since the soil below the brick bats contained no historic human remains (Fig. 5). The historic grade is about 95.85' in elevation. The historic grade varied slightly in elevation from one part of the site to the other, as can be seen from the different elevations listed below,



Subject: Trench 4, South Profile, Recorded by: Berge, 6-9-70

Figure 5. Stratigraphy

however, the average elevation would be about 95.85'.

Trench #1 South Profile - 95.6',

Trench #2 North Profile - 94.31',

Trench #4 South Profile - 96.19',

Trench dug under the direction of J. C. Harrington - 95.5'.

The archaeological excavation at the Chauncey Webb site required 136 man-hours to complete.

Chapter 5

DESCRIPTION AND ANALYSIS

During the summer of 1970 while excavation was going on at the Chauncey Webb house site much of the preliminary work was done with the artifacts from the site to prepare them for shipment to Brigham Young University's archaeological laboratory.

Following the arrival of the artifacts at Brigham Young University, the author undertook the project of writing a site report on the Chauncey Webb House site and also restoring, describing and analysing artifacts found at the site.

CERAMICS

In doing the laboratory analysis, the pottery was laid out according to bag or box number. This number corresponds to a provenience as recorded by Dr. Berge during excavation. The boxes were then organized on the tables according to trenches. Then each sherd was labeled, with India ink, according to its site number and box number. An example of this is the number 127-4CW/71. Following the labeling, the sherds were fitted and glued together with Elmer's Glue-All glue. After as many as possible of the sherds were glued together, the most complete pottery vessels were restored by filling in the empty spaces with plaster of paris. Then the hardened plaster was filed and sanded to conform to the original shape of the vessel. With the previous steps completed, the pottery was organized according to ware,

type, and variety. A sherd count was taken according to level and ware, type and variety. The trade-marks were researched in reference books to find out who the manufacturers were and at what date they made the particular pieces of pottery which bore the trade-marks.

Terminology

At this point there are some terms which should be defined:

Ceramic enameling. In painted or printed patterns the colors are applied on the surface of the fired glaze and then the colors are fixed to the glaze by fusion at a low heat. In order to fuse the enamel to the glaze, the colors are mixed with a large portion of fusible glass.

Cobalt blue. Artistically speaking, this is a blue material made from a mineral and is used for underglaze vessel decoration. Chemically it is known as cobalt oxide and can withstand intense heat without burning up.

Cornish stone. This is a name given a temper derived from feldspar and added to kaolin.

Feather edge. Feather edging is a decoration consisting of either incised and/or painted lines placed perpendicular to the edge of the rim of a vessel. It can also be described as lines which are slightly curved to wavy rather than being stiff parallel lines.

Frit. This term is used frequently to indicate any special glass made by potters for use in glazes, an example is alkaline frit.

Gilding. This technique is used quite extensively by porcelain makers. It is the decoration of ceramics using metallic gold.

To accomplish this, the gold is fused into the vessel by using a lower heat after the glaze has been applied.

Glaze. This is a plumbiferous (lead sulphide material) or an alkaline coating which is fired onto absorbent soft paste vessels. This process makes the vessels non-absorbent. The glaze can be made clear or colored by adding oxides of various types.

Kaolin. Kaolin is used in hard porcelain manufacture and is a pure white clay of very fine texture.

Paste. This term refers to the vessel clay in both the unfired state and the fired state of the clay body in the vessel.

Shell edge. A common type of rim decoration used over the span of the nineteenth century and commonly found on transfer-printed plates was the shell edge or feather edge. The edge of a dish was decorated with a wavy relief element like that of the edge of a pie crust which has been smashed with a fork. The low relief areas were then painted with dark blue pigment while the raised areas remained white. Attempts to copy this design technique were made. The same painted element has been found but not in relief (Berge 1968:92).

Slip. A slip is clay, when in a thick fluid state, applied to a formed vessel and fired with the first firing. Decorations can be made with it by lumping it on the surface or by applying it flatly over the surface.

Temper. Temper is a term which stands for an agent which, when added to the clay, gives the clay greater strength and better drying

capacity. It is usually ash, sand, or pulverized stone.

Transfer-printing process. This term refers to a process of decoration or design application. It begins

. . . with engraving a design on a thin copper plate which has been prepared by hand-texturing with a battery hammer. The engraved plate is warmed and coated with a prepared ink color. The color is rubbed into the incised lines with a wooden tool and any excess removed with a knife. The plate is then wiped with a pad, leaving color in the incised lines. A thin strong non-absorbent tissue paper is laid over the prepared copper plate and subjected to pressure so that it receives a clear impression of the design. Next the paper is peeled from the copper engraving bearing a perfect imprint. This inked impression is laid over the vessel and rubbed gently with a flannel. Next the paper was gently peeled off the vessel. The freshly designed vessel is then fired to keep the clear sharp lines intact for a subsequent firing after the glaze is applied over the color.

This technique of design application produces a ware which is easily identified by the sharp single unit design which cannot be felt through the glaze by finger touch (Johnson 1971).

Type. Type has certain temporal and spacial limitations. It is flexible, it can be subtracted from, added to, or eliminated.

The type is the sum total of all immediately related expressions of variation recognized by the analyst. The type may also be considered a cultural abstraction for which there is rarely a single manifestation; it is usually represented by several or more varieties which together show the full range of attributes (Matheny 1966:73).

Types often can be found in more than one sequence ceramic complex, "if minor modifications occur the more recent ceramic unit entities are called varieties" (Matheny 1966:73). Types show the same vessel form, rim, style, past characteristics, colors, and surface finish with modifications.

Variety. It consists of "attributes or modes and clusters of these. The several varieties of a type taken together show the range of modal variation, areal distribution, and temporal distribution of

that type. The variety name is a combination term using the prefix and a descriptive term along with the word 'variety.' For example, Xicalango Red; Lustrous Variety (geographic descriptive-descriptive)" (Matheny 1966:74).

Ware. This term includes any number of different ceramic types and varieties which exhibit certain technological similarities. It is not limited by time, space archaeological phase, stage or period. "Further, it does not necessarily suggest cultural affiliation among constituent elements" (Matheny 1966:72-73).

Classification

In classifying the pottery found at the Chauncey Webb site, the main references used were Berge (1968) and Johnson (1971). For other references look in the Bibliography.

In discussing the classification of the Chauncey Webb pottery with Dr. Dale L. Berge it became evident that it is very hard to distinguish such characteristics as porosity without the proper equipment being available. In classifying pottery, it was decided that instead of using type-variety names, which may correspond to type variety names coined by someone else, a system of numbers and letters would be used. An example of this would be the designation Earthenware Type 1 variety a. Berge (1968) divided his historical ceramics from Arizona into wares, types, and varieties according to their "body or paste type, glaze characteristics, and decorative techniques" (Berge 1968:96). These criteria are the same ones employed in classifying the ceramics found at the Chauncey Webb site. A description of the wares, types, and varieties found at the Chauncey Webb site follows.

Earthenware

This class includes those vessels whose bodies are non-vitreous, opaque, and require a glaze for domestic use. They also use natural-colored pastes. Types and varieties were separated in this ware into groups by body parts and surface treatment. The sherds were grouped into types according to whichever attribute category seemed to be the most important and all-encompassing. Any other attribute whether it was paste, color, or glaze was subsumed underneath in variety.

Type 1. The body pastes range from cream color to a reddish color. This unusual type includes the earthenware vessels which have a dark brown glaze, usually it is on both the exterior and interior walls (Ramsay 1930:20).

Variety a. This variety is covered with a lead oxide glaze which produces a metallic luster finish. These glazes often contain iron salts or manganese which produces a dark brown mottling. This is a fairly thin-bodied and fine variety and was reproduced from molds (Photos No. 8, 9, 10).

Variety b. The surface coating of this variety lacks shine or gloss, is either metallic or glassy and is dark brown in color (Berge 1968: Fig. 26d).

Variety c. This clay, when added to a lead glaze or alone turns a bright, transparent dark brown. In this variety the slip-glaze fills in the uneven areas on modeled or irregular surfaces to form a smooth surface which may appear mottled due to its transparency (Ramsay 1939:143).

Type 2. The attributes which define this type are the paste, color, and glaze effect. The paste is only slightly porous due to its firing. The paste fires very hard and is buff in color. The porosity and hardness varies. The color of the vessel walls is intensified by the clear alkaline glaze which is applied. The vessel walls appear to be a buff-yellow in color (Ramsay 1939:23).

Variety a. In this variety, the interior surface treatment shows a glaze covered with splotches, streaks or specks of dark and light shades of the same color or various colors. The exterior may or may not be mottled (Photos. No. 11 and 12).

Variety b. This variety retains the characteristic light yellow-buff body with the buff colored interior and exterior.

Variety c. An ultramarine and bird's egg blue glaze exterior and a white glaze interior distinguish this variety from the others.

Variety d. This variety is set apart by its dark brown and white bands appearing on the yellow exterior of the body of the vessel.

Variety e. A bright yellow glaze on the interior and exterior identifies this variety.

Type 3. The paste, at times, may range from a mustard yellow and reddish brown to deep brown black but more often it is a light buff color to cream. Often the glaze has been absorbed by the body and as a result the surface contains small pinhead-sized holes. Type 3 is confined to heavy, plain utilitarian vessels. In the early days, this

type was used in the dairy, buttery, and cellar but not in the kitchen. It has an irregular, stony appearance. The body is almost completely vitrified because it was fired at a high temperature (Ramsay 1939:18, 139).

Variety a. The blue exterior surface decoration of this variety makes it distinctive. "It appears that a sponge was dipped in blue pigment and daubed on the white enamelled surface in no specific pattern" (Berge 1968:134).

Type 4. The characteristic surface treatment of this type is accomplished when the exterior glaze is covered with splotches, specks, or streaks of dark and light shades of the same color or various colors. This decoration is called mottled (Photos No. 11, 12). The interior does not necessarily have to be mottled.

Type 5. The same clays used in making common red brick are used in this type. It becomes a red-brown color with a soft and porous paste when fired at approximately 1700 degrees Fahrenheit. It is highly porous and one's tongue sticks to the paste when touched. Lower firing temperatures produce an orange color while a higher temperature produces a burnt-red body color. A lead glaze, when applied to the vessel produces a dark brown to black surface. Salt glaze or Albany slip are sometimes used but most often colored enamels are employed. Decorations may appear as spots, streaks, or speckles with no specific pattern. Decorations are also accomplished by tracing a design in light-colored clay on the natural red body or by incising the soft clay (Ramsay 1939:8, 15).

Table 1

Earthenware Ceramic Distribution

LEVEL	Type Variety		1c	2	2a	2b	2c	2d	2e	3	3a	4	5	6	7	8	9	TOTAL
	1a	1b																
Surface	9	4						1	9	3						10		36
Level #1	67	22	4	7	1	6	22	7	10	33	2	11	18	20	5	27	3	265
Level #2	13	7	1	7		2			3	34		2	2	2	2	3		78
Level #3	1		1	2											1			5
Level #4	1	1								1								3
Level #5												2						2
Level #6												1			1	7		9
Inside Structure #2	9			4	2	1		4	3	1	2		7	1	1	1	1	37
Basement Upper Fill															1			1
Basement Original Floor	4	1							1									6
Trench #2, Inside																		
Outhouse #1	9	7		4						1					2	32		60
Trench #3, Inside	*																	*
Outhouses #2 and #3	8	1		2						3								14
Trench #4, A, Inside																		
Outhouse #4	2	1		1				1						2		1		8
Trench #4, B, Inside																		*
Outhouse #4												1			1			2
Trench #6, Inside																		
Outhouse #5	2			1						1								4
Trench #9, A, Inside Bulkhead	1			1														2
TOTAL	126	44	6	29	3	9	22	13	26	77	4	17	27	25	18	82	4	532

*Each * represents one (1) complete article in addition to the sherds.

GRAND TOTAL of Pottery for Site 172-4b: 2,251 pottery sherds plus 4 plates, 3 pots, 1 bowl, 1 cup and 1 spittoon.

Photo 8. Pottery, Earthenware, Type 1, Variety a.

Photo 9. Pottery, Earthenware, Type 1, Variety a.

Photo 10. Pottery, Earthenware, Type 1, Variety a.

Photo 11. Pottery, Earthenware, Type 2, Variety a.

Photo 12. Pottery, Earthenware, Type 2, Variety a.

Photo 13. Pottery, Whiteware, Type 1, Variety a.



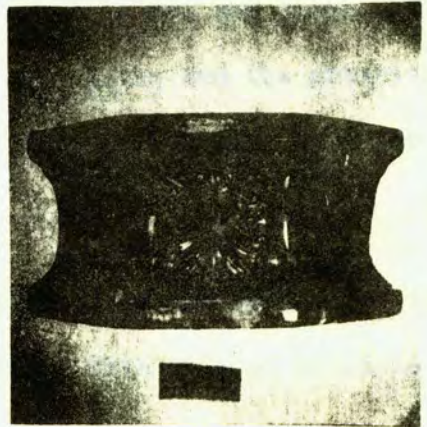
8



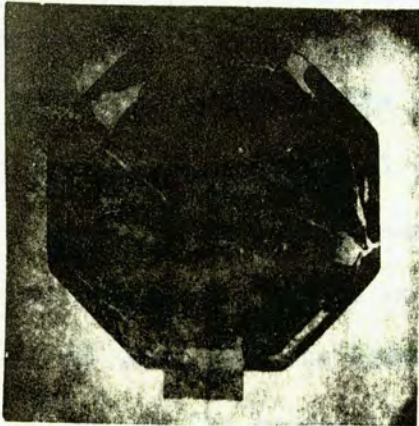
9



10



11



12



13

Type 6. Biscuit type is decorated by such means as modeling, incising, pressing designs from a stamp, or molding. This type lacks glazing, slipping, enamelling, or any other kind of surface covering. These vessels have had an initial firing.

Type 7. This type is distinguished by its surface treatment. Rather than a glaze, a colored slip is applied to either the interior or exterior or both surfaces (Bemrose nd:9-11).

Type 8. A coarse iron oxide clay was used to make this type of pottery. The typical type was coated with a yellowish brown or light green glaze. It was decorated with dark brown leaves and lines. The interior surface was glazed on the bowls and plates and the exterior surface of storage vessels and jars were glazed. Usually, only the exterior or interior surface was glazed.

Type 9. The homely copper lustre found on the surface of this type of vessel was accomplished by applying a thin film of metal to the pottery (Bemrose nd:13-15).

Earthenware ceramic distribution. All of the pottery sherds were counted by ware, type, and variety. These sherd counts were placed in Tables 1 through 4. The newest type-varieties found at the site would be found in Levels #1 and #2, and the surface which covers the top foot of soil. These type-varieties are 2a, 2b, 2c, 2d, 2e, 3a, 5, 6, and 9. Type-varieties 1c and 2 were found in Level #3. Type 3 was found in Level #4. The oldest type-varieties which were found in Levels #5 and #6 and the basement's original floor were 1a, 1b, 1e, 4, 7, and 8. The fact that all type-varieties were found in Structure 2 probably indicates that it existed for a long time and that the material had

been deposited in it over a period of time. The information gained by using different type-varieties of earthenware as key date indicators verifies information already gained about the outhouses from other ware distributions mentioned later in this section.

Whiteware

Three main characteristics which separate whiteware from porcelain, stoneware and earthenware are: (1) The whiteware as opposed to earthenware is sharply better in fineness of quality and the body surface is always dirty white to brilliant white in color. (2) While porcelain is translucent, the vessel body of whiteware is always opaque. (3) Stoneware is usually undecorated while the vessel surface is almost always decorated in whiteware. In this thesis, whiteware is divided into type and variety according to surface decoration, since it would be impractical to divide it into minute categories of variation of paste color from pure white to cream color.

Type 1. A cream color surface decoration distinguishes this strong type (Towner nd;1-2).

Variety a. A pale white or ivory surface color is produced in this variety by using china clay and china stone along with a china glaze. Even though this variety appears plain it is still distinctive from stoneware because of its color and thinness (Photo. No. 13). For a trade-mark see Figure 6a.

Type 2. This type utilizes a decoration placed on the vessel by the transfer process. Varieties are designated by the color of the decoration, generally (Photo. No. 14).

Variety a. A blue color of decoration is the most popular variety of the transfer type. This is especially true of the famous willow pattern (Photo. No. 14).

Variety b. Flown blue is a somewhat blurred effect acquired during firing in a volatile chloride atmosphere (Photo. No. 15).

Variety c. This variety has a decoration on the edge or the rim area with a feather-like or shell-like relief.

Variety d. It has a blue stippling decoration.

Variety e. It has a red decoration.

Variety f. It has a purple decoration (Bemrose nd:23).

Variety h. It has a brown decoration (G. Vivian 1965:129-130).

Variety i. It has a black decoration. It was called "Jet-Enameled Ware" by Mankowitz and Haggar (nd:118).

Variety j. It has a polychrome decoration.

Type 3. This type is made by hand painting either over or under the glaze. This type was designed for the lower-class people (Bemrose nd:9).

Variety a. Folk scenes are produced by hand painting with bold brush strokes.

Variety b. Colored lines or bands were applied to the white body of these vessels using one finger as a guide for the freehand

Table 2

Whiteware Ceramic Distribution

LEVEL	Type Variety		2b	2c	2d	2e	2f	2g	2h	2i	2j	3a	3b	3c	3d	3e	4a	4b	4c	4d	4e	4f	4g	TOTAL	
	1a	2a																							
Surface	1	35	14	5	5	2	1	1	10	13		11	9	1	1										109
Level #1	15	45	40	10	17	2	1	2	1	4	23	38	43	10	2	1	33	1	3	3	12	3	9		318
Level #2	2	21	11	2	4	2				3	3	3	12	17	6		22							10	118
Level #3						1																			1
Level #6	1	2	4			2			1	1			5												16
Inside Structure #2	1	34	10	7	3	7			5	9	1	5	5	14	3		1	1							106
Basement Upper Fill									1			1													2
Basement Original Floor			5			2			1			1	2				1							1	13
Trench #2, Inside Outhouse #1		2	13	2					1	1		1	2	2	1										25
Trench #3, Inside Outhouse #2 and #3		3									1	1					1						4		13
Trench #4, East of Outhouse #4	3	1														1	2					1	1		9
Trench #4, Inside Outhouse #4												1	1												2
Trench #5, Inside Outhouse #5		2															1								3
Trench #9, A, Inside Bulkhead		1																							1
TOTAL	26	143	97	26	29	18	2	3	23	31	28	69	85	34	7	2	64	2	3	3	12	4	25		736

Each * represents one (1) complete article in addition to the sherds.

Total complete: 3 plates, and 1 bowl.

+An additional 1½ plates.

Photo 14. Pottery, Whiteware, Type 2, Variety a.

Photo 15. Pottery, Whiteware, Type 2, Variety b.

Photo 16. Pottery, Whiteware, Type 4.

Photo 17. Pottery, Stoneware, Type 1, Variety a.

Photo 18. Pottery, Stoneware, Type 2, Variety e.

Photo 19. Pottery, Stoneware, Type 2, Variety b.



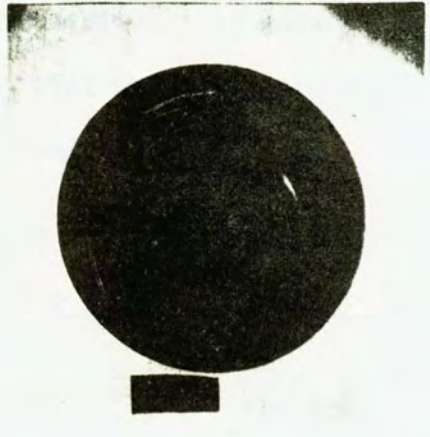
14



15



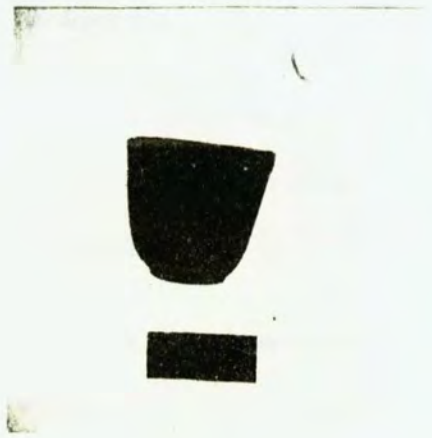
16



17



18



19

style. The potter produced these bands by placing the circular vessel on a wheel which was spun. The potter's hand was steadied by an adjustable rest while the brush he held, which was loaded with pigment, applied thick glaze to the turning vessel surface (Hughes 1956:15).

Variety c. A banded edge is its only decoration. Some vessels contain no other decoration than a simple drawn blue line around the rim.

Variety d. Simple black lines are used on the vessel edge. The simple or multiple black lines on this variety occur at places on the vessel where there is a distinct break in the body shape or along the rim.

Variety e. A wide band of blue color is present on this sherd as well as a painted flower.

Type 4. This type has gilded decorations consisting of geometric stylized leaf, gilded stylized leaf around the rim, flower decoration, feather edging and gilded bands around the edge of the vessel (Photo. No. 16). For two trade-marks see Figures 6b and 6c.

Whiteware ceramic distribution. All of the whiteware sherds were counted by ware, type, and variety. These sherd counts were placed in tables. Refer to Table 2.

In whiteware the sherd count indicates that the type-varieties 2f, 2g, 3d, 3e, 4b, 4c, 4d, 4j, and 4f were comparatively modern manufacture since they were found only on the surface level and in Level #1. Type-varieties 2a, 2b, 2e, 2h, 2i, 3a, 3b, and 4g seem to be the oldest pottery remains since they were found in Level #6 and the

basement's original floor level. With these oldest type-varieties as indicators of Mormon occupation it appears that Structure #2 and Outhouse #1 are the oldest and would date from the Mormon period. Outhouses #2, #3, and #4 would date soon after.

Stoneware

Three main characteristics which separate stoneware from earthenware, whiteware and porcelain are as follows: (1) Stoneware does not need a glaze in order to render it useful for domestic use as does porous earthenware. (2) Unlike whiteware the vessel surface is rarely decorated with any type of colored design. (3) The broken sherd edge of stoneware is always more opaque and granular than that of porcelain.

Stoneware is probably the most common dishware found in sites of early America. It is fired at high temperatures and is made from fine, dense clay (Ramsay 1939:17).

stoneware, like whiteware, has an entire range of white paste colors. And again, like whiteware, stoneware types and varieties are not determined by pastes. Glaze characteristics are used. Even then, only the extremes of glaze color are actually identifiable.

Type 1. The glaze is a pastel color in this type.

Variety a. It has a pastel yellow glaze (Photo. No. 17). See Figure #7f for its trade-mark.

Variety b. It has a pastel green glaze.

Variety c. It has a pastel blue glaze on the body of the vessel with a molded double line decoration running around the inside

Table 3
Stoneware Ceramic Distribution

LEVEL	Type Variety 1a	1b	1c	1d	1e	2a	2b	2c	2d	2e	TOTAL
Surface						92	5				97
Level #1		15	3	2	1	392	34	1	1	2	441
Level #2		1	2			70	10	1		1	85
Level #3						1	1				2
Level #5							2				2
Inside Structure #2		2			1	180	8				191
Basement Upper Fill						3	2				5
Basement Original Floor						21	4				25
Trench #2, Inside						26	6	3			35
Outhouse #1											
Trench #3, Inside									1		16
Outhouses #2 and #3						14	1				14
Trench #4, A, Inside						14					14
Outhouse #4											
Trench #5, A, Outside										1	1
Outhouse #5											
Trench #6, A, Inside						1	+				1
Outhouse #6											
Trench #7, Inside						14	1				17
Outhouse #5			2								
Trench #7, A, Inside Bulkhead						4					4
Unknown							1				1
							+				+
TOTAL	*	18	7	2	2	882	75	5	2	4	937

*Each * represents one (1) plate.

+Each + represents 1/2 cup.

rim of the vessel.

Variety d. This variety has a red glaze with parallel molded lines running vertically up the body of the vessel and parallel horizontal lines running around the exterior of the neck of the vessel.

Variety e. It has pastel green glaze on the thick leaf molded design.

Type 2. Sometimes called Ironstone, this type was inexpensive, durable, and the most abundant type of ceramic found in the nineteenth century American sites. It is essentially utilitarian as can be seen from its thick, dense, and heavy body. Pastel colors range through white, yellow or gray tinge, to blue tinge (Ormsbee 1959:78).

Variety a. The paste is usually not as thick as variety b, but it is very strong and is cream-colored. For two trade-marks see Figures 7a and 7d.

Variety b. This "originally cream-colored ware was tinted with cobalt to produce a pale bluish-gray surface color which was covered with a clear glaze" (Johnson 1971:37). It is sometimes called Pearl variety (Photo. No. 19). For two trademarks see Figures 7b and 7c.

Variety c. This variety is identified by its raised molded lines which run vertically up the body of the vessel and curve horizontally when reaching the neck of the vessel.

Variety d. It has a thin brown band around the inside of the body.

Variety e. Basically it is similar to variety a. This variety has a gilded line on the edge (Photo. No. 18). See Figure 7e for its trade-mark.

Stoneware ceramic distribution. The newest stoneware type-varieties would be found in Level #1, or the top six inches of soil. These type-varieties are 1d, 1e, and 2d. Type-varieties 2a and 2b were found scattered in all levels as seen in Table #3. All of the rest of the type-varieties in stoneware were found in Levels #1 and #2, and surface, making them a little older than those just mentioned, which were just in Level #1.

Porcelain

Porcelain is separated from stoneware, whiteware, and earthenware by its characteristics of: (1) translucent and extremely hard body; (2) conchoidal fracture in breaks; and (3) high surface vitrification. These characteristics are produced by the use of pure white china clay (Kaolin) mixed with ground glass or cornish stone as tempers combined with extremely high firing temperatures.

Porcelain is generally divided into two groups; (1) hardpaste types, and (2) soft-paste types. The basic difference is hardness of body and materials used in the paste. Hard porcelain is always a mixture of china clays and tempers while soft porcelain is ground glass stiffened with white clay and a temper of bone ash, (Bone China) soapstone, or feldspar (Godden 66;XVII).

During the 18th century, attempts to duplicate hard chinese porcelain produced an imitation frit composed mostly of white sand, gypsum, soda, alum, salt and nitre which were melted into a mass and pulverized, then added to clay (Hughes, 1956;125) (Johnson 1971;40).

At the Chauncey Webb site porcelain types are divided by the attributes of paste while the varieties are designated by surface

decoration.

Type 1. Except for its minute pin holes on the surface, this type would be inseparable from the hard-paste group. This type was made by the English. It is a soft-paste porcelain which reaches the whiteness and hardness of the hard-paste group.

Variety a. This type is plain white and undecorated.

Variety b. The decoration on this variety is made up of gold-gilded line designs appearing anywhere on a white body.

Variety c. The decoration in this variety consists of polychrome decoration applied over and under the glaze. The decoration under the glaze consists of lines and stylized plants on the interior and exterior surfaces. A delicate flower decoration appears on the interior surface over the glaze.

Variety d. A blue decoration consisting of a flower in a circle sets off this variety.

Type 2. This type is called bone type and differs from other hard paste in that the paste has a slight yellow or gray tinge, or cream color (Spargo 1938b:16).

Type 3. This type seems to be fairly recent. It has a trademark which says that it is "Made in Germany" and has a polychrome decoration (Fig. 8b).

Type 4. This is a type commonly called China.

This is the hardest of the true porcelains. In most cases the painted or gilded decorations are applied over glaze, then refired

Table 4

Porcelain Ceramic Distribution

LEVEL	Type Variety											TOTAL
	1a	1b	1c	1d	2	3	4a	4b	4c	4d	5a	
Surface	3				3		5		1	1		13
Level #1	10	3	1	1		3	13	16			3	50
Level #2	4	2					8	3				17
Inside Structure #2	1											1
Basement Upper Fill		1										1
Trench #3, Inside Outhouses #2 and #3						3		3				6
Trench #6, Inside Outhouse #5							1					1
Trench #9, A	1											1
TOTAL	19	6	1	1	3	6	27	22	1	1	3	90

at low heat, since they would otherwise burn away if exposed to the intense heat require [sic] to fire the clay. This is always true of enamel decorations. Fresh surface breaks are non-absorbent due to the fusing of clay occurring in the firing. Clear glazes are commonly used over the usually glassy surface. Originally most of this type came from China, but the 19th Century English hard porcelain had become nearly as good in quality as that of China, thus most importations ended (Johnson 1971:40).

Du Boulay states that the United States' trade with China did continue and the use of American motifs increased around 1800 (Du Boulay 1963: 110).

Variety a. This variety is white and plain. It is undecorated except for random molded lines.

Variety b. Enamel designs are painted on the already fired vessel, then the design is baked into the vessel. The colors are polychrome. After a time, most of the enamels tend to wear off a little. The designs appear to be mostly flowers. For a trade-mark see Figure 8a.

Variety c. Gold-gilded line designs on a white body characterize this variety.

Variety d. A clay slip applied on the surface of the vessel produced this blue in color positive relief of stylized vine design on an otherwise white body.

Type 5. This porcelain is extremely glass-like. It has a perfect conchoidal fracture. None of the sherds are transparent, while glass sherds are.

Variety a. This variety ranges from a brilliant white to a milky white. It also contains a molded design of overlapping

WHITEWARE

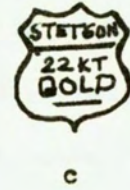


Figure 6. Trade-marks

crescents on the inside vessel surface.

Porcelain ceramic distribution. Judging from the fact that all of the porcelain seems to have been found in Levels #1 and #3, and the surface, it would all date from comparatively modern times. Since porcelain was found in Outhouses #2, #3 and #5 this would indicate that these three outhouses were of comparatively later construction (Table #4).

Pottery Marks

Pottery hallmarks or trade-marks are a specific and a valuable method of dating in historic sites. Dating with trade-marks is difficult because one must establish an identification of the company who made the mark and then date the period of time that the firm was in operation. Since historical pottery usually has a trade-mark on the vessel base, many sherds are undatable unless an extensive paste analysis is run on it to determine its content and origin.

Whiteware trade-marks. For the whiteware, trademarks from the Chauncey Webb site see Figure 6a. The first mark (a) has the word "HARKER" and 1840. The Harker Pottery Company was incorporated at East Liverpool, Ohio in 1890. Benjamin Harker, Sr. established the business in 1840; this is when the manufacture of yellow and Rockingham variety was begun. The firm name was Harker, Taylor and Company, from 1847 to 1850 or later. They produced Rockingham pieces. In 1879 white granite and semi-porcelain became the staple products of these works. George S. Harker and Company was the later name. The 1879 date seems to be the correct date for this trade-mark since around this time the company used a bow and arrow with the initials of the company (Barber nd:105).

STONEWARE

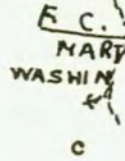
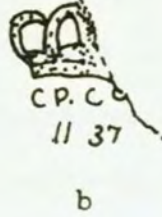


Figure 7. Trade-marks

The second trade-mark (6b) has the word "ALLIANCE" printed among other partial words. This brings us to the William Brunt Pottery Company of East Liverpool, Ohio. This firm, under the name of William Brunt, Son and Company, began operating about 1850. "The William Brunt Pottery Co. (Phoenix Pottery) was incorporated in 1894" (Barber nd:107). Ironstone china and decorated wares are its present products. The crescent, and a parallelogram enclosing the firm's initials were the marks used before incorporation. After the date of incorporation, the British Arms was used on white granite. Among other marks used mainly on toilet and table ware was found the word "ALLIANCE". This would date the trade-mark to after the date of incorporation, which was 1894.

On the third trade-mark (6c) were found the words "STETSON 22kt GOLD". This trade-mark is not listed in any dictionaries or reference books on pottery or trade-marks. This is Whiteware Type 4 variety a on Table #2. This type-variety was only found in the upper foot of soil at the site and in Outhouse #5. This information indicates that this is a new type-variety and therefore may not be old enough to be listed in the reference books used.

Stoneware trade-marks. The trade-marks in Figure 7a and 7d belong to the Meakins. Their story is as follows:

Earthenware manufactures, Hanley; founded by James Meakin at Lane End 1845; transferred to Cannon Street, Hanley 1848 or 1850; removed to Market Street where it was continued by James Meakin, Jr. and George Meakin; made hard 'granit' earthenware, chiefly for American market; in 1859 and the Eagle Pottery was built; the Eastwood Pottery, Joiners Square was acquired in 1887, (it had been established by Charles Meakin, son of James Meakin, Sr.). A scheme of reconstruction, including gas-fired tunnel kilns for bisquit and glost, warehousing, canteens, machinery was started in 1936; the output in 1951 was stated to be 1 million pieces per week, 80% for export (Bernard 1951).

From 1875 to the present the words "ALFRED MEAKIN, ENGLAND" have

been found on their wares (Cushion 1958:270). This would date Figure 7a as being made after 1875. The trade-mark in Figure 7d with the words "HANLEY, J&G MEAKIN, ENGLAND," was used by J & G Meakin after 1891 (Thorn 1965). This information dates Figure 7d after 1891.

Figure 7b belongs to The Crown Pottery Company, Evansville, Indiana. It began operations on October 1, 1891, with six kilns and four enamel kilns. White granite table and toilet wares were its products. One of its marks was a crown with the letters "REX" under it. On various patterns of dinner ware the marks "C P CO." appeared with the marks "REX, REGINA, ROYAL, and JEWEL"(Barber nd:163). It is very possible that the mark "C P. CO.," may have appeared underneath a crown. This mark probably dates after 1891.

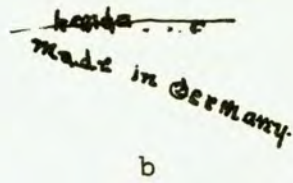
Figure 7e is the trade-mark of the Homer Laughlin China Company, Liverpool, Ohio. The company was established in 1874 (Thorn 1965:133). This trade-mark carries the words "HOMER LAUGHLIN HUD. . . ." written on it. The date for this piece is after 1874.

Figure 7f has the words "OVEN PROOF, MADE IN U.S.A., CAMWOOD IVORY, UNIVERSAL-CAMBRIDGE.," plus some smaller words some of which are not legible. No reference was made to this mark in any of the reference books or dictionaries available. This is a Type 1 of Stoneware which is only found in the upper foot of soil at the site (Table #3). The stratigraphic evidence indicates that this is a new type and may not be old enough to be in the reference books.

The words "MARTHA WASHINGTON" are written on the trade-mark in Figure 7c. Boger (1971) said concerning this mark:

In American ceramics, a porcelain dinner service made in China and decorated with the monogram of Martha Washington surrounded by a gold sunburst and a chain of fifteen links each containing the name of one of the States. Presented to Martha Washington by

PORCELAIN



OTHER CLAY OBJECTS



FUSE

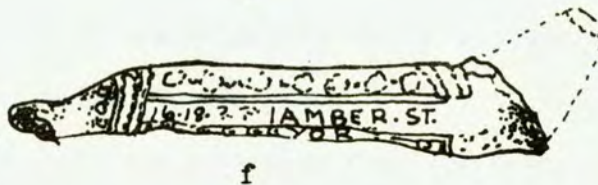


Figure 8. Porcelain Trade-marks and Miscellaneous Ceramic Objects

Captain Jacob von Braam, and extensively copied during the last quarter of the 19th century.

This trade-mark may date to the last quarter of the 19th century.

Porcelain trade-marks. Figure 8a has the words "ST. MARY'S ACADEMY" written on the inside surface. This pottery would be dated after the establishment of St. Mary's Academy, which is mentioned in the section on Nauvoo History, in 1874.

The trade-mark in Figure 8b is written in English and says "Made in Germany." There is also some writing in German which is badly destroyed due to the vessel breaking through the middle of the inscription. The Encyclopedia Americana (1972:586) says that Germany was united as a nation for only 74 years of its history. (That is, a nation in the modern sense.) It was united from 1871 to 1945. Between the years 1945 and 1949 Germany was divided into four occupation zones, controlled by the four powers--The United States, Britian, The Soviet Union, and France. These powers defeated Germany in World War II. This information indicates that this trade-mark was made after 1945 when Germany was occupied by the United States and Britian. This would explain part of the trade-mark being written in English.

Other Clay Objects

Some electrical insulators, a light bulb fixture, and an electrical house fuse were found in the upper two layers of soil indicating a modern period of use (Figs. 8c and 8d). Some china doll fragments were found in modern levels also.

Clay pipe fragments were found in Level #2. Some fragments were also found in Outhouse #1, one of which was a stem with writing on it. The inscriptions on the stem give the partial name and address of

a tobacco company: "TI RILLARD'S TOBACCO, 16.18 YORK" (Figs. No. 8e and 8f). Apparently this company is or was in New York. Even with this information it has not been possible to date the age of this pipe stem from the references available. Since it was found in Outhouse #1, it is possible that this pipe may have been used in the Mormon period. Concerning the dating of pipes especially in the nineteenth century, Ivor Noel Hume said that a complete study is yet to be made, (Hume 19up:308).

Some clay marbles were found in Outhouses #1 and #4, and the surface level. The finding of these marbles in this variety of proveniences indicates that these marbles were used over a long period of time at the site.

GLASS

The procedures in laboratory analysis of the glass artifacts found at the Chauncey Webb site are basically the same as those done in the ceramic analysis. The only difference in the procedures is that the empty spaces were not filled in with plaster as was done with the partial ceramic vessels. For the glass section of this thesis the definition of terms will be done in each sub-section according to that which it pertains. The main reference in this section will be Berge (1968). Berge (1968:179) said concerning the early history of glass making in America:

The year following the landing of Captain John Smith at Jamestown, Virginia, or in 1607, eight glassmakers arrived to establish the first glass factory in the United States (Glass Container Manufacturers Institute 1959:8). In 1739 Caspar Wistar started one of America's most successful early factories. Credited with making America's first flint glass, the Wistar plant produced various glass products until 1780 when it was closed down (Glass Container Manufacturers Institute 1959:9). The failure of the

Wistar glass works was due to the trade depression caused by the Revolution during which time Richard Wistar (son of Caspar who died in 1752) offered much of his land holdings for sale (Knittle 1927:93). Knittle (1927:95) lists five houses considered to be successful early glass houses; Richard Wistar; Stiegel; Bakewell, Page & Bakewell; the New England Glass Company; and J. & R. Fisher.

The last half of the nineteenth century brought many improvements of the bottle as evidenced by the various types of patents applied for. These improvements will be discussed further in the following pages.

Glass Classification

Because the collection of glass from the Chauncey Webb site is small, classification of the collection of glass containers according to their use because of the lack of available materials to establish a typology according to specific shapes or some other typology.

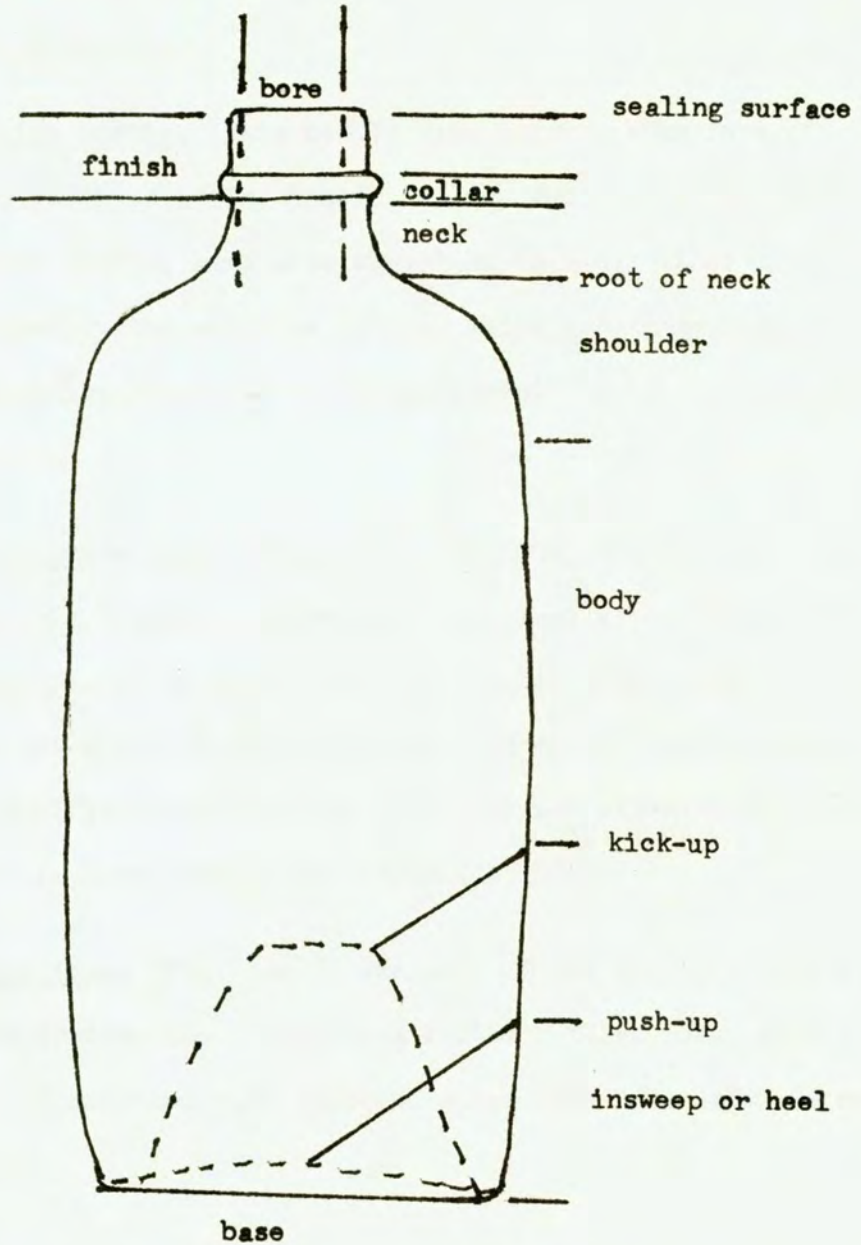
General Glass Bottle Terminology (Fig. 9)

Finish. The "finish" is the section of the bottle from which the bottle contents are obtained. It is attached to the neck and it is the section to which a closure is applied.

Closure. The "closure" is applied to the finish and prevents the contents of the bottle from being spilled or spoiled.

Neck. The "neck" connects the finish to the shoulder and is generally an extension of the finish. The neck is usually the same cylindrical shape and general size as the finish.

Shoulder. The "shoulder" reduces the body diameter to the size of the neck and finish.



(Glass Manufacturers' Federation nd: 1)
(Berge 1968: Fig 59)

Figure 9. Bottle Nomenclature

Body. The "base" is the lowest section of the bottle. It is the section of the bottle which supports the rest of the bottle when the bottle is not in use.

Glass Bottle Typology

Medicine bottle. This bottle type carries some form of medicinal aid, such as pills, liquid, salve, and etc. (Figs. 11b and 12a). Medicine bottles have more varieties than any other types. It is hard to identify the medicine bottles which used paper labels, but the embossed medicine bottles of the nineteenth century are classified quite easily.

Prescription types (Figs. 10a, 10b, 10c, 10d and 11a, 11b) Prescription type bottles are sometimes rectangular or square, but usually they are oval in cross section. Almost always they are made of clear glass, but they are sometimes amber in color. Amber glass preserves the effectiveness of the liquid by not allowing ultra-violet rays to enter as does clear glass (Kendrick 1966:55).

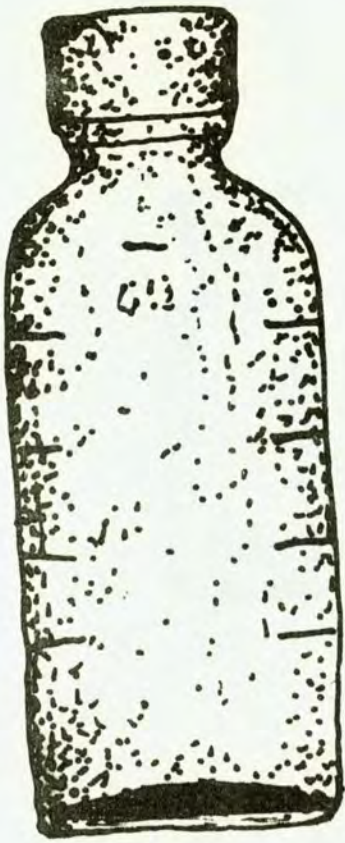
Tablet types (Fig. 11a). The size of the tablet contained in the bottle determines the finish of a tablet bottle. This type of bottle could be confused with those of other uses if a label is not present.

Pomade type. Figure 20a was used for Vasaline and Vicks salves (Fig. 18e); these are the most common types of salve or pomade bottles. In order to easily remove the contents the finish needs to be the wide-mouth variety (Walters 1968:785).

Table 5
Medicine Bottle Distribution

LEVEL	Bottle Types Medicine General	Prescription Type	Tablet Type	Pomade Type	Patent Type	Vial Type	TOTAL MEDICINE BOTTLES
Surface				1	13		14
Level #1	15*	2*		10	319		346**
Level #2					61		61
Level #4					2		2
Level #5					1		1
Level #6					4		4
Basement Upper Fill						1	1
Inside Structure #2		1*			4		5*
Outhouse #1					13	1	14
Trench #3, Inside Outhouse #2 and #3					28		28
Trench #3, Inside Outhouse #3					5		5
Trench #3, Inside Outhouse #2					9		9
Trench #4, A, Inside Outhouse #4					9		9
Trench #4, A, Outside Outhouse #4				1*	4		5*
Trench #4, B, Inside Outhouse #4		1*	1*		45	2*	49***
Trench #6, Inside Outhouse #5	1*				1		2**
Trench #9, A, Inside Bulkhead					1		1
Trench #9, B, Inside Bulkhead					1		1
TOTAL	** 16	*** 4	* 1	* 12	520	* 4	***** 557

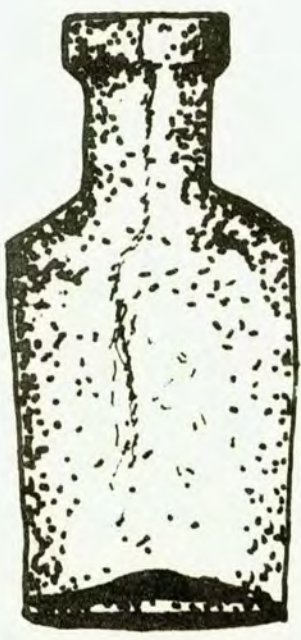
*Each * represents one (1) complete bottle in addition to the sherd count.



a



b



c

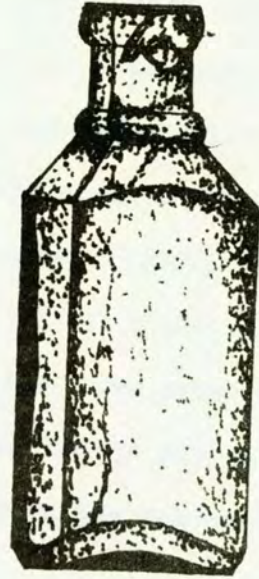


d

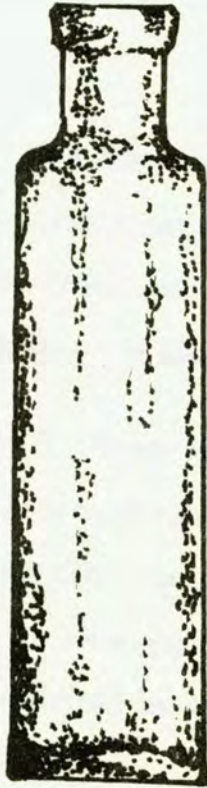
Figure 10. Medicine Bottles



a



b



c

Figure 11. Medicine Bottles

Patent types (Figs. 16j-o and 17c-d). Many types of non-prescription drugs were sold between 1880 and 1910, and earlier. These non-prescription drugs are given the general name "Patent Medicines". The manufacturer of these "medicines" could claim anything about its abilities in order to sell the product (Munsey 1970;65).

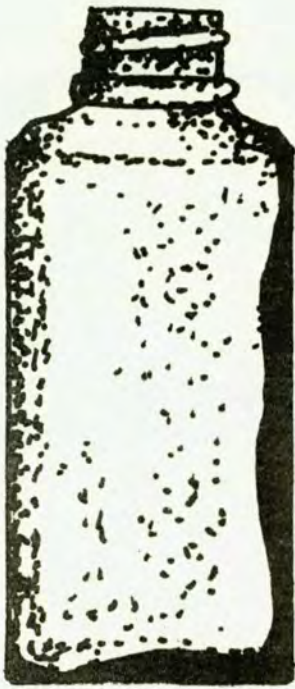
Although patent medicine came in all sizes and shapes of bottles, the panel type was the most popular. The maker's name and the bottle content were usually embossed on the bottle during molding. The bottle was also indented in various shapes during molding.

Vial types (Fig. 11c). Vials are very versatile and their uses are many. The change in vial bottles has been negligible in the last century.

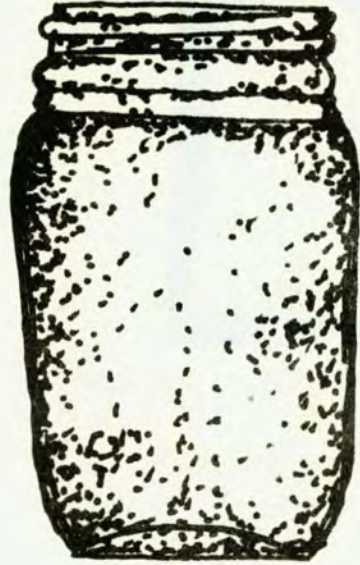
Household bottles. This type includes all the bottles which contain items other than food and cosmetics which are used in the home. Examples of this type are ink (Fig. 161), cigar jars, laundry bottles, bottles holding different types of polish, poison, and oil (Munsey 1970; 120).

Food Bottles (Fig. 12). These bottles are plentiful. There are specifically shaped containers for each type of food which is sold (Berg 1968a). They are essentially the same shape although many companies vary their bottles in some way. Berge says (1968a) that bottle shapes are greatly determined by tradition.

Cosmetic Bottles. "Cosmetic bottles are usually small and in exotic shapes. They are exotic in shape because their contents are supposed to give exotic results." (Berge 1968;317). For those whole cosmetic bottles found at the Chauncey Webb site see Figure 13.



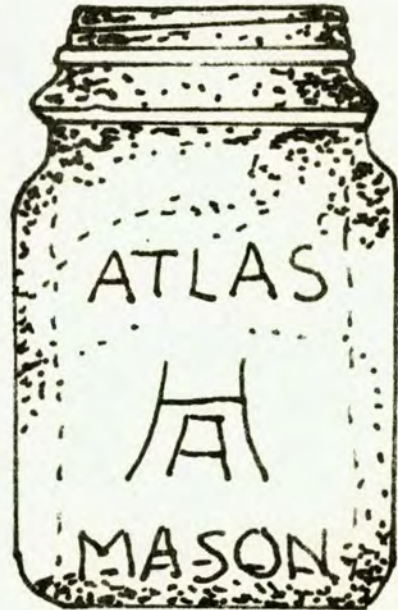
a



b



c



d

Figure 12. Medicine and Food Bottles

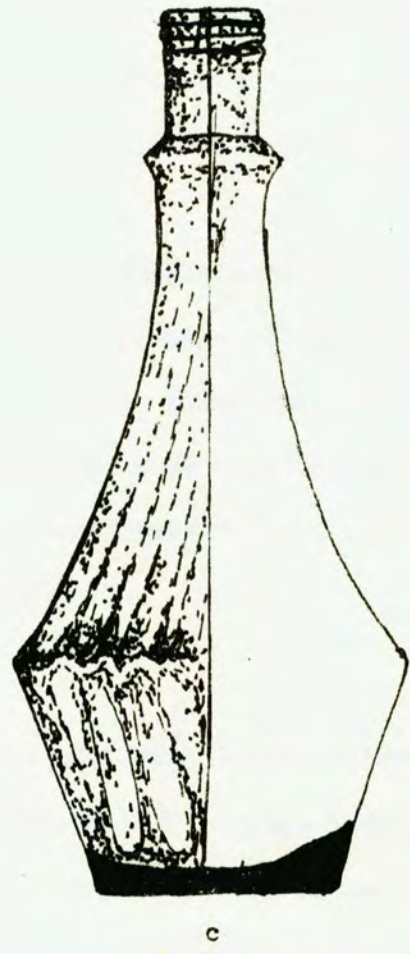
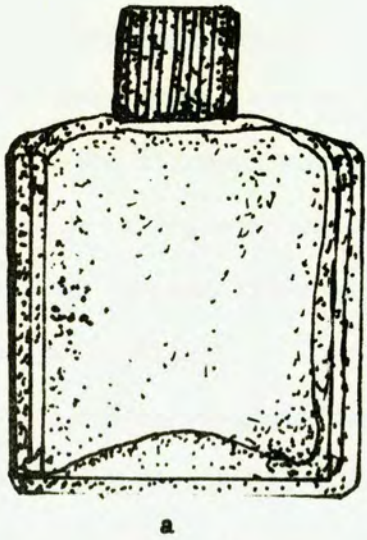


Figure 13. Cosmetic Bottles

Beverage bottles. This type is divided into liquor types, wine types, beer types, and soda pop types.

The standard variety of liquor type bottle found at the Chauncey Webb site is represented by two whole bottles (Figs. 14a and 14b). Flasks of various kinds are also considered in this category (Fig. 17f) (Ferraro 1966:55).

The olive-green color, finish and kick-up base are standard features of wine bottles in the nineteenth century. For an illustration see Figure 14a. (Blumenstein 1965:15).

Beer bottles were fairly uniform in size and shape in the nineteenth century. To prevent loss of beer taste and to keep it from going "flat" beer bottles are usually made amber in color. Several types of closures are available for beer bottles so the finish types vary the most (Table 5).

Soda Pop was made and manufactured usually, just in a local community until after the beginning of the twentieth century. After this time a few of these small firms began to expand. Some of these are familiar brands today such as Coca-Cola, Pepsi-Cola (Fig. 17e), Hires Root Beer, Moxie, and sometime later (in the 1930's) 7-Up came into use (Mansey 1970:105).

Bottle Finishes

Standardization of finish types, meaning exacting specifications, did not occur until 1920 or 1930 (Berge 1968:300). The types of finishes which exist are numerous and to describe all of them would require a vast collection. The types included in this thesis are the ones found at the Chauncey Webb site and the ones found in the bottle books.



a

b

Figure 14. Beverage Bottles

Table 6
Bottle Distribution

LEVEL	Bottle Types	Household Type	Food Type	Cosmetic Type	B. Type Standard Variety	B. Type Whisky Variety	B. Type Beer Variety	B. Type Wine Variety	B. Type Soda Pop Variety	Acid Bottle	TOTAL BOTTLES
Surface		1					2	1			4
Level #1		22	1089	36	3		145		37	12	1344
Level #2		13	441	3			80	2	40		549
Basement Original Floor			10	1							11
Inside Structure #2		2	3	1			3	1			10
Trench #2, Outhouse #1		1	6	2			5				14
Trench #3, Inside Outhouse #2		1	19	1					1		22
Trench #3, Inside Outhouses #2 and #3			9				1				10
Trench #3, Inside Outhouse #3			4				1				5
Trench #4, A, Inside Outhouse #4			8			1					8
Trench #4, A, Outside Outhouse #4		6	51				1	1	1		60
Trench #4, B, Inside Outhouse #4		2	10	1		2		4			19
Trench #5, Inside Outhouse #5			8	2							10
Trench #9, A, Inside Bulkhead							1				1
Trench #9, B, Inside Bulkhead							1	2			3
TOTAL		48	1628	47	3	3	240	11	79	12	2071

*Each * represents one (1) complete bottle

TOTAL SHERD COUNT OF ALL BOTTLES 2,628

Total: 7 (?) complete bottles

TOTAL: fifteen (15) complete bottles

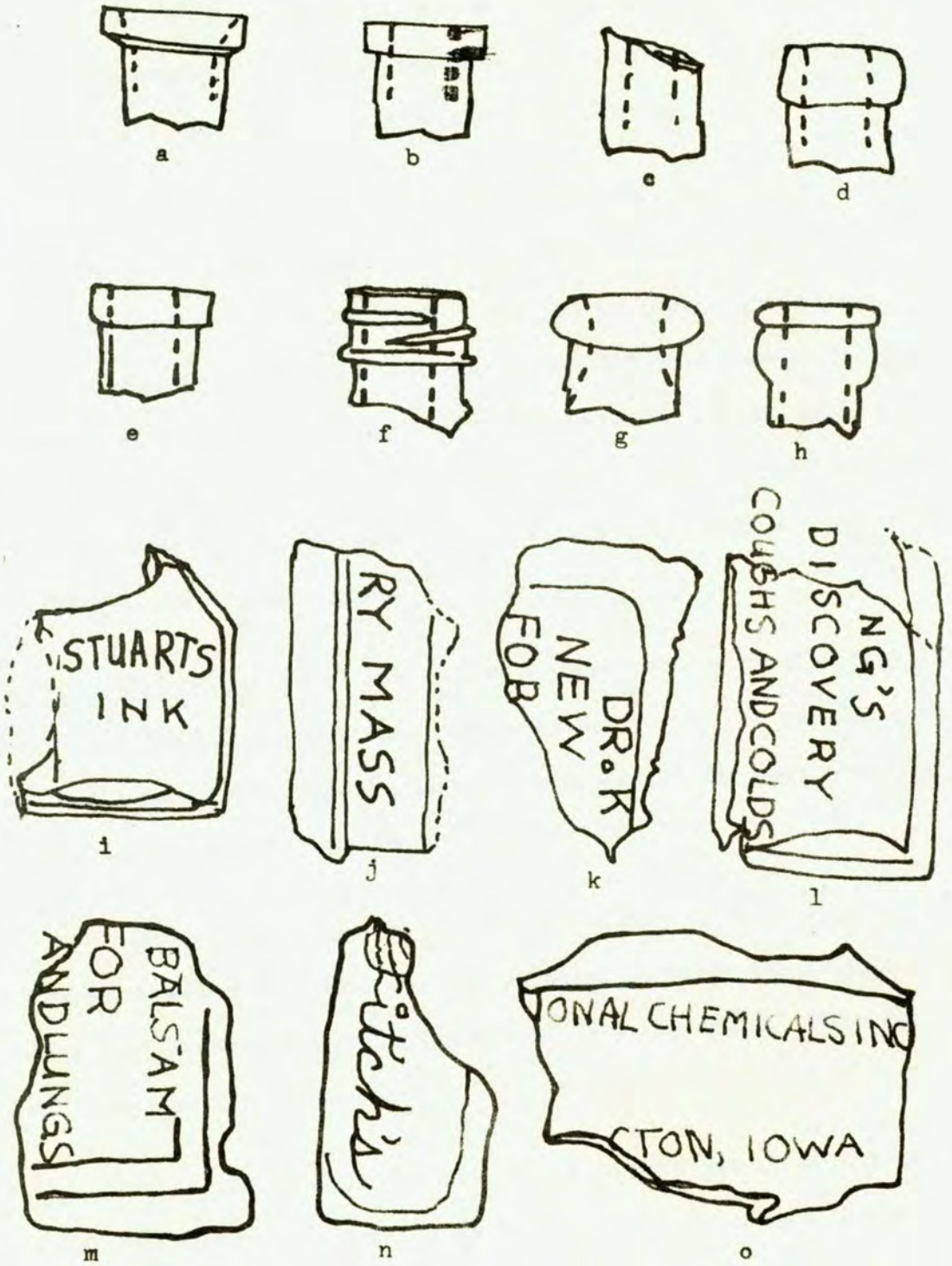


Figure 16. Bottle Finishes and Body Trade-marks

The finish can be divided into several parts: (1) The "bore" is the diameter of the aperture opening. (2) The "sealing surface" is the upper part of the finish to which a cap seals itself. (3) The "collar" is the basal portion of the finish and is a ring of glass which is placed around the neck at the base of the finish to fasten the closure. It usually occurs on a threaded closure.

Prescription (Fig. 16a). These finishes were used on medicine bottles, as the name indicates. They were usually graduated for the dispensing of prescription drugs. "On all prescription finishes the sealing surface is tapered into the bore. The bore itself is slightly tapered at times for sealing with a tapered cork" (Berge 1968:301). The bottles were purchased by druggists who filled the bottles themselves. Pouring exact quantities of medicine was made easier by the flaring mouth of the finish.

Patent lip (Fig. 16b). The sealing surface on this type is flat and the narrow edge runs perpendicular to it. It was the most common type in the late nineteenth century as it was most commonly found on the patent type (Mansey 1970:65).

Blow-over. The only finish to the neck in this type is the ground smooth neck. This finish is common on early historical flasks (Fig. 17f), small ink bottles and some types of vials. For example of this type see Figure 16c.

Oil (Fig. 16d). The oil finish is very common on castor oil, beer, and liquor bottles. It is also found on some soda pop bottles and olive oils. It is distinguished by the glass ring at the top of

the finish which becomes part of the sealing surface.

Vial (Fig. 16e). This finish is common only to a type of vial bottle. It looks like a miniature patent finish.

Continuous thread (Fig. 16f). This type of finish requires a screw cap. This type is extremely important because after 1924, when it became popular, it replaced practically all the previously-existing types of finishes (Ferraro 1966:15).

Soda (Figs. 16g-h). "The blob-looking soda pop finish is usually found in association with Hutchinson's Spring Stoppers or similar ones. This type is distinctive in the large blob of glass on top stands out" (Ferraro 1966:51).

Bottle Closures

The closure's purpose is to keep the bottle contents from spilling out and to prevent contaminating substances from entering (Glass Manufacturers' Federation nd:25).

The three basic closure types are: (1) caps, (2) stoppers, and (3) seals. All three types are represented at the Chauncey Webb site (also see the section on metal analysis).

Cap types (Fig. 16f). The cap closure is distinguished by its ability to secure itself by overlapping of the outside of the finish. The exterior of the bottle finish is modified for this specific purpose.

The external screw. External glass threads on the finish allow the lid to screw down tight on a gasket inside the cap made of cork or rubber and helps keep the seal tight. The caps are made of metal or tin

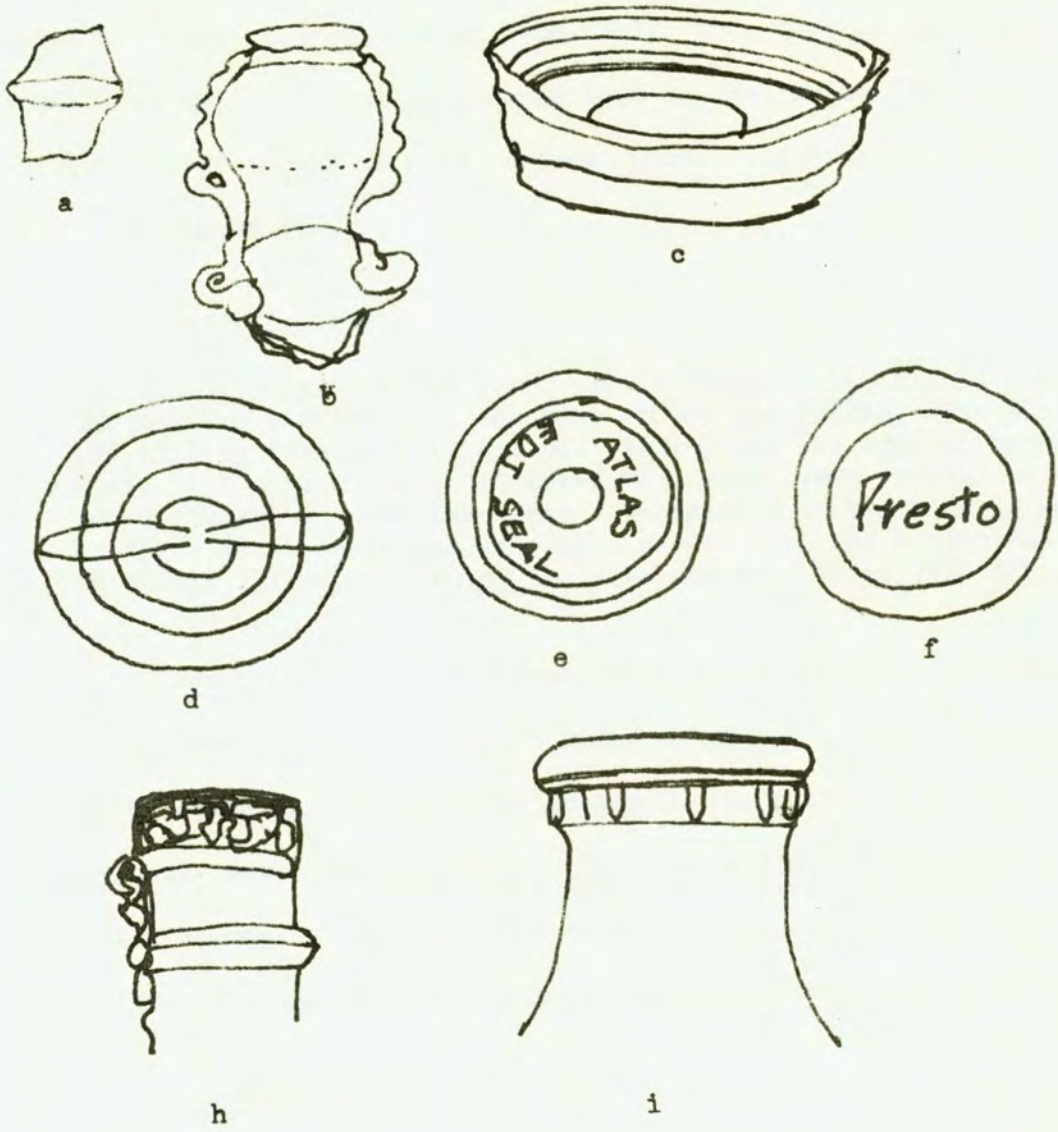


Figure 15. Seal types

tin plate (Glass Manufacturers' Federation nd;25). This kind is used on preserve jars for home canning. Another closely related type is the "external screw thread" (Berge 1968;284). This type is tall and continuous while the external screw type is shallow continuous. The external screw thread is used on Mason jars. For a basic idea of these types see Figure 25f.

Lever (Fig. 15g).

The principle of the lever cap is simple. The cap is placed on the sealing surface with the edge of the cap fitting over the finish and sliding into a small groove. Around the lid edge in turned-out slots is a wire which is attached to a wire lever twisted to give added strength. When the lever is pressed down the wire is pulled up tight which seals the cap tightly. To open the bottle the lever is simply lifted, loosening the wire and cap (Berge 1968;285).

Crown (Fig. 16f). The crown type is one of the most commonly used types today. In this type a plain metal cap secured over the finish by crimping it around the groove in the finish closes the bottle. This process seals the container. This cap did not become popular until after the depression of 1893 even though it was patented in 1892. The reason for this was lack of money for new machinery (Lief 1965;19).

Continuous thread (Fig. 16f).

Screw caps began to grow in popularity after World War I, especially those of the "quick thread" types. This led to the development of a single continuous thread in a shallow metal cap which required only a couple of quick turns to open. This cap was standardized in the industry in 1919 while the C. T. bottle finish was standardized in 1924 (Lief 1965;29).

Center pressure cap (Figs. 15h and 25i). The seal is achieved in this type of cap by a pressure on the perimeter of the device. This pressure is created because the cap is reduced in diameter. A prepared indentation in the finish is then gripped by a series of lugs

on the cap.

Stopper types. Stopper types are secured by some means to the interior of the finish. The pressure against the sides of the bore created by forcing some object into it creates a seal.

Cork (Figs. 28 and 16a). This type of stopper was the most common type of closure of historic times. It became little used after the coming of the crown cap in the 1920's (Lief 1965:4-6). Cork shapes were straight-sided or tapered. During the nineteenth century the part that protrudes over the finish was expanded so that designs or tin plates and brand names could be attached. Tradition will probably always require certain bottles to have the cork stopper such as champagne.

Glass stoppers (Figs. 15a and 15b). The variety of types of glass stoppers is great. The glass stopper as we know it began in about 1725 (Holscher 1965:31). This glass stopper has a wide stem which has its surface roughened by sand-blasting or grinding. The seal between the inside of the finish and the roughened stopper is accomplished when the stopper is placed inside the finish bore which is also roughened. Friction seals the two rough surfaces.

Seal types. In seal closures a vacuum creates an airtight seal by contraction and cooling done within the bottle. These types of closures are comparatively recent. Vacuum sealing only accounted for 40 percent of packaged food stuffs in 1925 (Lief 1965:31).

Spring seal (Figs. 15d and 25h). The seal was accomplished by a can being held tight against the sealing surface by a spring

holding pressure on the lid.

Disc seal (Figs. 15e-f and 25f). The loose disc incorporated in a screw-ring is the most popular type of home bottling seal closure today. The disc seal began with the sealed cooking process of Nicolas Appert (1810) and John L. Mason's fruit jar (1858). For a further discussion of Mason see the section on body types.

The first discs used fitted into a zinc seal. They were made opal glass (also called porcelain) and were invented by Lewis R. Boyd. The glass disc prevented metal from touching the contents, but removing the seal closure was a problem. The early Boyd seals had a small handle attached to aid the housewife in removing the lid (Berge 1968:297).

For a possible example of the Boyd seal see Figure 15c.

Other types found at the Chauncey Webb site which fit in the disc seal category are the ones using glass discs and metal discs (Figs. 15e-f and 25f). The glass discs made of clear quartz glass, had two different embossed trade-marks. One, of the word "PRESTO"; Munsey (1970:480) has a photograph of a trade-mark embossed with the words "PRESTO WIDE MOUTH GLASS TOP" on the side of a bottle of clear quartz glass. This bottle had a glass lid with a metal screw band and dated between c.1925-1946. The other trade-mark on the glass discs was composed of the embossed letters "EDJ SEAL ATCLASS". This could be the Hazel Atlas Company identified in Jones (1965:Vol.5). For further discussion of dating of this trade-mark see the section on base types.

The metal disc type seems to be the most modern since one can buy these for home canning readily in stores today.

Dating the Bottles from Trade-marks

Bottles seem to have two main areas on which trade-marks were written. The first area is the body and the second is the bottle base.

The trade-marks will be discussed in two parts: Those found on the body and those found on the base. Since it is likely that the same company may have made trade-marks on both the body and the base of the bottles there may be some overlap in the discussions.

Body trade-marks. Because of the limited collection of bottles at the Chauncey Webb site, bottle bodies will be classified according to general shape with the exception of the paneled body type. Trade-marks found on a cylindrical shaped bottle body were as follows:

Figure 17b is a body fragment of a food jar upon which a trade-mark is embossed in the clear glass. The trade-mark has embossed "Kerr, SELF SEALING", "TRADEMARK REG" (inside of a ribbon), then the word "MASON" below. Berge (1968:299) writes about the history of the word "Mason".

Shortly after 1873 Mason became associated with the Consolidated Fruit Jar Company which produced Mason jars, but by 1888 many other companies were making the jar (Glass Containers Manufacturers Institute nd:7-8). Some are; Whitall Tatum Company (marked WHITALL'S PATENT, JUNE 18TH, 1861); Clyde Works (1864-1915); A. G. Smalley & Co. (Patented September 23, 1884, but marked MASON'S PATENT NOV. 30TH 1858 or MASON'S IMPROVED); Ball Brothers (first fruit jars in 1885); C. J. Root (1901-1908); Latchford Glass Company (1925-1938, green glass prior to 1930); Hero Fruit Jar Company (marked with a Maltese cross and HERO); Consolidated Fruit Jar Company (monogram CFJC, made by the Clyde Factory); and, Kerr (also made an indigo blue jar between 1910-1930, besides modern type). Some of the trade names used on Ball Brothers are Standard (discontinued 1912), Eclipse, Special Sure Seal (1908-1922), Ideal (World War I to 1962), Perfect (from 1915), Quick Seal, Safe Seal, Banner and Climax (Ellsberg nd:3).

Using the above quoted information for dating, this first trade-mark dates after 1910.

Figure 12c and 18t show the body trade-mark and base trade-mark of a food jar. The trade-mark on the body has embossed a Maltese crown and the words "MASON'S PATENT NOV. 30TH 1858". The base trade-mark has



Figure 17. Body Trade-marks

embossed around the edge "PAT NOV 26 G7" and in the middle the number 86. The bottle is aqua in color. Munsey (1970:149) has a photograph of this exact variety of food bottle and dates it to c.1870-1890. Munsey also attributes this trade-mark to the Hero Fruit Jar Company. mentioned in the last quotation.

Soda pop bottles were found at the Chauncey Webb site. They also have a cylindrical body. The history of soda water in America is outlined by Munsey (1970:105):

The history of specific soda water firms and their bottles is in itself, worth several volumes. Most of the early bottlers produced their own syrups, manufactured limited quantities of soda water, and sold their product within a limited area--usually their own city. After the turn of the century, however, a few of these small firms began to expand and develop into large corporations. Notable among them were such familiar brands as Hires Root Beer, Moxie, Coca-Cola, Pepsi-Cola, and a little later (in the 1930s) 7-Up.

Figure 17e is a fragment of a Pepsi-Cola trade-mark painted on the body of a bottle. The letters "Pep" are painted in red on a white background shaped like an oval with a little blue paint visible outside the oval. From the information in the above statement this would date to after the turn of the twentieth century.

Figure 17a shows a soda pop trade-mark on the body of a bottle. The trade-mark is a negative-painted design with the background in black paint and the lettering represented in the clear glass body. The words on the trade-mark read: "Nesbitts OF CALIFORNIA 1938". On the other side of the bottle body the words "NESBITT BOTTLES; QUINCY, ILLINOIS" are written in black paint. Judging from the date on the bottle, the bottle must date after 1938.

Trade-marks found on a paneled body. A panel is a flat indentation formed in the body during molding. This form of body

molding was used extensively for patent and/or proprietary medicine bottles. Munsey (1970:65) recounts the history of patent and/or proprietary medicines in the following way.

Not all medicines were patented in fact very few were. Medicines made in America were hardly ever patented by the King (of England) or, after the Revolution, by the United States Government. The U. S. Patent Office opened in 1790 and the first patent for medicine was not issued until 1796, to Samuel Lee, Jr. of Windham, Connecticut, on a product he called "Bilious Pills." Because the maker would have to disclose the ingredients, a good portion of which was usually alcohol, registering the brand name was a better protection than patenting. Thus in the strict use of the word, all ready made medicines cannot be called patent medicines; those whose brand names were registered are more properly called proprietary medicines. The term patent medicine has, however, become the generic one for all medicines sold without prescriptions.

Munsey explains that the Pure Food and Drug Act was signed in 1907. As a result, many medicines were taken off the market. Those which stayed in business needed to change their advertising and product content in most cases. This caused the public to lose faith in these types of non-prescription medicines. The above information broadly dates most of the panel type of bottles at the Chauncey Webb site to between 1790 and 1910. The bottles included in the patent or proprietary medicine category along with their trade-marks would include the following Figures: 16j-a, 16o and 17c-d. Figure 17c is on a round body, however, it is included in the proprietary medicine bottle category (Munsey 1970:69).

In the middle 1800's the American Indian was promoted as being a "natural" physician, who perfected botanical medicine through the years. One of the medicines claiming Indian origin was Seminole Cough Balsam (Munsey 1970:67).

The bottle in Figure 16m has the words "BALSAM . . . FOR . . . AND LUNGS." The lettering is in a rectangular panel and the glass

color is aqua. The lettering is embossed.

Another trade-mark using the word "BALSAM" was used in the mid-nineteenth century was embossed on aqua-colored glass. It was "MRS. N. M. GARDNER'S INDIAN BALSAM OF LIVERWORT". Consequently, the bottle with the embossed word "BALSAM" on it in Figure 16m probably dates to the mid-nineteenth century.

The name "Fitches" appears on the panel of the bottle in Figure 16n. This is a brand name which appears on hair tonic and shampoo today in the local drug store. At present it is a trade-mark used by Procter & Gamble Company. Their principle office is located at 301 East 6th Street, Cincinnati, Ohio 45202. They were incorporated May 5, 1905 in Ohio (McDonald 1971:753). The probable date of the bottle in Figure 16n and 18g is after May 5, 1905.

Trade-marks found on square bodies. Square ink bottles have been used over the years; however, prior to 1860 they were not in demand. Well into the 1900's the "school house" ink bottles were used by a majority of ink makers. Many fine examples of embossed bottles are to be found in this group. The colors range from aqua to dark amethyst in the "bimal" bottle group.

The solitary ink bottle found at the Chauncey Webb site, shown in Figure 16i had embossed on the body, "STUARTS INK". Covill (1971:104) says that the bottle was made only by Stuart and Harrison, Council Bluffs, Iowa. Coville, however, gives no date of manufacture.

Trade-marks found on oval bodies. In this thesis the oval bottles are represented by the flask in Figure 17f. To collectors, historical flasks are considered to be the most attractive and sought

after. These flasks commemorate events of great importance ranging from the discovery of Pike's Peak to the building of railroads. Historical flasks were made between the years 1825 and 1852. "Eagle" flasks are sometimes considered to be historical; however, most collectors categorize them alone to avoid confusion (Van Rensselaer 1969:30).

A partial example of an "Eagle" flask was found at the Chauncey Webb site (Fig. 17f). It fits many varied descriptions of those manufactured either by Steddard, Dyott or Eagle Glass Works. This flask is pocket size and aqua, bearing an embossed "EAGLE" on the body. The Eagle's head is reversed and over the head is a ribbon. From what can be seen, the Eagle bears a shield and holds arrows in its left talon. The Eagle's head also faces the left. Nothing else is preserved for any further identification.

Bottle Bases

Since the collection is so limited at the Chauncey Webb site no attempt is made to classify the bottle bases into a typology. The bases which still have not been dated are discussed.

Hazel-Atlas (Jones 1965;Vol. 5) manufactured three bottle brands from the Webb site. Their mark is the letter "H" with a small "A" underneath the lower part of the "H" (Figs. 18f, i, l). The first mark is inside a circle with the numbers "5340" and number "\$14" below that. An unusual hexagonal shape contains the "H" with the "A" under it in Figure 18i. The outer edge has scalloping around it in this trade-mark. The third example is a "JERGENS" bottle which has the "H" and "A" above it and at the top appears the number thirteen. In "Moody's Handbook of Common Stocks" (McDonald 1971:93) there is an

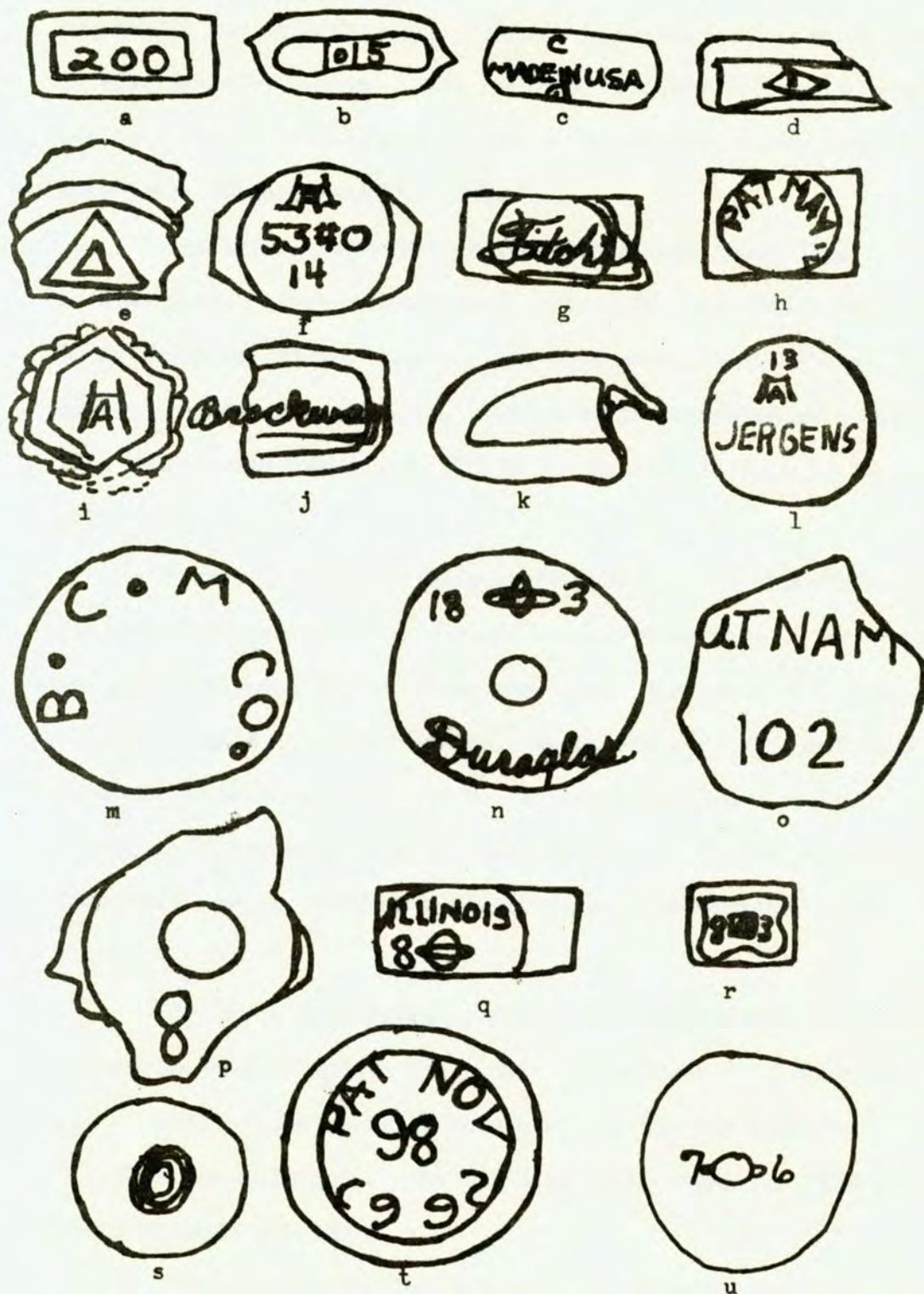


Figure 18. Bottle Bases and Trade-marks

Atlas Chemical Industries, Inc. They manufacture, among other things, cleaning preparations, detergents, cosmetics, etc. A subsidiary named Stuart Company manufactures drugs including dietary products, vitamins, analgesics and tranquilizers. It was incorporated on October 18, 1912 in Wilmington, Delaware. This would be one possibility in identifying the Hazel-Atlas trade-mark. Based on these trade-marks mentioned above, this glass would date after 1912.

The Vicks trade-mark is found in Figure 18e. This is embossed on blue glass. Richardson-Merrel, Inc., 122 East 42nd Street, New York, N. Y. 10017 use Vicks, VapoRub, and Va-tro-nol as their trade names for making proprietary medicines. They were incorporated on August 12, 1933 in Delaware (McDonald 1971:785). This would date the trade-mark after 1933.

Munsey (1970:151) sheds some light onto the identification of two base trade-marks found at the Chauncey Webb site in some photographs and descriptions. Munsey shows some fruit jars with the trade-mark "BROCKWAY CLEAR-VU MASON" on the body of clear colored bottles. He dates these bottles c.1925-1936. Although this was inscribed on a fruit jar it may help date the base marking on figure 18j which says "BROCKWAY" and is found on a prescription type medicine bottle (Fig. 10a).

The above information provided by Munsey could also help date the bottle base in Figure 18m. This is the base of a standard liquor bottle. The embossed base mark has the initials "B. C. M. CO." The glass color is aqua. The initials could stand for "BROCKWAY CLEAR-VU MASON COMPANY."

The Owens Bottle Company is still in existence at Toledo, Ohio

(Van Renssellaer 1969;82). In 1866 a Mr. Libbey became a sole owner of the Libbey Glass Company. Later he organized the business into the Toledo Glass Company. He helped finance the experimental and final development of the Owens Bottle Machine invented by Michael J. Owens of Toledo. This brought many new changes in the glass industry. The Owens Bottle Company absorbed other small companies after this invention (Van Renssellaer 1969;229).

In 1904 Owens completed the Mechanical Bottle Machine and the Illinois Company was one of the first to merge as Owens-Illinois Glass Company (Jones 1965;Vol. 15). Three of their trade-marks were located at the Webb site. One (Fig. 18n) is circular with the numbers "18" and "3" on either side of a globe that has a ring around it. At the bottom of this trade-mark is the word "Duraglass" and in the middle of the trade-mark is a circle. According to May Jones (1965;Vol. 5) Duraglass was produced by the Owens-Illinois Bottle Company. The second trade-mark (Fig. 18q) is a partial circle or a rectangular bottle base. Inside the circle is the word "ILLINOIS" and the number "8" beside the globe with a circle around it. This bottle trade-mark was very possibly manufactured by the same company. A third trade-mark was on a rectangular base (Fig. 18d). It has the Owens-Illinois trade-mark so it dates after another merger which took place in 1930. This trade-mark is identified by a diamond with the letter "I" in the middle.

To further date Figures 18n and 15h which show the base trade-mark and neck finish of a milk bottle we can refer to Munsey (1970;191). Cecil Munsey said concerning painting labels on milk bottles: "In the mid-1930s applied color labeling became financially practical and it

began to replace embossed lettering." On the partial piece of body which is attached to the base in Figure 18n is painted the words "THE PUREST" in blue paint. The bottle glass is clear in color. Using the above quoted information this milk bottle probably dates after the 1930's.

The Putnam Flint Glass Works was established by John Carter and shortly afterwards operated by Carter & Woodruff, then sold to Kearns & Company. Carter's first name appears also as Jehu in some of the early records and the date of establishment as 1845 (McKearin 1966).

The company produced flint glass, hollow ware and bottle glass. McKearin locates the company "across the Muskingum River from Zanesville" in 1842. Figure 18o shows a partial trade-mark on a portion of circular base. The embossed trade-mark has ".UTNAM 102". This probably stands for PUTNAM and would then date after 1845.

Figure 18s shows an aqua colored vial base with a scar from a blowpipe pontil. This method was being used before 1845, and is described by Munsey (1970:47):

Before the advent of the automatic glass blowing machine free-blown and mold-blown bottles had to be held by some method so that the neck could be detached from the blowpipe and finished.

Blowpipe Pontil. A blowpipe could be used in the same way as a solid iron bar. The one possible difference is that the use of a blowpipe as a pontil can be accomplished by one person if necessary. The use of the iron bar requires that a second person bring the glass-tipped rod to the master blower, while the blowpipe pontil could be the same pipe used to blow the bottle. If such were the case the master blower would, while the bottle was pressing in an angled depression in the floor, have to sever the blowpipe from the neck of the bottle before it cooled.

For the collector, the important difference in the two devices used in this type of empontilling is the resulting scar. The scar left by the blowpipe pontil is not solid but ring-shaped.

MISCELLANEOUS GLASS

Pressed Glass

Pressed glass came about as a result of Yankee ingenuity, and

the help of a better developed pressing machine, in the late 1820s. The designs of pressed glass were inspired mostly by the fine expensive cut glass. Pressed glass retained the characteristics of cut glass in its intricacy and delicacy of most patterns, some of which could not possibly have been achieved on a cutting wheel (McKearin 1966: 394). All these attributes added to the economy of pressed glass.

Many of the early patterns continued to be in vogue well into 1860 and 1870 and were rather elaborate. One of these patterns, New England Pineapple seemed to be of some help in identifying a sherd found at the Chauncey Webb site (Fig. 19d). Around this same time-period colored Hobnail glass was not uncommon (McKearin 1966:396). In Figure 19g an example of pink Hobnail is shown. The Hobnail sherd is covered with round raised bumps. The other piece of pressed glass shows a diamond pattern which is further elaborated upon by crosses inside each diamond and possible stylized leaves shoot from between a pair of diamonds. The appearance suggests a pineapple.

Bar Tumbler

The one-half pint bar tumbler found at the site (Fig. 20b) can be described by its some twenty thin flutes which cover three-fourths of the glass. Very fine smooth ribbing decorates the lip edge of the tumbler. It could be one of the myriads of glass designs which came into production in the highly commercialized era from 1840 to 1870 (Lee 1946:4). This tumbler was found in the oldest outhouse at the site, as evidenced by the pottery ceramic distribution. This was found in Outhouse #1. All of this information dates this tumbler around the Mormon period.

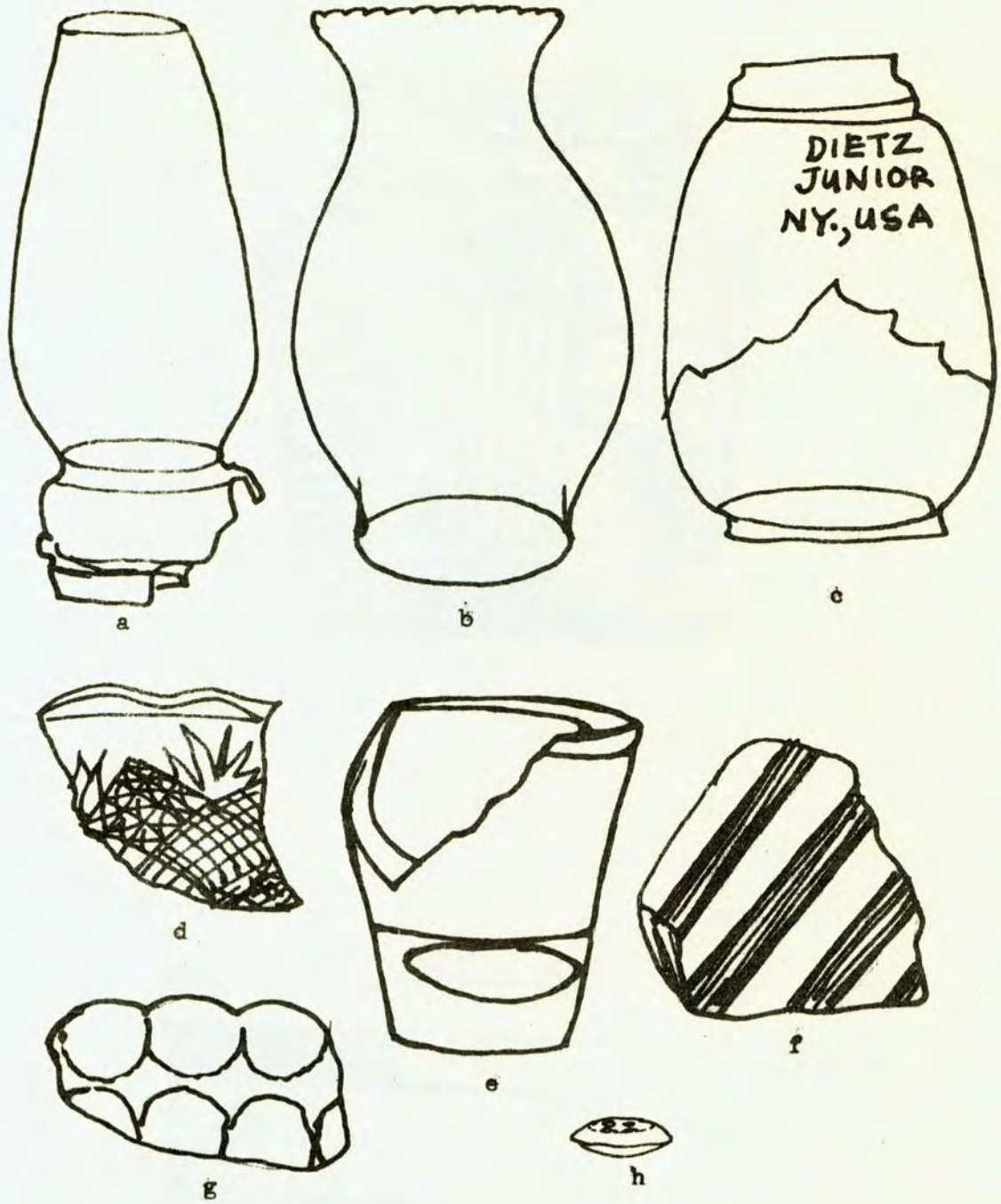
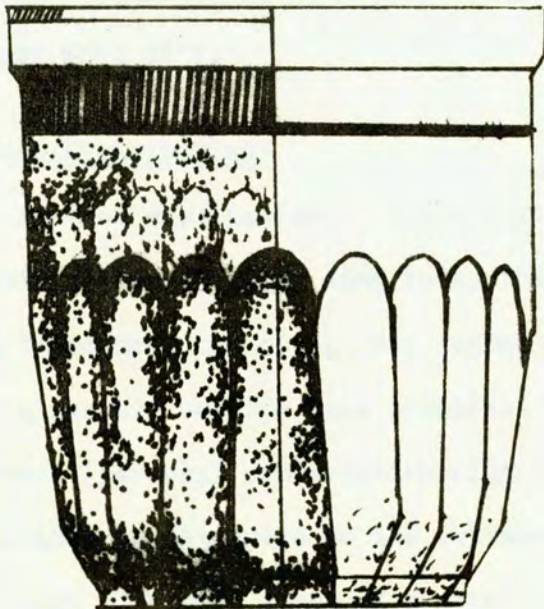


Figure 19. Miscellaneous Glass



a



b

Figure 20. Miscellaneous Glass

Buttons

The twenty-eight white porcelain buttons fall into the 1800's, especially around 1830 (Hume 1960:90). This type is described as having a convex front and back with four small holes and is one-half inch in diameter (Fig. 19h).

Glass Distribution

A sherd count was taken of all the glass found at the Chauncey Webb site. This sherd count was done by level and glass type (Table 7). The window glass was counted by level and thickness in ten-thousandths of an inch. The glass distribution of bottle types seems to indicate that most of the bottle types were used in fairly recent times as evidenced by the fact that most of the sherds were found in the upper two levels or upper foot of soil. The exception to this is the patent medicine type which was found in all levels. The window glass is for the most part found in the upper foot of soil (Table 8). Glass in general seems to have been used more extensively in recent times at the Chauncey Webb site.

Window Glass Distribution

A further examination of Table 8 indicates that the intermediate thicknesses of glass seem to be the most abundant and widely dispersed throughout the site. One reason for this is that all panes of window glass are not the same thickness throughout especially in earlier times (personal conversation with J. C. Harrington), therefore, some variations in thickness to the extremes do not especially mean a different type of window glass is present.

Table 7

Miscellaneous Glass Distribution

LEVEL	Lamp	Chimney	Refrigerator Tray	Medicine Dropper	Porcelain Lid	Red Caster	Tumbler	Beer Mug	Glass Marble	Bead	Mosaic Window Glass	Milk Glass	Pressed Glass	Glass Buttons	Liquor Jigger	Frosted Glass	TOTAL
Surface	2											2	1				5
Level #1	81	20		4		23	1	1	2	9	77	35	5		1		256
Level #2	26	6		1		10					25	11			1		79
Level #3	7						1										8
Basement Original Floor				1					2								3
Inside Structure #2											2	1					3
Trench #2, Outhouse #1	18					2								1			21
Trench #3, Inside Outhouse #3	2													1			3
Trench #3, Inside Outhouse #2	72	1		1		3					2		2				81
Trench #3, Inside Outhouses #2 and #3	45	1		2				1				1					49
Trench #4, A, Outside Outhouse #4						1	14			13	1						29
Trench #4, A, Inside Outhouse #4	94														1		95
Trench #4, B, Inside Outhouse #4	125																127
Trench #6, Inside Outhouse #5				1		2		1		6		1					11
Trench #9, B, Inside Bulkhead	1																1
TOTAL	473	28	1	9	1	55	1	3	4	28	107	51	10	3	2		780

*Each * represents 1 complete article

TOTAL GLASS SHERD COUNT, 3,403

Total Whole Objects: 19

Table 8

Window Glass Distribution

LEVEL	Thickness in ten-thousandths of an inch.													TOTAL	
	.0320	.0403	.0453	.0508	.0571	.0641	.0720	.0808	.0907	.1019	.1144	.1285	.2043		.2576
Surface					1				1	1	3	3			9
Level #1	2	1	1	1	2	11	3	17	34	30	16	9			130
Level #2		1	1	3	4	2	2	3	7	4	1	2	1		31
Level #3					1			2	1	2		1			7
Level #4				1				1		2					4
Level #5									1						1
Level #6						1		1	1						3
Inside Structure #2						2		1		1					4
Trench #2, Inside Outhouse #1			1	6	9	5		9	2						32
Trench #3, Inside Outhouses #2 and #3			1	1	2	3	1	3	5	1	1				18
Trench #3, Inside Outhouse #2			1		1			1	2	4	3				12
Trench #3, Inside Outhouse #3					4	1									5
Trench #4, <u>B</u> , Inside Outhouse #4					1	1			1						3
Trench #7, <u>A</u> , Inside Bulkhead					1			1	1		3				6
Trench #7, <u>B</u> , Inside Bulkhead					1										1
TOTAL	2	2	5	13	26	26	8	40	57	47	21	15	1	3	266

Other Miscellaneous Glass Objects

Among other glass objects listed in Table 7, which were found at the Chauncey Webb site were three oil lamp chimneys and three partial liquor jiggers (Fig. 19a-c and 19e). Twenty-eight pieces of grated, flat glass were found. They appear to be the remains of a refrigerator tray (Fig. 19f and Table 7).

METAL

The metal objects found at the Chauncey Webb site were fairly numerous and diversified as can be seen from the details of Figures 21 through 27. To facilitate description, metal has been classified according to general categories of areas of use with some miscellaneous. This method was used at the Gila Bend Stage Station site in Arizona (Berge 1968b). The main references will Hume (1969; 1970); Berge (1968b), "The Gila Bend Stage Station"; and Fontana and Greenleaf (1962) "Johnny Ward's Ranch: A Study in Historic Archaeology". When classifying the metal found at the site the classifier received much valuable assistance from Charles Snow, who is eighty-seven years of age and who lived most of his life on a farm in Southern Utah; also valuable assistance was rendered by Leslie O. Hansen, who is sixty-one years of age and who, among other things, has been a clock-maker; lastly the classifier is indebted to Roger W. Hansen, who is completing a two-year course in auto mechanics, for his assistance in identifying and dating car parts.

Coins

The two coins found at the Chauncey Webb site are shown in Figures 21a-c. One coin is a Lincoln Head Cent with the date 1950 on

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Coins

The two coins found at the Chauncey Webb site are shown in Figures 21a-c. One coin is a Lincoln Head Cent with the date 1950 on

the front. There is no mint mark, which indicated that it was minted in Philadelphia (Leibers 1965). The other coin appears to be a political medal. It has the words "MY PARTY" inscribed on both sides. One side has an elephant outline on it and the other side shows a donkey. These are symbols of the Republican and Democratic parties of the United States of America.

Cartridges

There were two cartridges found at the site (Figs. 21d-g), and one shotgun shell.

The first cartridge is an old rimfire 52 (as identified by the gun department at Skaggs Drug Center, Provo, Utah. The rimfire cartridge came into general use about 1857 although it was invented in France in 1845. It is still used today on small caliber weapons (Logan 1959:1). Barnes (1965:271) said the following about rimfire cartridges:

The rimfire differs from the centerfire in that the priming compound is contained in the rim and ignition is obtained by pinching or indenting the rim under the firing pin blow Although largely a preliminary design leading to the modern centerfire, the principle was so good that many have survived to the present time.

The second cartridge seems to be an internal centerfire cartridge. It is 60 millimeters long. Logan (1959:7) said: "The early (internal) centerfire cartridges were first made in the late 1850's and ceased to be produced in the early 1890's." He goes on to say that it is distinguished by its inside anvil and perforated disk containing a percussion cap. Practically all of the internal rimfire cartridges have no manufacturer's mark on the base (Berge 1968b:213). This is the case of the cartridge in Figure 21f-g. Berge (1968b:fig. 27k) shows a photograph of a cartridge which could be the same type found at the

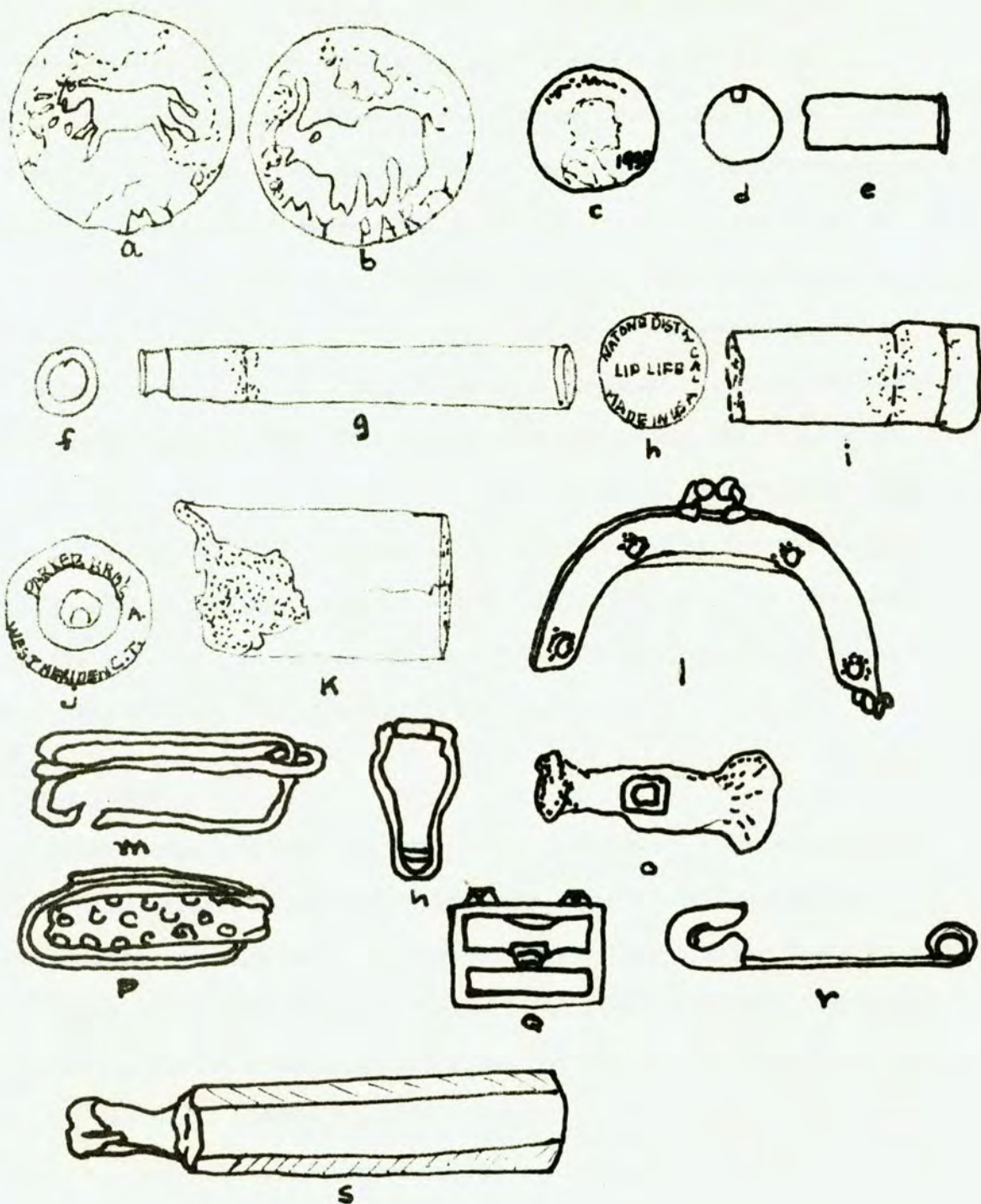


Figure 21. Metal Coins, Cartridges and Clothing Items.

Chauncey Webb site (Figs. 21f-g). He describes it as follows: "The depot .46 caliber shell (Fig. 27k) was 53 millimeters long and had no marks." He classified it as an internal centerfire cartridge and attributed it to the J. M. Marlin Ballard Company and to c.1876.

The shotgun shell found at the Chauncey Webb site (Figs. 21j-k) is a centerfire type, distinguished by the mark left by the firing pin as shown in Figure 21j. Barnes (1965;284-285) dates the beginning of this improved, centerfire type to after 1851 when Charles Lancaster of England came out with it. It was identified by the gun department at Skaggs Drug Center, Provo, Utah, as being a 10-gauge. It has the trademark "PARKER BRO'S A. WEST MERIDEN, CT." on the base. The only Parker Brothers Company the investigator was able to locate is Parker Brothers Games Ltd., Canada. This company is currently owned by General Mills, Inc. (Roskill 1970;316). General Mills, Inc., is located in Minneapolis, Minnesota and was incorporated on June 20, 1928 in Delaware (McDonald 1971). This shotgun shell probably dates after 1928.

Clothing Items

This type includes any article of clothing or other items for the adorning or beautification of the body. The items found at the Chauncey Webb site are shown in Figures 21i-s. For similar items to those which will be mentioned as being found at the Chauncey Webb site which were found at other historic sites see Fontana and Greenleaf (1962; Fig. 16) and Berge (1968b;Fig. 28). The following clothing items found at the Chauncey Webb site were drawn to a scale of 1:1. These items are: purse frame (3) (Fig. 21-l), belt buckle (Fig. 21m), garter strap hook (Fig. 21n), side plate for child's shoe (Fig. 21o), hair curler (Fig. 21p), buckle for chaps (Fig. 21q), safety pin (Fig. 21r), and a shoe

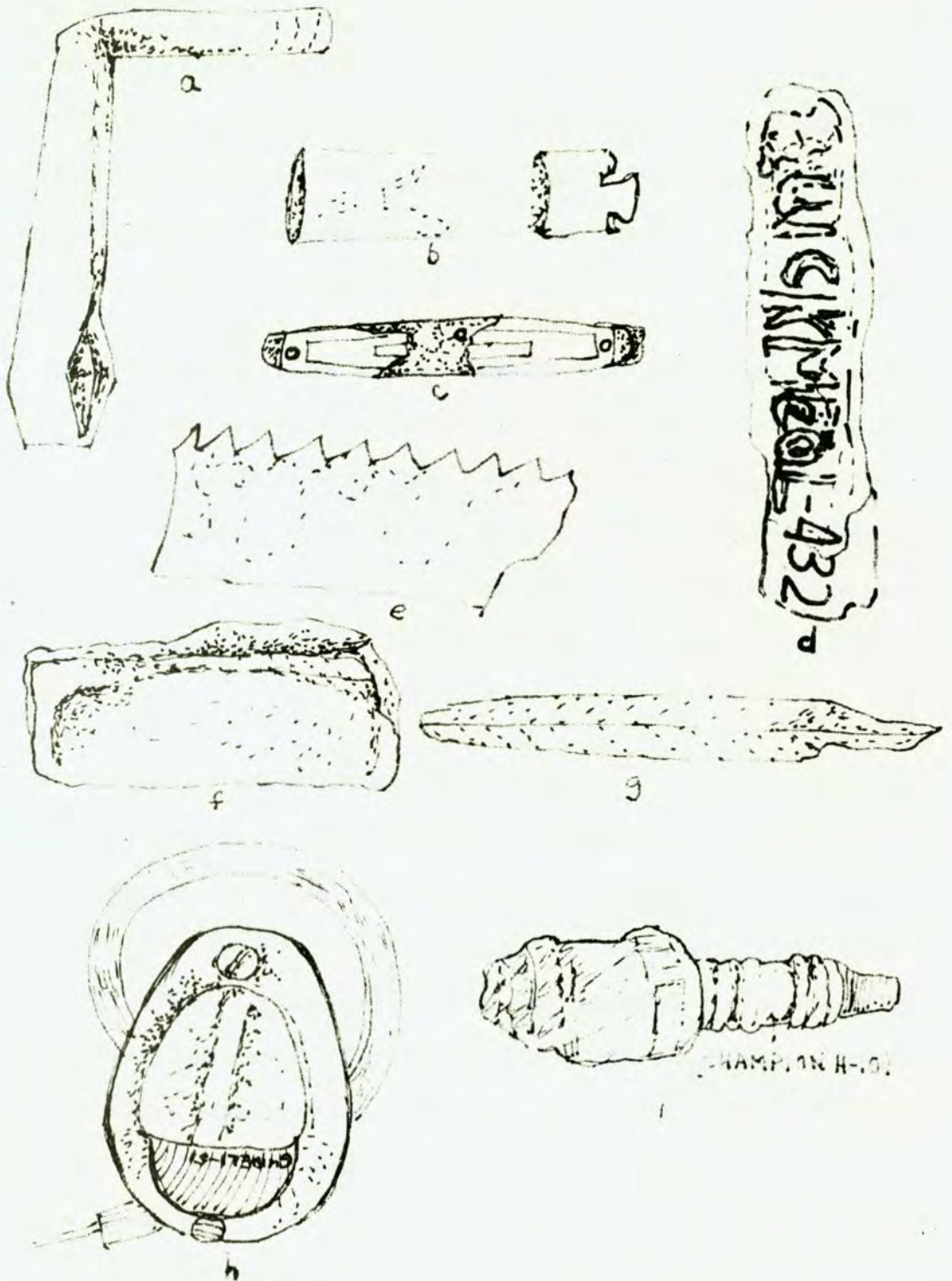


Figure 22. Metal Tools and Car Parts

button hook which Berge (1968b:87) said used to be given away with shoes like shoe horns were given away with a new pair of shoes today. A lipstick tube was found (Figs. 21h-1) which had written on its base "NATONE, DSTR L. A. CAL/LIP LIFE/MADE IN US". The classifier was unable to locate or date this item or find the company.

Tools

Tool remains found at the Chauncey Webb site (Figs. 22a-c, e-g) were for the most part quite rusted due to the damp climate in Nauvoo. The tools are: farm machine crank, size 18" x 7/8" (Fig. 22a), two garden tool sleeves for holding a tool head to a handle, size 18" x 7/8" (Fig. 22b), pocket knife, 3" x 1 1/4", two (2) each, (Fig. 22e), a partial stand for a shoe last, 3 1/2" x 1 1/2" (Fig. 22f) and a corner file, 5 1/2" x 1 1/4" (Fig. 22g).

Nails (Tables 9, 10 and 11, and Figs. 27a-b)

Two general type of nails were recovered at the Chauncey Webb site. They were the machine cut nails and the wire nails. Fontana & Greenleaf (1962:54) identify the machine cut nails similar to those found at the Chauncey Webb site, when they identify the nails cut by water-powered machines. They say that the machines developed the head automatically; however, they are rather thin and lop-sided (Fig. 27b). The nails found at the Chauncey Webb site are badly rusted, in most cases. These nails are dated as beginning between 1825-1830. Later between 1830-1890 machines were produced which cut and headed them more uniformly, some found at the Webb site undoubtedly belong to this category also.

Wire nails were produced by machines in France and exported to

the United States, c.1855 (Fontana & Greenleaf 1962:55). From c.1855 to the present, wire nails have been used in America. This helps to date the second type of nails found at the Webb site. The nails from the Webb site were counted by size and level according to Table 1 found in Fontana & Greenleaf (1962:56). This table is included in a modified version in this work (see Table 9). The nail count of nails found at the Webb site is divided into two categories: cut nails (Table 10) and wire nails (Table 11). Using the above mentioned dates of manufacture for square nails it would be safe to say that the cut nails date to the Mormon period while the wire nails date to the post-Mormon period. With this date in mind when examining Table 11, it is evident that wire nails were found only in the upper two levels of soil, or the top foot of soil. Table 10 indicates that square nails were found practically in all levels and features. This indicates that square nails were used earlier and more extensively. There were 224 wire nails and 454 cut nails counted.

Car Parts

A car light, $3\frac{1}{2}$ " x $2\frac{1}{2}$ ", was found at the site (Fig. 22h).

Research on this item and the spark plug in Figure 22i, in the "Texaco Parts Manual" indicates the following according to Roger Hansen:

The license plate light and the glass lens has the date 1951 embossed on it in small letters. The spark plug was made by Champion Spark Plug Company of Toledo, Ohio. It has the trade-mark "CHAMPION H-10" on its upper portion. This type of spark plug was used on Nash cars (1953-54), Lincoln Continental cars (1953-54), all Mercury cars (1949-54), and Rambler cars (1959).

An extra fog light switch was also discovered (Fig. 26c). It had the word "Fog" written in yellow paint on the item. The trade-name

Table 9
Nail Sizes*

Pennyweight	Length in Inches	Number of Nails per Pound
2	1	1,200
3	1 $\frac{1}{4}$ (common cut)	720
4	1 $\frac{1}{2}$	432
6	2	252
7	2 $\frac{1}{4}$	186
8	2 $\frac{1}{2}$	132
9	2 $\frac{3}{4}$	105
10	3	87
12	3 $\frac{1}{4}$	66
20	4	35
30	4 $\frac{1}{2}$	27
40	5	21

*Table 1. Weight-length-quantity correspondences among square cut nails expressed in pennyweights, inches, and numbers of nails per pound (Kimbark 1876:95; Blackall 1888:74).

(Fontana and Greenleaf 1962:56)

Table 10
Cut Nail Distribution

LEVEL	Size of Nail	Number of Nails per Pound												TOTAL
		1,200	720	432	252	186	132	105	87	66	35	27	21	
		1	1½	1¾	2	2½	2¾	2 3/4	3	3½	4	4½	5	
Level #1		4		65	23		47	11	24	21	12	2	10	219
Level #2		8	39	29	18		34		4		1			133
Level #3				5	2				3					10
Level #6					3		4				4			11
Outhouse #1				14	8		7		5					34
Trench #2														
Outhouse #1				8	2		2							12
Trench #3, Inside														
Outhouses #2 and #3					1			3						4
Trench #3, Inside														
Outhouse #3				3	4	1			2		4			14
Trench #3, Inside														
Outhouse #2				1			1							2
Trench #4, A, Outside														
Outhouse #4			1			1								2
Trench #4, A, Inside														
Outhouse #4				2										2
Trench #4, E, Inside														
Outhouse #4			1	1			2	1						5
Trench #9, A														
Inside Bulkhead						1	1							2
TOTAL		12	41	128	61	3	98	15	38	21	21	2	10	450

Table 11

Wire Nail Distribution

LEVEL	Pennyweight												TOTAL
	4	6	7	8	9	10	12	20	30	40	50	60	
	1½	2	2¼	2½	2-¾	3	3¼	4	4½	5	5½	6	
Level #1	14	28	4	49	12	10	10	29	5	1	1	6	169
Level #2		16				25	5	4	1				51
Trench #3, Outside Outhouse #3	1		1	1									3
Trench #4, A, Outside Outhouse #4						1							
TOTAL	15	44	5	50	12	36	15	33	6	1	1	6	224

"ARK-LES MADE IN U.S.A." was on the base. The letters "BAT", near an electrical terminal, were embossed on it. The date and name of the manufacturer was not located.

Horse Trappings

One of the most interesting metal objects found at the Webb site was a sleigh bell. This more technically called a rumbler bell by Hume (1970:58). This bell is shown in detail in Figure 23a. Hume has an illustration of this type of bell with a slightly more ornate design (1970:58), which he classified as follows:

An 18th-century brass rumbler bell from the factory of Robert Wells in Wiltshire, England; found in Williamsburg. . . . Bells of uncertain type were made by the gunsmithing and brass founding Geddy family in Williamsburg in the mid-eighteenth century, and it is reasonable to assume that other colonial brassfounders also cast them.

The bell from the Webb site is made of brass and from the above cited information, could date as far back as the 18th century.

Other horse trappings found at the Chauncey Webb site can be compared to those found in other historical sites such as Fontana & Greenleaf (1962:Fig. 15), Berge (1968b:Fig. 32), and Hume (1970:Fig. 75). These horse trappings found at the Webb site are as follows: Strap buckle (Fig. 23b); halter snap, size $4\frac{1}{2}$ " x $1\frac{1}{8}$ " (Fig. 23); harness buckle, $2\frac{3}{4}$ " x $2\frac{1}{4}$ " (Fig. 23d); bow bracket for wagon box, $3\frac{3}{4}$ " x $3\frac{1}{4}$ " (Fig. 23e); wagon bolt, 4 " x $2\frac{3}{4}$ " (Fig. 23f); wagon brake part which appears to be worked by a blacksmith (Snow, personal conversation) found in the basement upper fill. This brake part was $4\frac{5}{8}$ " x $1\frac{5}{8}$ " (Fig. 23g).

Household Items

Door fixtures. The first door fixtures to be discussed are the

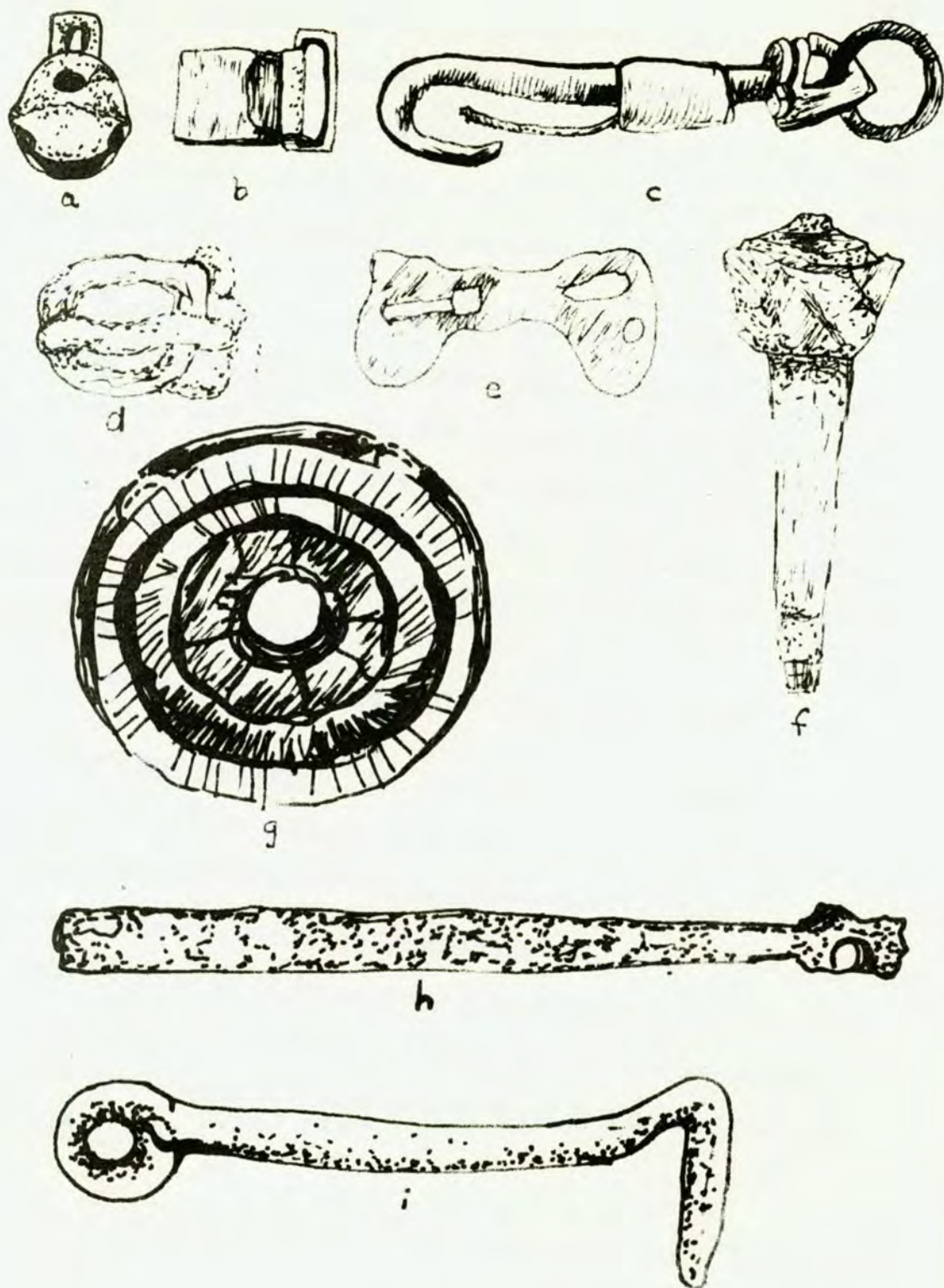


Figure 23. Horse Trappings

door fasteners (Figs. 23h-i, 25q). Figure 23i is a simple door hook and Figure 25q is made of brass and is probably of a more recent period lock. Figure 23h is a door bar which could belong to part of an 18th century type of plate stock lock discussed in Hume (1970:248). Other lock fixtures found were a lock plate size 3" x 3", and a trunk lock which is drawn to a 1:1 scale (usually not mentioned when scale is 1:1).

Hinges (Fig. 24). The hinges found at the Webb site were classified by using the "Webster's New World Dictionary" (1951:688). The hinges are as follows: Two butt hinges Figure 24e, size $1\frac{1}{4}$ " x $1\frac{5}{8}$ " and Figure 24f, size 2" x $\frac{1}{2}$ "; two spring hinges Figure 24a-b, size 3" x $1\frac{3}{8}$ "; and Figure 24g, size 2" x $1\frac{3}{8}$ "; one strap hinge, Figure 24c, size $6\frac{1}{8}$ " x $1\frac{1}{8}$ "; and one pivot for an unknown hinge Figures 24d, size 2" x $1\frac{1}{4}$ ".

A screen door spring $3\frac{1}{2}$ " x $\frac{3}{8}$ " (Fig. 26g) was also found.

Furniture hardware (Figs. 25c, 26d). Four casters (Fig. 25c) were found with rubber rollers, an earlier type is shown with brass rollers in Hume (1970:Fig. 72) which dates between 1750-75. A trunk corner reinforcement, size 4" x 2" was found (Fig. 25k). Two parts from two different kinds of lighting fixtures were identified. Figure 25b shows an oil lamp wick adjuster, of which two (2) were found, size $2\frac{5}{8}$ " x $\frac{9}{16}$ ". Figure 27i shows a lamp stand for an electric lamp, size $2\frac{3}{4}$ " x $2\frac{1}{4}$ ".

Cutler and spoons (Figs. 25p, 25r and 26a). The Chauncey Webb site yielded a dinner fork (Fig. 25p), size $9\frac{1}{4}$ " x $\frac{3}{4}$ ", a dinner knife handle size $4\frac{1}{2}$ " x $\frac{3}{8}$ " (Fig. 25r), and a pewter spoon 6" x $1\frac{1}{4}$ " and also a second fragment $1\frac{1}{2}$ " x $1\frac{1}{4}$ " (Fig. 26a). The pewter spoon has "N E . .

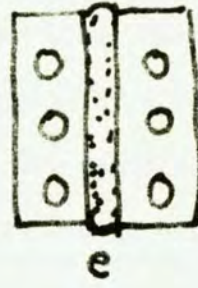
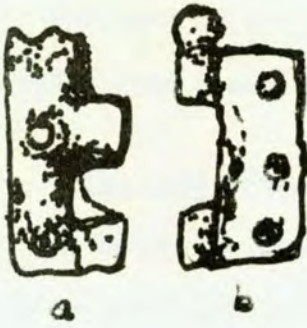


Figure 24. Hinges

A D". embossed on the handle. Hume (1970;Fig. 63) shows some cutlery and dates some pieces of pewter to c.1850-80.

Tin cans (Fig. 25e, g and j). Figure 25g shows a tin can top with a hole in the center which has been filled with solder. Fontana and Greenleaf (1962:68-69) discuss this method of sealing tin cans and date this process from 1811 on through the 1800s.

A fragment of sardine can and a key can opener are shown in Figure 25g and 25j. The can fragment is 4" x 2 $\frac{1}{4}$ ". Fontana and Greenleaf (1962:71-72) have this to say about the subject:

The popularity of canned fish led to experimentation for quick openers. J. Bouvet (1862) of France devised a method of laying wire in a groove, near the edge of the lid, which was soldered in place, the end of the wire carrying out to the center of the top. The scored strip of tin plate grew out of this idea; wherein the lid and body are attached to a third member--the opening strip. In England Widgery (1871) successfully patented such a type as well as a form in which the lid was soldered across a corner over a flap attached to the body, so that a free tongue was left for gripping. A more common variation, seen today, had one corner of the lid extended to enable it to be held by a key.

In 1895, Edwin Norton of Chicago developed a key method of rolling a scored strip.

The sardine can and key opener, with a strip of metal around it, dates after 1895.

Miscellaneous Household Items (Figs. 25 and 26)

For correspondences with these metal artifacts and those found at other historic sites refer to Hume (1970:175-177), Berge (1968b:226-227), and Fontana and Greenleaf (1962). For metal objects used with glass bottles refer to the bottle section of this thesis for further explanation. These artifacts are: Screw-on bottle cap, 5/8" x 3/8" (Fig. 25a), pot handle painted blue, 3 $\frac{1}{2}$ " x 1" (Fig. 25d), fruit jar disc seal (including loose disc and screw ring) 2 5/8" x 11/16" (Fig. 25f), jar

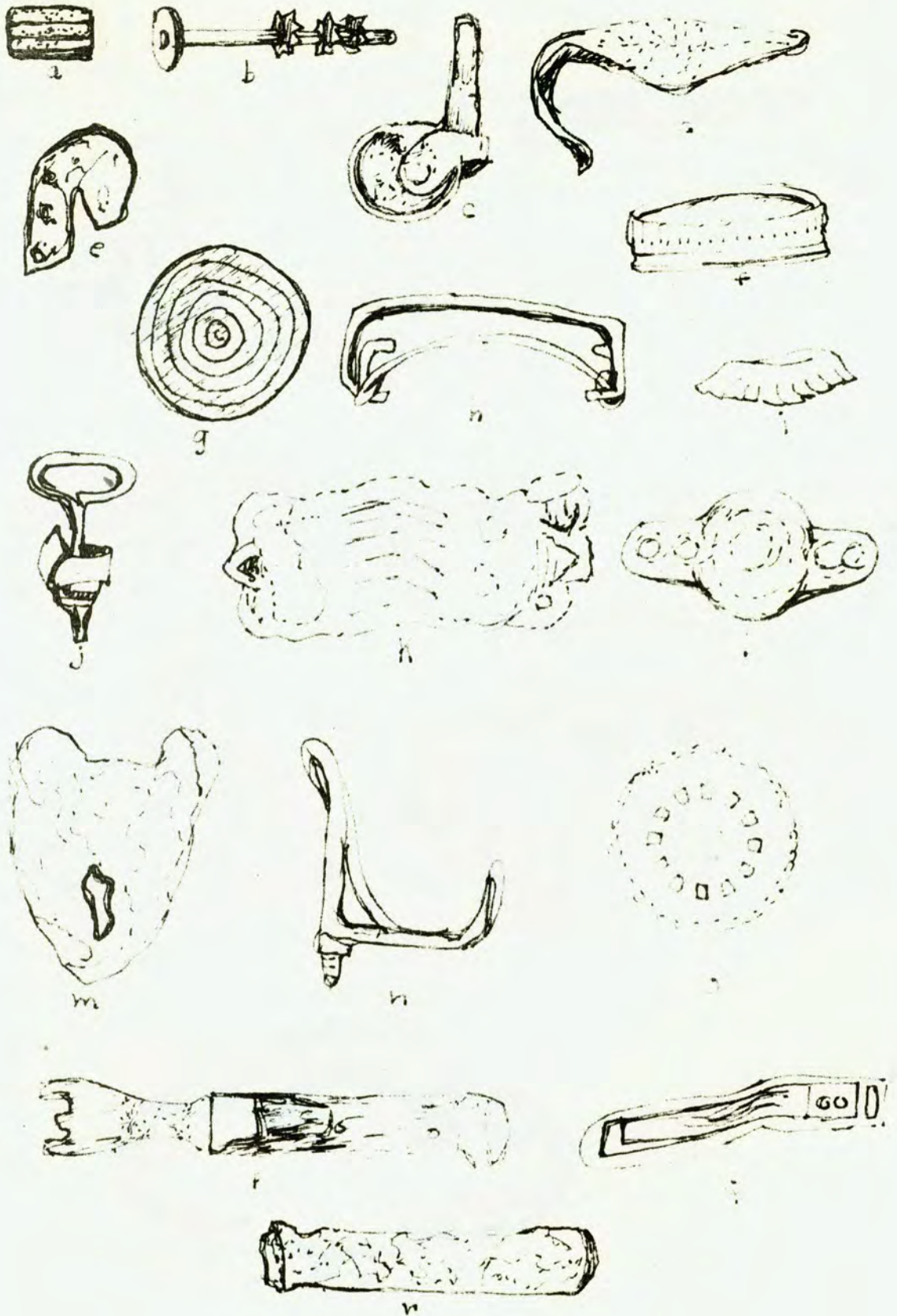


Figure 25. Household Items



Figure 26. Household Items

lid clamp $3\frac{1}{2}$ " x $1\frac{1}{4}$ " (Fig. 25h), soda pop bottle cap, nine each, (Fig. 25i), wall hook for coats 4" x $2\frac{1}{2}$ " (Fig. 25n), clock gear (Leslie O. Hansen conversation) (Fig. 25o), door stop 4" x $\frac{3}{8}$ " (Fig. 26b), wall bracket 3" x 2" (Fig. 26d), toaster heating element, three each, 3" x $\frac{1}{6}$ " (Fig. 26e), finger nail clippers $3\frac{1}{2}$ " x $\frac{7}{16}$ " (Fig. 26f), shaft for a metal ballpoint pen 4" x $\frac{3}{8}$ " (Fig. 26h), flat iron $3\frac{1}{2}$ " x 4" (Fig. 26j), and a brass pan lid $6\frac{1}{2}$ " x 2".

Miscellaneous Metal Artifacts

Among the miscellaneous metal fragments found at the Chauncey Webb site was a harmonica fragment (Fig. 27i). Fontana and Greenleaf (1962; Fig. 17d) also reported a harmonica fragment as being found at the Johnry Ward ranch. Figure 22d shows a stove part with the embossed trade-mark "Quick Meal 432". The classifier was unable to identify the manufacturer; however, note the correspondences between metal artifacts found in Fontana and Greenleaf (1962; 76), Berge (1968b; 228) and the artifacts found at the Chauncey Webb site. These artifacts at the Webb site are: a garter key (Fig. 27c), a piece of sewer pipe, 3 $\frac{3}{4}$ " x $3\frac{1}{2}$ " (Fig. 27f), a piece of bailing wire (Fig. 27d), a railroad spike (Fig. 27e), electrical insulator (wire and wood/metal core) (Fig. 27g), "U" bracket, 3 each, (Fig. 27h) and a brass pipe fitting (Fig. 27j).

Buttons (Figs. 27k and 27l). Grayish-black was the color of the single tin button found at the Webb site. It appears to be the earliest button found, as Mr. South dates this button in the period 1726 to 1776 (Hume 1970; 92). This type is characterized as having a soldered "U" eye, flat back, and is described further as having a hole in a round face. The second metal button (Fig. 27k) has a round face with the eye

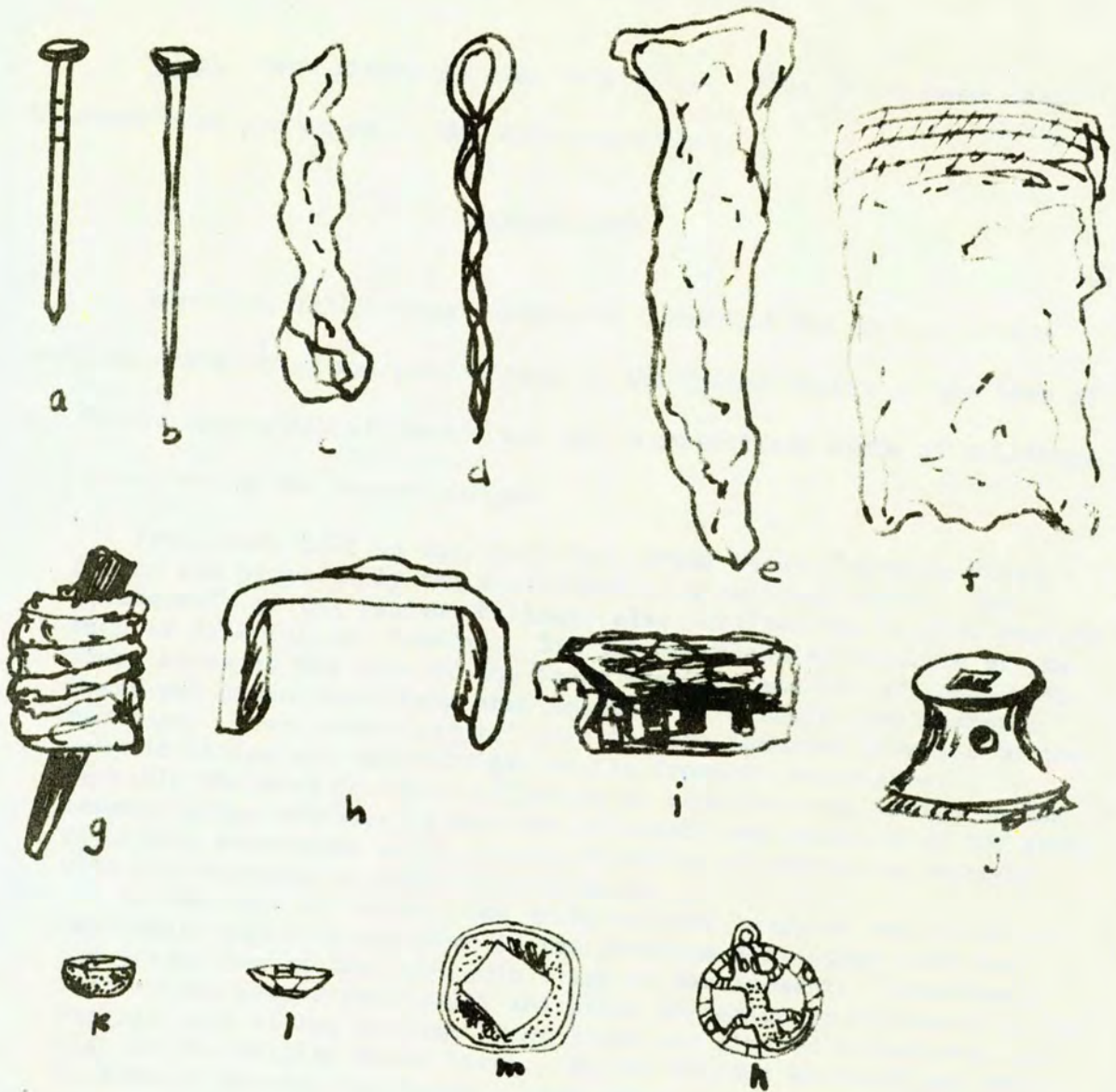


Figure 27. Miscellaneous Metal Artifacts

soldered. The seam of this button has been brazed or polished. Its type is dated to the 18th century (Hume 1970:62).

Slag. Some pieces of slag were found. This is evidence that blacksmithing did go on at the Webb properties.

ARCHITECTURE

Robert M. Lillibridge (1960:114) described the typical architectural style which was predominant in the United States at the time of the Mormon occupation of Nauvoo and the architectural style of buildings in Nauvoo during the Mormon period:

From about 1820 to the Civil War, Greek Revival architectural design was practically the equivalent of a national style. The antecedents of the various builders also involved the earlier designs such as Colonial and Federal. But the intellectual elements of the times stressed the rise of the young republic and its affinity with Greek and Roman republican eras together with their architectural heritage. These architectural results were tempered likewise by the practicalities and vicissitudes of the frontier experience. Probably the most decisive influence on architectural design in the communitarian settlements was the intensity and duration of the group religious experience which caused rejection of prevailing society with its emphasis on architectural modes.

In the case of Nauvoo, the architectural response was close to that which might be expected in the prosperous frontier town that had passed beyond the log-cabin stage of development. Undoubtedly most of the houses were small and plain in design as evidenced in the central part of the Brigham Young House and kindred structures, and also in the William Marks House. In the Wilford Woodruff and Heber C. Kimball houses, the Colonial and Federal tradition in structural proportion and detailing was evidenced, and culminated in the Mansion House of Joseph Smith. In the John Taylor and Orson Hyde houses the Greek Revival elements were dominant, and yet they were used in a restrained manner, and without the exuberance found in the more established and affluent sections of the country. In Nauvoo, only the Temple combined a distinctive architectural mass and original details to reflect fully the unique amalgam of Mormon religious approach.

In one respect the Chauncey Webb house is not typical of other brick houses constructed in Nauvoo during the Mormon period. It does not have a stone base under the brick wall. Instead of the stone base it has a

full basement and the entire foundation is brick. There appears to be at least two types of brick in the house walls. Most of the walls are made up of brick made in the Mormon period. About six feet of the lower part of the walls contained a type of pressed brick in 1969, when observed by Rowena J. Miller (N. R. I. 1968; Memorandum). The surface is called a "water-struck brick. It is possible that this brick was added during a renovating job. Weathering may have taken place below on the walls and decomposed the original brick. As mentioned in the previous chapter on excavation, the house had been changed and reconstructed since the Mormon period with doors and windows being changed and brick work being added.

SEEDS

Some seed samples were taken from a deposit of human waste in Outhouse #2, which was located in Trench #3. The depth from the surface of sample was 1.0' - 1.5'. Dr. Stanley L. Welsh, Professor of Botany at Brigham Young University, identified the seeds as follows:

<u>Genis</u>	<u>Common name</u>
Fragaria	Strawberry
Vitis	Grape
Amaranthus	Red-root Pig Weed
Unidentified	Unidentified

Mr. Walter Liddiard, the greenhouse supervisor for botany at Brigham Young University, made a germination test on the seeds with no results.

BONES

Dr. Lynn Hayward of the Brigham Young University Zoology Department, identified the following types of animal bones from the Chauncey Webb site. The listing below tells of the locations or levels of the ground at the site, by using box numbers which had been written on the bones.

Bones found at Level #1 were: Rabbit (Lagomorpha), hog (Suidae), rodent (Rodentia), cow (Bovidea), chicken (Phasiandiae), and cat (Felidea). Found in Outhouse #4 were chicken (Phasiandiae) bones. Cat (Felidea) was found in Outhouse #5; pigeon (Columbiformes) bones in Level #6. Bones of the ground squirrel (Sciridae) were in Outhouse #1; those of the duck (Aves) in Outhouse #2; and Raccoon (Procyonidae) in Outhouse #5.

It seems that there are two reasons for so many animal bones being found in the outhouses. The first reason is the possibility that the bones from the table were discarded in the outhouses after the completion of a meal. This would explain the presence of the chicken, duck, and possibly the raccoon bones. The second reason stems from the idea that some animals like to use structures such as outhouses to live in or for shelter. This could explain the presence of the ground squirrel, rabbit, and cat bones although all of these animals could have been eaten as well as those mentioned first.

There were two types of bone buttons found at the Chauncey Webb site. The first type (Fig. 28c-3) had some variation. The first variety (Fig. 28c) had a centering hole for cutting. It had a flat back and five holes in a sunken panel. The Webb site contained four buttons of this variety. The difference with this first variety and the second variety

concerns the centering hole. The edge of the centering hole on the first variety was smoothly rounded while the second variety, consisting of three buttons, was embossed with concentric rings from the centering hole to the rim (Fig. 28e).

The buttons of the next type also varied slightly. Their appearance can be described (Fig. 28f) as having a centering hole with four small holes. They had a wide rim and a rounded back. Three of these buttons were $5/8$ " in diameter and the fourth was $1/2$ " in diameter. All buttons made of bone ranged in color from buff to dark brown. Bone buttons were plentiful from 1800 to 1865 (Hume 1970:92).

SHELL

A few bits of shell were found at the Chauncey Webb site. The shell buttons found there are of the most interest. Figure 28a shows how the six shell buttons of the sleeve type appeared. They are $3/8$ " in diameter and are made of mother of pearl. They can be described as having a sunken panel with two holes and a flat back. Their appearance is pearly white. One larger shell button may have been used as a coat button (Fig. 28b). Shell buttons were found to be plentiful in the period dating from 1837 to 1865 according to Stanley South (Hume 1970:90).

LEATHER

There were two types of leather footwear found at the Chauncey Webb site. The first was a woman's shoe. The small heel was all that could be positively identified. Out of the woman's shoe heel protruded wooden pegs. The second type of footwear was a pair of man's boots. From the heel to the place where the ball of the foot rests was

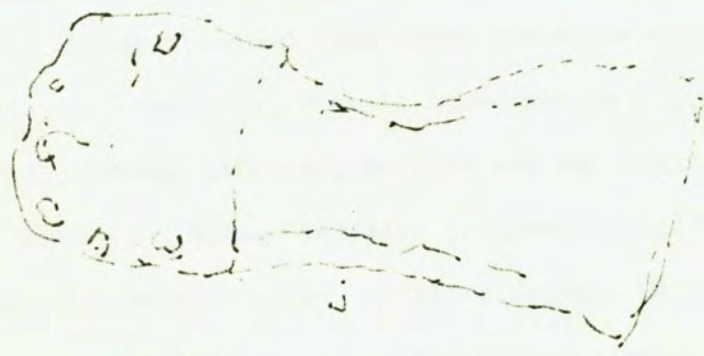
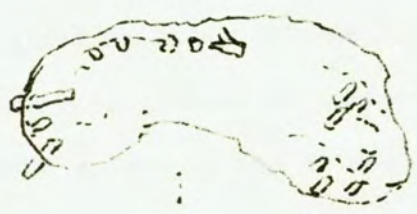


Figure 28. Miscellaneous Artifacts

measured $6\frac{1}{2}$ ". There was a series of seven thicknesses of leather which made up the heel of the boots. Screws had been driven into this heel.

Shoes were hand driven with wooden pegs in the Western world until the 1800's. In 1822, however, a German shoemaker, Brecht, from Stuttgart began to use screws for "joining soles and uppers" (Fontana and Greenleaf 1962:105). Using this information as a dating indicator, the woman's shoe would probably have been made in the early 1800's and the man's boots in the late 1800's.

PLASTICS

History of Plastics

The term plastic is applied to any organic substance susceptible of being molded or shaped by casting or spinning, and retaining its shape under ordinary conditions of temperature. In modern usage plastic is restricted to a large group of mostly synthetic compounds made up of organic molecules in certain complex predetermined combinations. Many times plastics are described as being manufactured from coal, air and water; but are synthesized from other common materials such as cellulose from cotton or wood pulp, organic acids and many products produced by chemurgy from corn, potatoes, peanuts and soy beans.

About 1900 German industry produced a plastic material made by hardening of casein of milk with formaldehyde, but because of inherent weaknesses, it is little used in the United States except for small objects such as buttons and buckles and for paints.

Leo Hendrik Baekeland was the first to introduce plastics made by the thermosetting of synthetic resins in 1909. His product was patented under the name "Bakelite" until the expiration of the basic patents in 1926.

Urea-formaldehyde plastics were introduced in 1929. Their light weight, high shock resistance, and general chemical inertia (being odorless, tasteless and infusible) led to their extensive use as table-ware. From this time on, plastics in many varieties and uses have been growing each year.

In 1940 the large-scale production of polyamide resins was begun. These plastics were called Nylon resins. These nylon plastics are used in innumerable ways. Orlon, Dacron, etc., are used in women's and men's apparel. Plastics may be formed in many ways, but most of it is formed by molding. The finished article is sometimes stamped or machined to form the desired item. Plastics are used to manufacture many items from yarns and threads to harden parts for moving machinery (The Universal Standard Encyclopedia 1955;6686-6688).

Plastic Artifacts

Artifacts found at the Chauncey Webb site consist of the cab of a toy army truck and a fire melted salt shaker. Using the above history of plastic for dating purposes, these artifacts would have been made after 1929.

MISCELLANEOUS ARTIFACTS AND MATERIALS

Two wooden artifacts were found. They are a cork 1" x 5/8" and a wooden handle for a tool 7½" x 7/8" (Fig. 28g-h). For further information on the use of the cork, see section on bottles.

Some fragments of a tar shingle and a rubber ring from a fruit jar were also found. There were also some pieces of slate, cement and stones of various types.

Chapter 6

DATING THE ARTIFACTS FOUND AT THE CHAUNCEY WEBB SITE

In Chapter 5 of this thesis the various artifacts which were found at the Chauncey Webb site were analysed and dated in categories of materials of which they consisted. The artifacts were then dated according to dates of manufacture by particular methods of manufacture when possible. For example bottles with the glass closures which were made after the Mason design would date after Mason's patent of 1858. By far the most valuable and accurate means of dating historic artifacts is by the use of company trade-marks. This was done by first identifying the company which made the particular trade-mark, and then the trade-mark was further researched to find at what particular time the company used that particular trade-mark. The second step just mentioned is not always possible, however, if the date of the firm's incorporation can be established, this can give us a general date to work with.

Table No. 12 was made to show the relationships of the most positively dated artifacts found at the Chauncey Webb site to their general time of manufacture and use. The last section of this table also shows how some of the artifacts dated can indicate the period of use of various structures at the site. Unfortunately a great many of the dated artifacts came from general levels of soil and were not found in direct conjunction with the structures (see sherd distributions). For these structures we will have to rely on the observations made by

the excavator at the time of excavation (See Chapter 4).

Using Table 12 to date the structures by using the information that can be obtained, the following conclusions are reached; (1) The basement original floor and basement upper fill both have artifacts in them which could date to the Mormon period of occupation; the artifacts in the basement show no apparent distinct levels of deposits. (2) Outhouses #1 and #4 seem to have the oldest artifacts, which confirms the observations made during excavation as detailed in Chapter 4. Either one or both of these outhouses could have been in use during the Mormon Period. (3) Outhouses #3, #3 and #5 seem to have artifacts which date into later periods of time which may indicate that they were used in the post-Mormon period.

It is necessary to return to the observations made by the excavator, Dr. Dale L. Berge, to date the remaining structures. The windows found in Trenches #2, #3 and #4 were found to be originals. The window found in Trench #5 was not an original. Speculation was that Structure #2 belonged to the Mormon period.

Artifacts, in general, were found at the Chauncey Webb site which date through the Mormon period and right up to the present time. This information verifies the information presented in the house history.

Table 12

Dating

	1750	1775	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
ARTIFACTS																			
POTTERY																			
<u>Whiteware</u>																			
G. S. Harker Co.											X	-----	?						
William Brunt Pottery Co.												X	-----	?					
<u>Stoneware</u>																			
Hanley, J&G Meakin Co.										X	-----								
Crown Pottery Co.												X	-----						?
Homer Laughlin China Co.										X	-----								?
Martha Washington										X	-----								?
<u>Porcelain</u>																			
St. Mary's Academy										X	-----								
Made in Germany																		X	-----
GLASS																			
<u>Bottles</u>																			
Kerr												X	-----						
Hero Fruit Jar Company										X	-----	X	-----						
Pepsi Cola													X	-----					
Nesbitts of California																		X	-----
Patent Medicine	X	-----																	?
Fitches																			?
Stuarts Ink																			?
Eagle Flask									X	-----									?
Hazel-Atlas																			?
Vicks																			?
Brockway																			?

Table 12 (continued)

ARTIFACTS	1750	1775	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
<u>GLASS (continued)</u>																			
<u>Bottles</u>																			
Owens-Illinois Company										X									
Putnam Flint Glass Works								X											?
Blowpipe pontil scar					?		X												
<u>Miscellaneous Glass</u>																			
Pressed glass					X														
Bar tumbler							X												
Porcelain buttons						?							?						
<u>METAL</u>																			
<u>Coins</u>																			
Lincoln head cent																			X
<u>Cartridges</u>																			
Rimfire									X				?						
Centerfire											?								
<u>Shotgun Shell</u>																			
Centerfire								X											
<u>Tools</u>																			
Machine cut nails						?		?											
Wire nails								X											
<u>Car Parts</u>																			
License plate light																			X
Champion spark plug H-10																			X

Table 12 (continued)

ARTIFACTS	1750	1775	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
<u>METAL (continued)</u>																			
<u>Horse Trappings</u>																			
Rumbler bell	X												?						
<u>Household Items</u>																			
Tin can lid with hole				X															
Sardine can & Key Opener													X						
<u>Buttons</u>																			
Tin	X		?																
<u>BONE</u>																			
Buttons							?			X									
<u>SHELL</u>																			
Buttons							X			X									
<u>LEATHER</u>																			
Woman's Shoe						?													
Man's Boots					X														
<u>PLASTICS</u>														X					

Table 12 (continued)

ARTIFACTS	1750	1775	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	
STRUCTURES																				
<u>Basement Original Floor</u>																				
Hanley, J&G Meakin Co.											X									
Shell button						X			X											
Porcelain button						?														?
<u>Basement Upper Fill</u>																				
Blowpipe pontil scar						?		X												
<u>Outhouse #1</u>																				
Porcelain button						?														?
Bone button						?				X										
<u>Outhouses #2 and #3</u>																				
Made in Germany																				X
Sardine can key													X							
<u>Outhouse #4 B</u>																				
Stuarts Ink																				?
Porcelain button						?														?
Eagle Flask						X														
<u>Outhouse #5</u>																				
Pressed glass						X														

Chapter 7

SUMMARY

The site of Nauvoo, Illinois, is located on the banks of the Mississippi River in the state of Illinois. The history recorded of this site begins with the occupation by the Sauk and Fox Indians. They were replaced by white settlers led by James White in 1823. Isaac Galland purchased the Whites' house and lands adjacent in 1836. In 1839 members of the Mormon Church purchased two large farms in the vicinity of Commerce, Illinois, from Isaac Galland. The Mormons changed the name of the city to Nauvoo at a later date. This ends the pre-Mormon period and begins the Mormon period of occupation in Nauvoo. In the few short years that followed the purchase of Commerce, the land was incorporated into the Mormon settlement of Nauvoo. The Mormons settled this area and prospered in it. Nauvoo became the largest city in Illinois at the time of Nauvoo's prime. Chauncey G. Webb and his family moved to Nauvoo in this Mormon period. Chauncey's family, including his father and brothers were blacksmiths, handcart and wagon makers. They moved onto Block 127 of the city of Nauvoo and started a blacksmith and wheelwright business there. There is a record of a warranty deed dated June 25, 1844 from Joseph B. Noble and Mary A, his wife, of Hancock County, Illinois, to Chauncey G. Webb of Hancock County, Illinois, which sells the "north half of the southeast quarter of Lot 4 in Block 127 in the City of Nauvoo, Hancock County, Illinois", (N. R. I. 1968) for a consideration of \$150.00.

The exact date of the house construction at the Chauncey Webb site is not known but it would be very close to the time of the date of the deed. On February 4, 1846 the first body of Mormons crossed the Mississippi and started westward on their long trek to the Rocky Mountains and the Salt Lake Valley. In 1848 Chauncey Webb and his family left Nauvoo for the Rocky Mountains. This ended the Mormon period at the site and began the post-Mormon period. The site then changed owners down to the year 1962 when Dr. Kimball purchased the property. Dr. Kimball is one of the founders of Nauvoo Restoration, Incorporated, the company which sponsors the archaeological investigations done at the Chauncey Webb site. The first exploratory trench was dug by J. C. Harrington's crew in the summer of 1968. The rest of the excavation was conducted by Dr. Dale L. Berge and his crew in the summer of 1970.

While excavating, artifacts were placed in bags or boxes according to bag number, excavator, date excavated, location, such as Trench 4, level or layer, such as Level 1, and depth from the surface. Arbitrary levels were dug down 6 inches at a time until distinct layers of soil could be discerned and followed. The 100-foot elevation datum was set at the north end of the front door sill. The architectural structures and natural features were drawn and photographed as the excavation progressed. During the summer of 1970 while excavation was going on at the Chauncey Webb house site much of the preliminary work was done with the artifacts from the site to prepare them for shipment to Brigham Young University's archaeological laboratory.

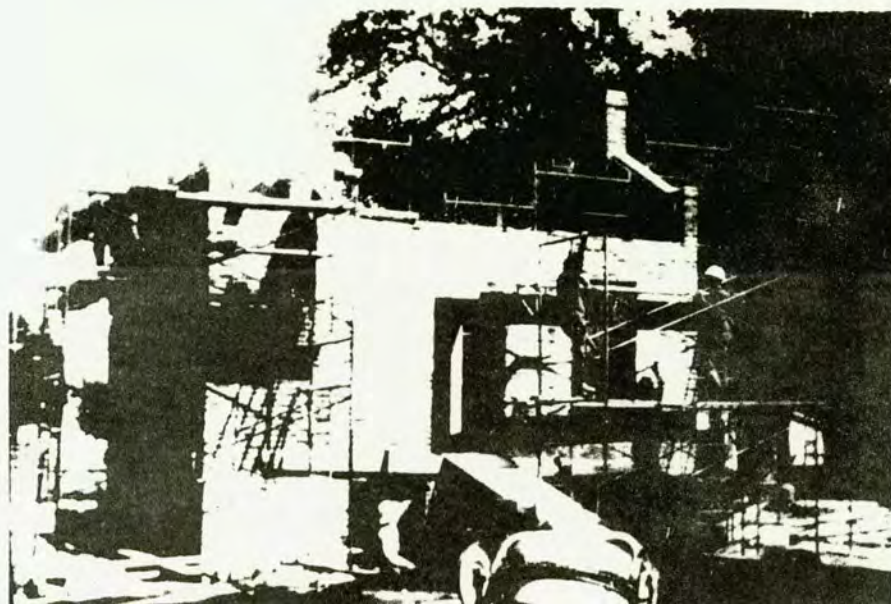
At the Brigham Young University archaeological laboratory the author undertook the project of writing a site report on the Chauncey

Webb house site. This procedure entailed analysing the field notes as well as restoring, describing and analysing the artifacts found at the site. In doing the laboratory analysis the artifacts were laid out on tables according to bag or box number. This number corresponds to a provenience as recorded by Dr. Berge during excavation. The boxes were then organized on the tables according to trenches. Then each sherd was labeled, with India ink, according to its site number and box number. Following the labeling the artifacts were glued back together, as in the case of ceramics and glass. The artifacts were classified into types and in some cases varieties, all within their own kind of material categories, such as ceramic, glass and metal. Trade-marks and methods of manufacture were researched in reference books to find the names of the manufacturers and at what date they made the particular artifact. A comparative table was tabulated concerning dates of artifact manufacture, comparing the artifact manufacture dates with each other. Using Table 12, the following conclusions were made: (1) The basement original floor and basement upper fill both have artifacts in them which could date to the Mormon period of occupation; the artifacts in the basement show no apparent distinct levels of deposit. (2) Outhouses #1 and #4 seem to have the oldest artifacts, which confirms the observations made during excavation detailed in Chapter 4. Either or both of these outhouses could have been in use during the Mormon period. Outhouses #2, #3 and #5 seem to have artifacts which date into later periods of time which may indicate that they were used in the post-Mormon period.

Unfortunately a great many of the dated artifacts came from general levels of soil and were not found in direct conjunction with

Photo 3. Reconstruction of Chauncey Webb House, 1970

Photo 4. Chauncey Webb House Site After Reconstruction, 1971



3



4

Photo 5. Rear of Chauncey Webb House During Excavation, 1970.

Photo 6. Restoration of Artifacts.

Photo 7. Restoration of Artifacts.



5



6



7

the structures (See sherd distributions). In dating the remaining structures it was necessary to return to the observations made by the excavator. These observations indicated that the windows found in Trenches #2, #3 and #4 were found to be originals while the window in Trench #5 was not. Structure #2 was speculated to have belonged to the Mormon period. Observations made during excavation helped establish the historic grade as being about 95.85' in elevation.

In general artifacts were found at the Chauncey Webb site which date through the Mormon period and right up through recent times. This would indicate that the site was occupied from the Mormon period up to the present time. This information verifies that printed in the house history. The presence of slag at the site indicates that some blacksmithing could have taken place at the house site. Further evidence supporting the thought that blacksmithing took place on the Webb properties was the wagon brake part which appears to be worked by a blacksmith, that was found in the basement upper fill (Fig. 23g).

The Chauncey Webb house site has not been restored by Nauvoo Restoration, Inc. The remodeling was completely finished by August 1970. The soil from deposits later than that of the historic grade have been bulldozed of (Personal correspondence with Dr. T. Edgar Lyon and conversation with Dr. Dale L. Berge). For an idea of how the Chauncey Webb house site looks after being restored see Photographs #3 and #4.

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ARCHAEOLOGICAL EXCAVATIONS AT THE CHAUNCEY WEBB SITE (127-4)

NAUVOO, ILLINOIS, 1970

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ABSTRACT

The results of archaeological excavation and laboratory analysis of artifacts from the Chauncey G. Webb House Site, Nauvoo, Illinois, are herein reported. The purpose of the report and the history of archaeological investigations at the site are explained. Next is given a brief history of the city of Nauvoo, Chauncey G. Webb and the site using historical records and the pre-Mormon, Mormon, and post-Mormon periods are discussed. This is followed by a description of the site before excavation. The method of excavation is then described. The results of the field work are given in the form of a description and analysis of the architecture, pottery, glass, metal, bone and etc. Dating the site and its artifacts is then done by using references to date the archaeological evidences. Restoration of the artifacts and the site are discussed.