

The Mormon Utopia Kitchen: Foodways and Diaspora in the Nauvoo, Illinois Community

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Chelsea C. Pincock

Major Professor: Mark Warner, Ph.D

Committee Members: Katrina Eichner Ph.D, Lee Sappington, Ph.D., Shane Baker M.A.

Department Administrator: Brian Wolf, Ph.D

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Authorization to Submit Thesis

This thesis of Chelsea C. Pincock, submitted for the degree of Master of Arts with a major in Anthropology and titled “The Mormon Utopia Kitchen: Foodways and Diaspora in the Nauvoo, Illinois Community,” has been reviewed in final form. Permission, as indicated by the signatures and dates given below, is now granted to submit final copies to the College of Graduate Studies for approval.

Major Professor: _____ Date _____
Mark Warner, Ph.D.

Committee
Members: _____ Date _____
Katrina Eichner, Ph.D.

_____ Date _____
Lee Sappington, Ph.D.

_____ Date _____
Shane Baker, M.A.

Department
Administrator: _____ Date _____
Brian Wolf, Ph.D.

Abstract

Nauvoo, Illinois is a small town, known today as a summer tourist destination because of rich religious history of the Church of Jesus Christ of Latter-day Saints (LDS or Mormons) and other branches of the Mormon restoration movement such as the Community of Christ church. The last several seasons (2015-2019) were spent excavating the property of Samuel Harrison Smith, brother to Joseph Smith who was the first LDS prophet of the church. The excavations revealed a small foundation to a Mormon period structure along with about 35,000 artifacts, suggesting it must have been a sort of community structure if not a community waste disposal area. This thesis presents the faunal remains and the ceramics will help to understand the foodways of Mormon people as a community and others living on the frontier during the Mormon occupation of Nauvoo. Results of the artifact analysis have revealed patterns of diasporic behavior of a religious group holding on to a life they knew while also adapting to changes their movements bring.

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Definition of Terms and Acronyms

Anti-Mormon One who openly opposes the Mormon church (or Church of Jesus Christ of Latter-day Saints) and strives to lead church members away from the faith via spoken or written word and/or violence

Community of Christ Formerly known as the Reorganized Church of Jesus Christ of Latter-day Saints

Joseph Smith Historic Sites The historic sites dealing with the Smith family in Nauvoo, owned by the Community of Christ Church

LDS Short for Church of Jesus Christ of Latter-day Saints. It does not include members of the RLDS church

MNI Minimum Number of Individuals. Used to describe the minimum count of possible individuals represented in the faunal assemblage

Mormon Used interchangeably with the term Saints. Nickname for the Church of Jesus Christ of Latter-day Saints. This is no longer recognized by the church, but it is acknowledged as a term in the church's history. It is used in this thesis to describe the church and its members before the exodus from Nauvoo in 1846 since this marks the time that some members split and created their own church rooted in a common history.

MVC Minimum Vessel Count. Used to describe the minimum count of possible ceramic vessels represented in the ceramic assemblage.

NISP Number of Identified Specimen. Used to describe the total bone fragment count

Non-Mormon One who is not a member of the Mormon church or Church of Jesus Christ of Latter-day Saints

RLDS Reorganized Church of Jesus Christ of Latter-day Saints. It is now known as the Community of Christ church; however, there are still groups that do not identify with the Community of Christ church and refer to themselves as RLDS, or formally, Restorationist

Saints Used interchangeably with the term Mormon. It is a shortened nickname for the Church

of Jesus Christ of Latter-day Saints. It is used in this thesis to describe the church and its members before the exodus from Nauvoo in 1846.

CHAPTER 1

Introduction

Nauvoo, Illinois, is a small town in west-central Illinois (Figure 1.1; Figure 1.2). It is known today as a summer tourist destination because of its rich history associated with the Church of Jesus Christ of Latter-day Saints (LDS) and other branches of the Mormon restoration movement, including the Community of Christ Church (Formerly the Reorganized Church of Jesus Christ of Latter-day Saints [RLDS]). It is also a town that has hosted historical archaeology projects for over 40 years (Bray 1973; Bray 1972; DeBarthe 1982; DeBarthe 1979; DeBarthe 1984; DeBarthe 1976; Pykles 2010).

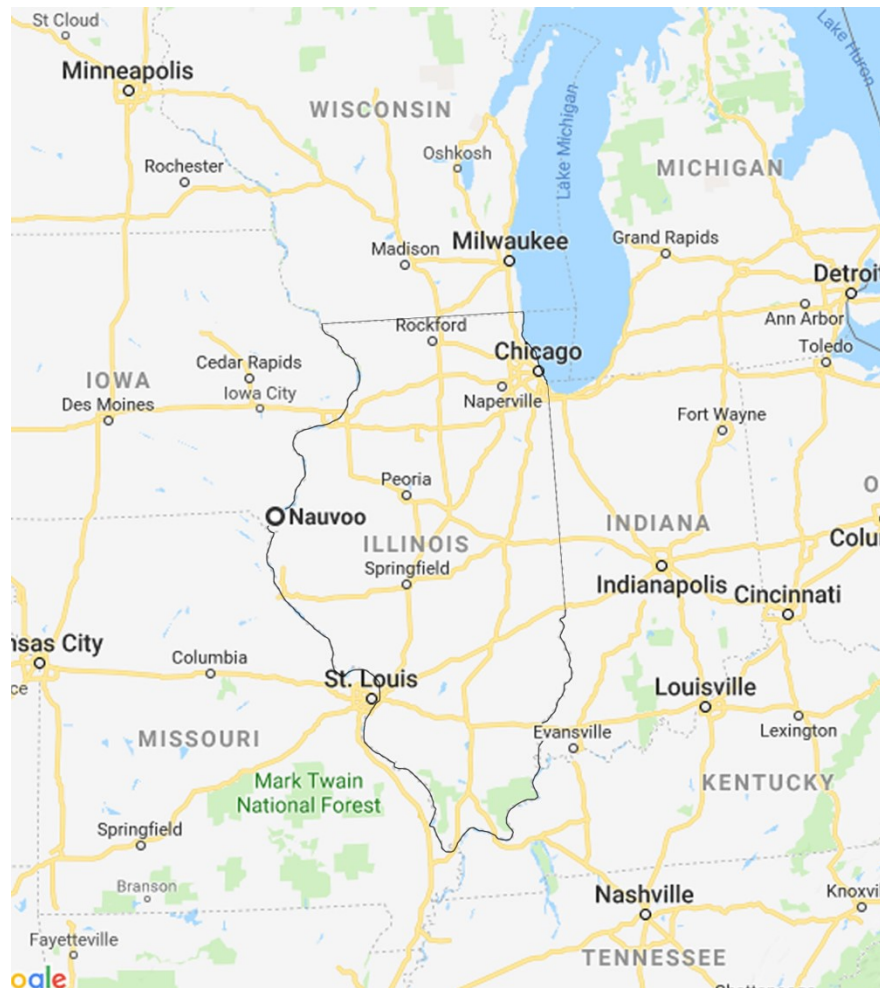


Figure 1.1: Nauvoo, Illinois location

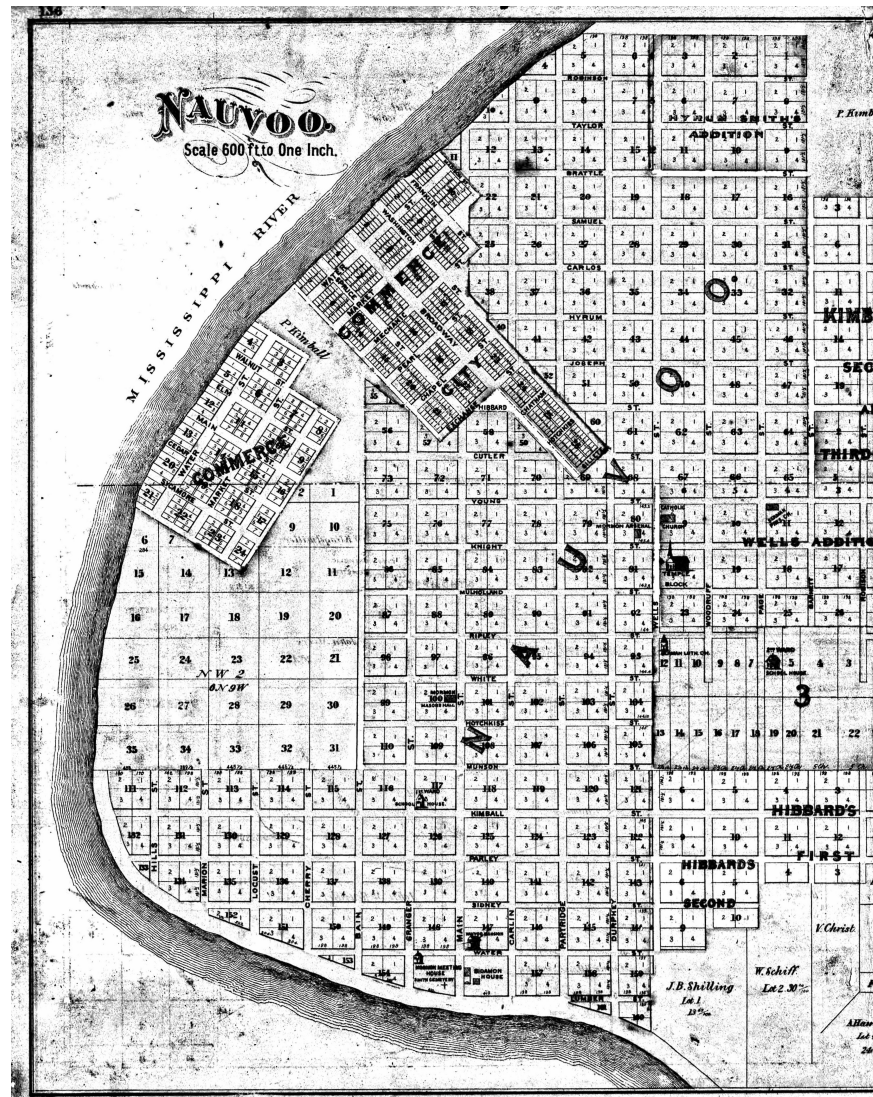


Figure 1.2: Platt map of Nauvoo showing how it appeared in 1874. Courtesy of the Land and Records Office, Nauvoo.

Archaeological excavations in Nauvoo began in the 1960s and continue today as part of a long-term project to restore the town as it looked during the Mormon era from 1839 to 1846. However, this area has been occupied for thousands of years by many other groups besides the Mormons. These groups include the Sac and Fox Tribes, the Icarians, German, French, and Irish immigrants. For many of these groups, Nauvoo became a place of peace and refuge and was a symbol of utopia and new beginnings as these Nauvoo settlers were often forced out of locations they wanted to call home. For the Mormons, they hoped Nauvoo would be the final place where they settle for the

long term, though many had wanted to stay in Missouri where they believed it was prophesied by Daniel in the Old Testament to be the final gathering place before Christ's second coming (KJV Dan 7:13; D&C 115:7, 116, 117:8). Even so, once the saints were forced to leave Missouri, they hoped Nauvoo would give them the peace and freedom they sought.

Nauvoo provided a location where the Mormons could settle for seven years, longer than they had been in any other location. Eventually, however, the saints were forced to leave Nauvoo and travel far beyond the established locations of the Midwest and eastern United States to the Salt Lake Valley, a place still within the borders of Mexico. Since that time, the headquarters of the Church of Jesus Christ of Latter-Day Saints has remained in Salt Lake City, Utah. Nonetheless, many church members desire to visit the place of their ancestors either in Nauvoo or other locations where the saints had once settled.

Interest in Nauvoo as a historic site began in 1893, when the Nauvoo house went up for auction. One of Joseph Smith's (the first prophet of the Mormon church) sons, Alexander Hale Smith, took an interest in the Nauvoo House and Nauvoo as a historic site while the rest of his siblings moved away and severed their ties to Nauvoo (Esplin 2012). He convinced the RLDS church to again take an interest in Nauvoo and acquire property there. Though the church failed to get the Nauvoo House in 1893, they later purchased it in 1909 (Esplin 2012; Shireman 2005). From 1909 until 1963, the RLDS (Community of Christ) church continued to acquire the land that now makes up the Joseph Smith Historic Sites in Nauvoo (Shireman 2005).

The LDS Church also had an interest in Nauvoo. In 1937, they bought the land where the original Nauvoo temple stood with plans to reconstruct the temple (Figure 1.3). The reconstructions, however, would not happen until years later so that the church could use money to purchase other historic sites and homes in Nauvoo. They did so in the 1950s, buying a series of homes and their lots. This led to the formation of the Nauvoo Restoration Incorporated (NRI) in 1963 (Esplin 2012). NRI is a non-profit organization with the goal of restoring Nauvoo to how it looked in 1846 when the mass exodus to Salt Lake began (Pykles 2010).



Figure 1.3: Nauvoo Temple, 2018. Photo by author.

The beginnings of NRI marks the start of archaeology projects in Nauvoo. The archaeology led to reconstruction of many sites in Nauvoo; sites owned by the LDS church, but also the RLDS church (Pykles 2010). NRI has reconstructed many roads, buildings, stores, and homes as they looked in the Mormon Nauvoo (Jeffress 1991). Robert T. Bray was an archaeologist that worked on many sites in Nauvoo in the 1970s. He directed excavations on several sites associated with Joseph Smith Historic sites including the Red Brick Store, the Times and Seasons building, and the Turley House (Bray 1972; Bray 1973). Paul DeBarthe was the next major contributor to Nauvoo archaeology and Joseph Smith Historic Sites. He was involved in many excavations including the Mansion House Latrine, the Mansion Hotel, the Joseph Smith Homestead complex, and several others (DeBarthe 1979; DeBarthe 1982; DeBarthe 1984). More recently (2013), the Samuel H Smith Foundation was organized to help with the “...preservation and sharing of strong and valued legacies” by preserving history through archaeology and restoring of historic buildings of Mormon Nauvoo (samuelhsmith.org). Robert Smith (a descendant of Samuel Smith) founded this program and continues to conduct archaeological work on the Joseph Smith Historic Sites.

The last several summers (2015-2019) of the project were spent excavating the property of Samuel H. Smith, brother to Joseph Smith who was the first LDS prophet and organizer of the church. The project is directed by Paul DeBarthe as the archaeological lead, and Robert Smith

as logistics and organization lead. The excavations revealed a foundation to a Mormon period structure, as well as around 30,000 artifacts. This thesis examines a portion of the materials from this excavation. The analysis of faunal remains and ceramic artifacts will help to understand what life was like for Samuel Smith and other residents of Nauvoo.

1.1 Project Goals and Description

This thesis reports on the results of my analysis of the foodways and consumption patterns based on faunal and ceramic material excavated from a site that was once property of Samuel Smith. The first goal is to better understand the foodways. This work will help answer questions such as: What meat was valued and preferred by the community? How was the meat acquired? How was the meat and other food stored, prepared, and served? What do the bones and ceramics say about social status and other identities of the residents? Do the ceramics give evidence of functional or social dining practices? What does the data say about site function? While I do not have conclusive evidence, the artifact assemblages also provide clues as to what structure once stood at the site and some of the behaviors and functions associated with it.

A second goal is to use foodways to illustrate how food played a significant role in community building among the Smith family and neighbors. Foodways are very indicative of cultural practices, social structures, and values within a society. The artifacts give insight into how the community worked together and how their experiences shaped Mormon identity in the Midwest. These research goals and questions can contribute to our understanding of the LDS and Community of Christ communities on the frontier during the first half of the 19th century.

1.2 147-1 Site Description

Excavations at site N147-1 began in 2015 under the direction and organization of Bob Smith and Paul DeBarthe, and I joined the excavations in 2018. The foundation of the building had already been fully exposed by 2017, revealing the dimensions of 12 feet 9 inches by 16 feet 9

inches (Figure 1.4). The floor of the building begins at about two and a half to three feet below the surface. It is about a foot thick of limestone foundation rock. Excavations in the summer of 2018 involved opening two excavation units in what would have been the front of the building. In some units, foundation stones were found, and the project crew wanted to find what more the excavations would reveal.

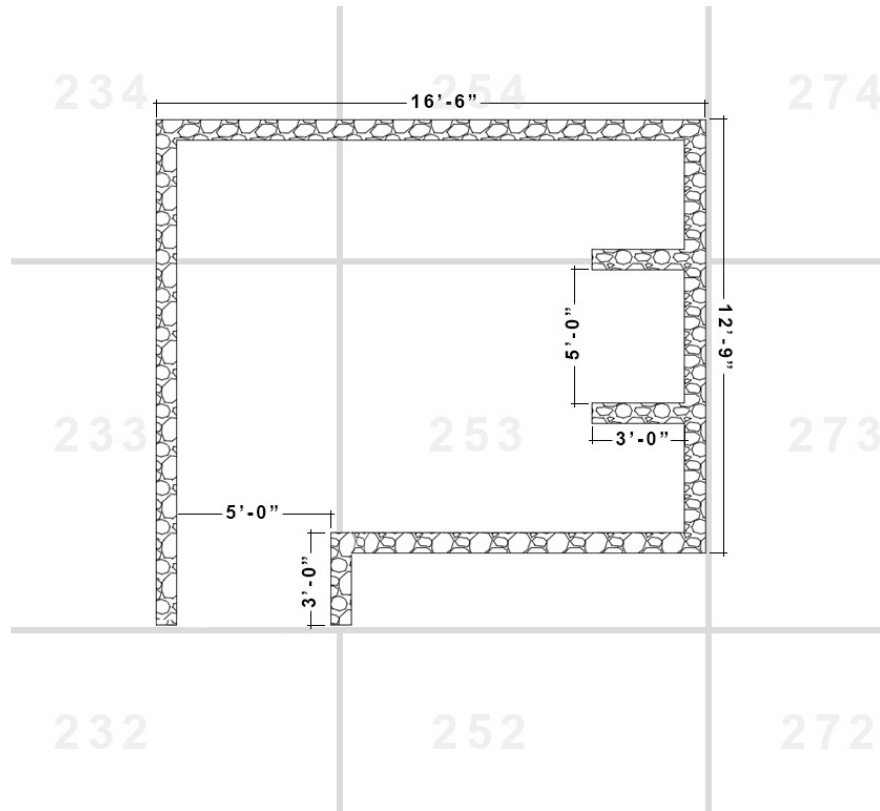


Figure 1.4: Excavated structure and excavation units. Map by Alayne Zollinger.

The stones scattered outside the foundation are most likely evidence of a fallen wall (Figure 1.5). Many artifacts were found among the wall fall, including tablewares, window glass, nails, scattered foundation stones, utilitarian ceramics, and animal bones. However, many (41%) of the artifacts were found within the structure's interior (n=4214).



Figure 1.5: Scattered foundation stones indicating wall fall or demolition. Photo by Shane Baker.

The excavation units were each 10 feet by 10 feet square and were excavated in arbitrary two-inch levels. The excavation units were sometimes divided into quarters (5 feet by 5 feet square) and were labeled as either NW, NE, SW, or SE of the specified square number (Figure 1.6).

2018 Map of Excavated Squares and Structure Foundation

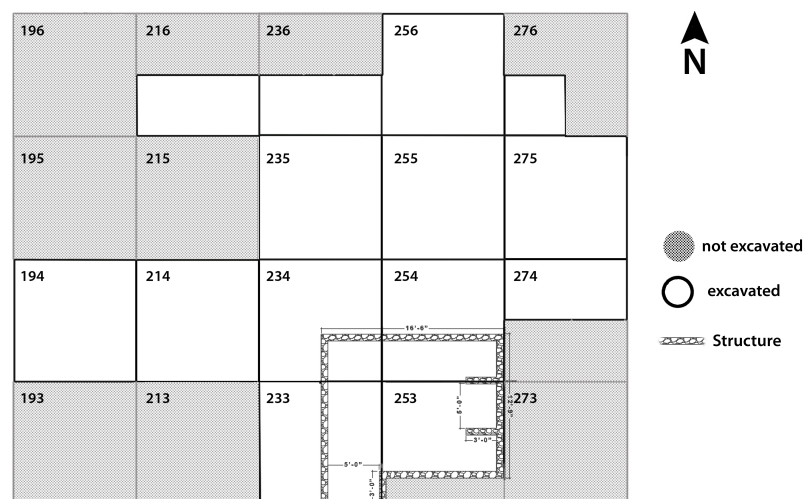


Figure 1.6: Layout of excavated units and structure foundation

The artifacts were washed, and their location and other details were recorded into an Excel spreadsheet as each level of each square was finished. The spreadsheet also recorded the artifact material class (earthenware, stoneware, bone, metal, etc.), along with the possible form and function. Once the artifacts were recorded, they went into the archaeology lab in Nauvoo located in the basement of Joseph Smith's old Red Brick Store. The lab is also open for tours and the recovered artifacts are put on display for visitors to see. One member of the crew takes these displayed artifacts and attempts to reconstruct the ceramic and glass vessels for display both in the lab and, later, in the reconstructed building of the corresponding site.

1.3 Project Mysteries

The site's function is unclear due to a disturbed archaeological context and incomplete documentary record. Project leaders initially believed the site to be the home site of Samuel Smith and his family. However, the foundation is smaller (12 feet 9 inches by 16 feet 6 inches) than other contemporaneous homes in Nauvoo and the deep foundation suggests the building could have been used for other purposes. A small home in Nauvoo was, on average, 16 feet 6 inches by 20 feet (Sanborn 1893). The bulk of the artifacts were found within the foundation interior suggests that this was a dumping location for a time. There is also a large scatter of artifacts outside of the building indicating a secondary deposition from demolition or ground leveling. On the other hand, many artifacts found within the foundation are more intact indicating a primary deposition that was left largely undisturbed. The artifacts both inside and outside the foundation include a large variety of household-type objects such as tablewares, bottle glass, stonewares, and toys. One point to note, however, is that this land has been disturbed from either plowing or landscaping for several years since whatever structures on the site had fallen.

Problems also exist in the historic records and documentation associated with the site. A biography of Samuel Smith says that Smith and his family lived in Nauvoo around the winter of 1841 and into the summer of 1842. In the fall of 1842, he moved to Plymouth, Illinois, with his brother, William, eventually purchasing his own land on which to live and farm. He moved back to Nauvoo

in 1844 a few weeks before he died (Jenson 1901). Property taxes (Nauvoo City 1842; Hancock County 1842) of the city and the county show that he owned property and multiple lots in Nauvoo, one of them being the west half of block 147 lot 1, the site this project focuses on. However, there is no clear record of him residing in this spot. The property taxes never mention a home, only that he has property including horses, cattle, and wagons (Hancock County 1842; Nauvoo City 1842). The LDS Census records of 1842 list (Assessor's Book 1842) all the residents of block 147 and the Smiths are not named here.

One of the most perplexing documents I found was a map in a collection at the LDS Church History Library (Hancock County n.d.). This historic lot map was likely created in the 1960s to 1970s for a land survey and depicts historical building locations. A few buildings drawn on the map of 147-1 are still standing. On the west half of block 147 lot 1, there is a building sketched in, but it is located on the opposite side of the lot from where the 147-1 excavation was conducted. I would normally consider this a simple mapping error except a test unit was excavated in 2019 around the mapped building and foundation stones were found. Unfortunately, time did not allow for this new find to be further explored last season, so it remains a mystery, yet it adds an interesting element to the ongoing research.

While the exact function of the building is currently unknown, it is noteworthy to consider the local narratives and biography of one of Smith's daughters describing her childhood Nauvoo home fitting the site's location (Norman 1914). However, the historical and archaeological evidence indicates this building may not have functioned as a home for a family. Further archaeological research may point to a clearer purpose. While the history and archaeology at the site is puzzling, the broader church history is well-documented and will be briefly explained for further context.

CHAPTER 2

History of Nauvoo

This chapter summarizes the different groups and histories that passed through Nauvoo. The focus remains with the Mormons, but it is important to note the different groups involved with the same landscape to capture the site formation and behaviors that could be associated with the material culture. This chapter also outlines the history of Samuel Smith since he is associated with the site in 1842. After knowing the short time that Smith was associated at N147-1, understanding the activities and behaviors in the surrounding neighborhood and site history is also key to outlining a site formation.

2.1 Native Americans

American Indian tribes inhabited the Nauvoo area for at least ten thousand years. The earliest group recognized in the region after European contact were the Winnebago people. More recently, members of the Sauk and Fox tribes inhabited the area (Whittaker 2008). While the Sauk and Fox were separate tribes, they often allied in warfare and intermarried (Temple 1958). When the French came in the 18th century, this put strain on the tribes' dominance in the area. These two tribes often allied with the French when warring with neighboring tribes, but also warred against the French if their villages or their allies were threatened. This complex relationship between the French and Sauk and Fox tribes continued well into the time of the American Revolution period that added the Americans and British as other players in these land struggles (Temple 1958). After the French and Indian War, the British took claim to the land east of the Mississippi River and Indian lives in that area changed forever. In a treaty signed in 1804, the Sauk and Fox tribes were removed from their ancestral lands and moved west of the Mississippi River to make room for the potential incoming settlers. This treaty stated that the Indians were still allowed to hunt in the forested areas, but only until the other settlers came and purchased the land. The tribes in Western Illinois may not have realized this treaty meant they had to leave the land they called their home

for good (Temple 1958).

Although the Sauk and Fox tribes had lost their land to the U.S., the federal government set up trading posts that would provide trading options for goods the tribes might need. In 1805, one such trading post was set up in the area which is now modern-day Nauvoo. This was rather short-lived as there were some management issues. A retired U.S. Army Captain, James White, heard of the failing trading post, purchased the property, and moved to the area in 1824 (Beautiful Nauvoo, 2019).

2.2 United States Contextual History

After the Revolutionary War, the people of the newly established nation wrestled with questions of collective identity (Kirkham 2018), a movement known as the Awakening (Mathisen 2006). In efforts to establish their identity, American people underwent a change in individual characteristics valued in the society. These values consisted of “self-discipline, such as thrift, industry, sobriety, punctuality, and piety” (Winn 1989:42). Americans sought to set themselves apart from the other European nations. Part of this cultural transformation involved articulating the role religion would play in the new country and defining what it meant to be American (Nye 1974, Mathisen 2006).

This freedom created a revivalist movement that was not exclusive to Protestant churches in America, but rather occurred in multiple congregations across the country including Baptists, Methodists, Presbyterians, Lutherans, and several others. Revivalist movements are characterized by a rise of enthusiasm in religion and new spiritual ideals (Kirkham 2018). The religious revival era, known as the Second Great Awakening, took place due to several growing concerns throughout the country. These issues caused many to try to find peace between the church doctrines and the politics of the country that cause many to break away and form new sects or new churches (Nye 1978).

Not only did people find enthusiasm in joining a church, but they were convinced that everyone else needed to feel the same way about religion. Those that did not share their religious zeal were seen as unamerican, so it was particularly important to work to convert nonbelievers wherever

they lived. Accordingly, missionaries set out to convert people living in the American West and other parts of the world. However, some of the people living in the west had migrated westward specifically to escape the religious revival happening in the East. This missionary movement only reinforced the belief that the North American continent was meant to belong to the Euro-American people.

The term “manifest destiny” was coined in 1845, but the expansionist belief and movements west had begun long before that. Ever since the American triumph in the Revolutionary War, Americans believed that the continent “had been specially blessed and was the recipient of a special divine providence” (Joy 2003: xxvii). Several Christian faiths believed that God had set apart this land for a special purpose to establish the Kingdom of God. Americans also had a growing sense of nationalism and pride in their country, and they believed that it was their right to grow and expand throughout the North American continent. Not only did they believe it was their right to make land claims, but they also justified their land grabs as an inevitability. Either way, this fueled western expansion, whether motivated by religion or as a place of refuge.

Another theme of the 19th century society were movements to try to “reform” or correct “wrong” behaviors. These reform efforts included missionary programs to convert non-Christian Native Americans, prison programs to reshape criminals into republican citizens, and efforts to sway Irish Catholics away from Catholicism. (Winn 1989). However, many American people believed that other groups such as Irish Americans, Masons, Free Blacks, and even Mormons needed reform. Often these efforts resulted in discriminatory acts such as the abuse of prisoners, the Trail of Tears in 1836, and the Mormon Exodus in 1846. Other notable reform movements in the 19th century were the anti-slavery (abolition) and the women’s rights (suffrage) movements.

2.3 Venus and Commerce

After Captain White settled, a few other settlers followed and built some cabins along the river and called the town Venus. The land that would later become the city of Nauvoo was divided into large sections owned by these settlers. The settlers were Isaac Campbell, Isaac Waggoner,

Isaac Galland, and other members of James White's family. By 1829, Venus had grown enough to develop a need for a post office. The postmaster job was taken by George Cutler (Beautiful Nauvoo, 2019). By 1834, Venus had expanded and was surveyed and mapped by White's son, Alexander. George Cutler died and the town was renamed Commerce as a description of their hopeful future (Linn 1902). In 1837, the nation hit a financial crisis (The Panic of 1837) and the town was nearly abandoned and lay dormant until the Mormons purchased Commerce in 1839 (Flanders 1965, Beautiful Nauvoo, 2019).

2.4 Brief Mormon History

Joseph Smith Jr. was born in 1805 in Vermont and his family moved to Palmyra, New York, in 1816 (Bushman 2005). His family farmed and he received little education. While he was a teenager, there were many preachers teaching doctrinal principals from the Methodist, Presbyterian, Baptist and Quaker churches. The varying doctrines confused Joseph Smith Jr. which led to him seeking guidance and wondering which church was the correct one to join. He sought a quiet place in the woods to pray to God and ask. He then received a vision in 1820, a visit from God and Jesus Christ explaining that none of the existing churches on Earth were the correct church (Smith, 1851). Following the vision, he told his family about it and they supported him. Smith's father, Joseph Sr, had several visions concerning a journey of finding faith (Smith 1853), so this did not seem unlikely. However, Smith also told a few of the local church preachers about his vision, but they told him his visions were "of the devil, that there was no such things as visions and revelations in these days..." (JS-H: 50). He also received a lot of ridicule from multiple other people after his claim of seeing God and Christ in a vision (Fluhman 2012).

In 1827, Smith had another vision that directed him to the gold plates that would later be translated from reformed Egyptian, Chaldeck, Assyriac, and Arabic languages (Smith and Mulholland 1838) into English and become *The Book of Mormon*. Many found out he had these plates, and efforts to steal them grew violent, but the raids were always unsuccessful (The Church of Jesus Christ of Latter-day Saints 2018). The Church of Jesus Christ of Latter-day Saints was officially

organized in 1830 after the translated Book of Mormon was finished, members were baptized (included Joseph Smith), and a formal meeting was held (Smith 1853).

The years following the church's organization, resentment grew and often resulted in violence. These people who not only opposed the church, but also sought to end the Mormon church, are referred to as "anti-Mormons" (Davis 1960). They usually opposed the church because of their suspicions of the religion; they feared Mormon's rapid growth and the political power they were gaining through their unified voting (Dunn 1991). This opposition followed the Mormons through their movements through New York, Ohio, Missouri, and Illinois (D&C; Flanders 1965; Leonard 2002).

By the end of 1830, Joseph Smith instructed the widespread Saints to gather in Kirtland, Ohio. This allowed members of the church to maintain "doctrinal and organizational uniformity" (Church Educational System 1992: 90). Missionaries continued to preach and organize branches of the church throughout Missouri, Ohio, Indiana, and Illinois. While Kirtland was a great gathering location, Joseph and the other members of the church were instructed through a revelation that they were to gather in "The Land of Zion." This location was revealed to them as Independence, Missouri, in July 1831 (Canon et al. 1883). However, Kirtland remained the church's headquarters and had the largest concentration of church members between 1831 and 1837.

While church membership continued to grow rapidly, the apostate groups also grew; they dissuaded people from joining the church as well as advertised problems they saw with the new religion. Anti-Mormons formed mobs and repeatedly attacked Joseph Smith and other members of the church in Ohio. However, in July of 1833, the original settlers in Jackson County grew worried with the rapid growth of this so-called Zion. Nonmormon residents were increasingly threatened by the growing political power of the Saints. Other churches grew to dislike the Mormon church because members of their congregation would leave and join the new church (Church of Jesus Christ of Latter-day Saints 2018). The mobs created a manifesto declaring the Mormons as enemies and demanding that they must be expelled. This manifesto was drafted into a court-signed declaration banning all Mormons from Jackson County (Arrington and Bitton 1979; Smith 1905).

In 1836, the church members were able to settle in Far West and Adam-ondi-Ahman, Missouri. Joseph Smith came to Far West from Kirtland, Ohio, after experiencing conflict within his followers, some of whom left the church. He established the new headquarters for the Church of Jesus Christ of Latter-Day Saints (D&C 115:4, 7, 17; Church Educational System 1992). Yet again, opposition to the church began to form in the Daviess and Caldwell counties of Missouri. The “Gentile” neighbors feared that newly-arrived Mormons had too much voting power and might elect a state official whom much of the surrounding counties did not support. The rest of Missouri supported slavery while the Mormons officially opposed slavery. They even converted Free Blacks causing pro-slavery Missourians to fear the instigation of slave revolts (Bennett et al 2010). This led in additional conflicts that nearly resulted in a war. Governor Boggs ordered Missouri militia to attack the Mormons who violently fought back, leading to casualties on both sides. During one of the battles, a militiaman was killed which resulted in Boggs ordering the Extermination Order, evicting all Mormons from the state (Church Educational System 1992; Hamilton 2002).

Amidst all the conflict Joseph Smith and five other church leaders were arrested and held as prisoners in Independence, moved to Richmond, and eventually to Liberty Jail in Clay County for trial (Linn 1902). Smith and the other members of the church presidency were held responsible for the battles in Missouri and tried for murder, treason, burglary, arson, larceny, theft, and stealing; (Smith 1905) however, the trial was never held (Hamilton 2002). The rest of the church members in Far West left Missouri and fled to Quincy, Illinois, and surrounding areas where many of the people were willing to help those in need of shelter.

In April of 1839, Joseph and the others saw the opportunity to escape Liberty Jail while their guard was passed out from intoxication (Smith 1905) and met the rest of the church members in Quincy. Two men, named Isaac Galland and Hugh White, offered land in Commerce, Illinois to the church (Smith 1905). The church took it, and again the Saints were instructed to gather there and try one more time to have a peaceful settlement of their own (Flanders 1965). Joseph and his family moved into a small frame house on the banks of the river, one of the very few homes that were there already when the Saints arrived (Smith 1905).

2.5 The City Beautiful

The Saints gathered in Commerce and changed the name to Nauvoo, which means “beautiful habitation” in Hebrew (Dunn 1991). Joseph Smith believed that Nauvoo was the chosen location to gather the scattered church members because it was rather isolated (Smith et al. 1841). Nauvoo then began to grow and thrive, and in 1844 the population reached to about 12,000, which was larger than Chicago at the time (Arrington and Bitton 1992). Nauvoo continued to grow and expand until 1846, at which point the Mormons moved to the Salt Lake valley.

Once the church members were gathered in Nauvoo, they worked on constructing homes, a new temple and commercial and municipal buildings to get settled. Church leaders and lay members went on missions throughout the United States but Brigham Young (later to be the next prophet of the church) and his assigned mission companions went to Great Britain and established the church there. They converted many people and some of the new converts chose to travel to Nauvoo when they got the chance (Smith 1908). In 1840, Joseph Smith and John C. Bennett (another city official) drafted a charter for the city that was officially granted by the state legislature in 1840 (Flanders 1965). This charter allowed Nauvoo to have its own city government consisting of a city council, city officers, justices of the peace, and a municipal court. This was like most other contemporary city charters in Illinois such as in Quincy, Galena and Springfield (Leonard 2002). It also granted Nauvoo the right to establish a University and the Nauvoo Legion (Flanders 1965). This charter was created in hopes that it would protect church members and prevent the events in Missouri from repeating themselves (Smith 1908). The charter was unique, however, in several ways. For instance, municipal court had the “power to grant writs of habeas corpus in all cases arising under the ordinances of the City Council” (Smith 1908). This protected Joseph Smith against legal attacks but made enemies with Nauvoo’s neighbors because they accused Nauvoo of using church and state authority together to protect religious interests (Bushman 2007).

The most unique section of the Nauvoo Charter was that it granted Nauvoo the right to have a “body of independent military men” as well as a university (Smith 1908). The Nauvoo Legion

consisted of volunteer members that regularly trained to help protect the people and property of Nauvoo. One brigade of the members were cavalry and the other brigade were infantry all led by lieutenant general Joseph Smith. In Illinois, it was required by law that all eligible men be enlisted in some form of local militia (Bennett et al. 2010). The Illinois state militia consisted of all the members of the county militias; however, the Nauvoo Legion was exempt from the county brigadier general, but reported directly to the governor and was at the state's command (Bennett et al 2010). The Nauvoo Legion was not the only independent company in Illinois; there were others such as the Chicago City Guards, The Dewitt Guards, Galena City Guard, and several others (Bennett et al. 2010). Membership of the independent Nauvoo Legion was not a private militia restricting enlistment to the Mormons or town citizens and any eligible male in the county could join.

Despite the Illinois state law requiring all eligible men to enlist, the military numbers of the state still suffered. Many opted for the fines instead of serving in the forces; still, the Nauvoo Legion thrived with enthusiastic soldiers. Starting out, the legion had about 250 men and rapidly grew to over 1000 in the following months and by the end of 1842, grew to over 3000 soldiers becoming the largest military organization in the state (Bennett et al 2010). The emphasis on importance of the Nauvoo legion could be tied to the experiences many of the members endured when forced to leave Missouri. The saints in Missouri thought they had found and established Zion and were safe, but they were caught unprepared for the battle they had to fight against the other locals. This lesson better taught them how to survive on the American frontier that they applied to their new lives in Nauvoo.

In February of 1841, the Nauvoo Agricultural and Manufacturing Association was formed and incorporated. The association's purpose was to provide all the necessary items for everyday life (Smith 1908). It aimed to promote agriculture, husbandry, and manufacturing in Nauvoo creating an alliance with local entrepreneurs to establish local mills and other industries needed for local production (Leonard 2002). In April, the cornerstones of the Nauvoo temple were laid, and the construction began (Smith 1908). The church also continued to grow in numbers and in doctrine. New developments and doctrines were revealed to Joseph and the other church leaders

such as baptism for the dead, translating of the Book of Abraham, – purchased in Kirtland from an Egyptian mummy exhibit (Smith 1904; Smith 1908) – the organization of the women’s Relief Society, temple endowments, and marriage sealings.

Since money was hard to come by in Nauvoo in the beginning goods were traded for other goods, items were purchased and sold by credit. Nauvoo lacked banks and any form of official banking system, so an informal checking system was in place. The Nauvoo citizens could take out loans and handle credit and other transactions by means of personal notes. Some would borrow money from the wealthier church members by putting up collateral (Leonard 2002). Obviously, this would not work when paying taxes because those would must be paid with specie coins of gold or silver. This form of currency was especially scarce in Nauvoo so “often, the debts were passed on from one person to another in the form of promissory notes, which functioned as a private form of money (Flanders 1965). At one point, the Nauvoo City Council issued Nauvoo’s own one-dollar notes for exchange of goods, but they were recalled after a short time.

Despite the success of both the religion and the town, many members chose to leave the church and attempt to reform it because they disagreed with many of Smith’s actions (such as polygamy). They were also anxious about the Nauvoo Charter and the rapid growth of the politics, economics and religion giving the Mormons too much autonomous power (Church Educational System 1992). Some of these former members started their own newspaper called “The Expositor” attempting to call out Smith on polygamy and hypocrisy and stir up tensions among other non-Mormons (Law 1844). Only one issue of the paper was published because Joseph Smith ordered its immediate destruction by claiming it disrupted the peace of community. The public believed that the city council overstepped their power by destroying the press (Oaks 1965). Following this event, however, the state charged Smith with rioting and for the destruction of this property (Woodruff 1844). Eventually Joseph Smith, his brother Hyrum, John Taylor, and other members were incarcerated in the Carthage Jail (Figure 2.1) on charges of rioting and treason after Smith declared martial law in Nauvoo. A group of anti-Mormons stormed the jail in 1844, killing Joseph and Hyrum and injuring the others (Smith 1902).



Figure 2.1: Carthage Jail where the martyrdom took place. By Nyttend - Own work, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=49350090>

Persecution of Mormons in Nauvoo did not end after Joseph's death. The state residents outside of Nauvoo feared the city's political influence. Nauvoo was one of the largest cities in Illinois, making the surrounding non-Mormon residents a minority. During Smith's life in Nauvoo, these outsiders challenged his leadership and viewed it as a "threat to American individualism and democracy" (Leonard 2002: 304). Governor Ford of Illinois did his best to settle the unrest between the church members and the anti-Mormons. He went to Nauvoo and asked that the Mormon citizens pledge to not seek revenge, but the residents feared that the surrounding counties would plan to attack Nauvoo. The outcome was that Nauvoo residents were granted permission to defend themselves. On the other hand, non-Mormon community members feared that Nauvoo would retaliate and attempted to convince Ford to allow them to push the Mormons out of Nauvoo. Over some time, the tensions eased both among the Nauvoo citizens and those in the surrounding towns and counties.

Efforts were also made to find Joseph and Hyrum's killers. Several were charged and tried and testimonies on the case lasted about a week. The jury accepted all the defense arguments of the accused and acquitted the six men tried for the murder of Joseph Smith. A second trial was scheduled

for the murder of Hyrum Smith; however, the prosecutors never showed. Meanwhile, The Church of Jesus Christ of Latter-Day Saints faced some opposition when assigning the church a new leader. Some believed that God assigned the new leader as Brigham Young, while Joseph Smith's other brother, William, believed that leadership should remain in the Joseph Smith bloodline.

Despite all the unrest and confusion about the church leadership, the LDS members that remained followers of Brigham Young did not want to leave Nauvoo until the temple was finished and they could receive their temple ordinances. During the wait, church members from surrounding areas were forced to leave their homes and move to Nauvoo (Leonard 2002). Mobs grew and burned homes, and Brigham Young and other church leaders worked on finding a location in the West to move the Saints. In 1845, an agreement between the church and the state of Illinois was signed for the removal of the Mormon church members. They agreed to depart in the spring of 1846 when weather provided such travel and the governor's committee urged the anti-Mormons to be patient and not push the Nauvoo residents out during the winter (Leonard 2002).

In October 1845, the Nauvoo temple was still not completely finished, but enough was done that Brigham Young dedicated it, held a conference in it for the members and discussed how to go about planning for the exodus and the suggested preparations to make before the spring. Temple work could begin, and those church members abroad changed their plans from moving to Nauvoo to heading there to moving westward. While the church members knew that moving the church headquarters once again was their only option, it saddened the church members to leave their hard work behind only to start over outside the country at that time in the land west (Leonard 2002).

While the followers of Brigham Young crossed the plains to the Great Salt Lake Valley, others unwilling to cross the plains (such as Joseph's first wife, Emma Smith) remained in Nauvoo and, in 1860, established the Reorganized Church of Jesus Christ of Latter-Day Saints headquarters in Independence, Missouri (Allen and Leonard 1976). As soon as Joseph III was of age, he became the prophet president of this church. This church is now known as the Community of Christ church.

2.6 Samuel Harrison Smith

Samuel Harrison Smith is connected to the N147-1 site in Nauvoo by historical records. An analysis of these records narrowed in on his activities in Nauvoo. Smith was born March 13, 1808 to Lucy Mack Smith and Joseph Smith Sr, brother to Joseph Smith Jr., the first prophet and organizer of the Church of Jesus Christ of Latter-day Saints (Smith 1908). He always supported Joseph during the early organization of the church. He even served Joseph as a scribe in the translation of the gold plates into *The Book of Mormon* and was one of the few witnesses of the plates (Smith 1958). He was also the third member to get baptized as a member of the Church in 1829 (Smith 1902). In the following years, Samuel served the church as the first missionary and helped convert many members (Jarman 1961; Walker 2005).

From 1833 to 1837, Samuel spent most of his time in Kirtland, Ohio, where the new temple was built and the church headquarters were located at the time. He worked on farms with his father and did other odd jobs for people throughout the community. He was also highly involved with developing the church and worked in a shop selling church books (Jarman 1961). In 1834, he was ordained a member of the High Council of Kirtland (Jenson 1901). Later in 1834, he married Mary Bailey and they eventually had four children. In 1837, Samuel and his family moved to Far West, Missouri with many other of the Saints after some persecution in Kirtland. These attacks occurred while Samuel was away on some church business in Missouri with his wife and children being among the victims. The family was tossed out of their house by a mob while their house was burned down. Since there was no home left, they went straight to Far West and settled there (Jarman 1961).

Their residence in Far West was short-lived as the church members were driven out of Missouri in 1839. Smith and his family went to Quincy, Illinois, where they lived temporarily in a small house. Fortunately, he and his brother (Don Carlos Smith) were offered some farming land to rent in Macombe, Illinois (Jenson 1901). They moved their families there for the rest of the season. Records are unclear about how long Samuel and his family were in Macombe, but they at least

moved to Nauvoo by 1840 before his father died in September (Smith 1958).

In 1841, Samuel was elected one of Nauvoo's aldermen and a lieutenant-general of the Nauvoo Legion (Times and Seasons 1841; Smith 1908). As one of his duties as an alderman, he served on the Committee of Improvement that helped build and repair roads throughout Nauvoo (Times and Seasons 1841). He was also involved with a few other civic and political duties. He had some ecclesiastical duties as well including being a counselor in a bishopric, and later serving as the bishop of one of the Nauvoo wards (Jarman 1961).

Samuel's wife, Mary Bailey, died in January 1841 shortly after giving birth to her and Samuel's fourth child (Jarman 1961). Soon after Mary's death, Samuel was called to another mission to the surrounding counties of Nauvoo. While on his mission he met and married Levira Clark in May 1841 (Times and Seasons 1841; Jenson 1901). He and his family moved to Nauvoo around November of 1841 where he worked for Joseph until fall of 1842 (Jenson 1901). In March 1842, Samuel and his brothers (Joseph and Hyrum), along with many other Nauvoo citizens were facing serious economic problems as they were not able to sell their property in Missouri (Jarman 1961). When Samuel finished working for Joseph, he moved his family to Plymouth, Illinois, about twelve miles from Nauvoo. He stayed with his brother, William at his tavern (Jenson 1901). Samuel finally bought his own farm in 1843 where he worked on clearing and cultivating his land until 1844 (Jenson 1901).

On June 25, 1844, Samuel learned about his brothers, Joseph and Hyrum, being imprisoned in Carthage and he had received news of their danger. He rushed to Carthage to try to assist them and was met by members of the mob that were involved in the killing of his brothers. He was not able to pass through until after his brothers died, but when he did, he felt pain in his side. Since he did not arrive in Carthage until after his brothers had died, he carted their bodies back to Nauvoo for a funeral. The pain in his side grew worse and he fell sick. Lucy Mack believes that the injury may have been caused by fatigue after the chase and the shock and sadness of his brothers' deaths, and he died July 30, 1844 (Jenson 1901; Nauvoo Neighbor 1844; Smith 1853).

Despite the deaths of the Smiths, the Nauvoo citizens still faced persecution from people in

surrounding communities, and many wanted the Mormons to leave the state. While the state tried to find the best solution to the unrest, the Mormons struggled to agree on church leadership. Most supported Brigham Young while others believed leadership should remain in the Smith family. The state concluded that the church members should leave the state and approximately 11,000 followers of Brigham Young traveled west while about 1,000 others stayed behind. The church members that stayed behind scattered to the surrounding areas largely abandoning Nauvoo and leaving room for other immigrants to fill the empty town (Allen and Leonard 1976; Leonard 2002; Linn 1902).

2.7 Icarian Utopia

Following the Mormon exodus, the next major group that inhabited Nauvoo was a French socialist group known as the Icarians led by Etienne Cabet. The Icarians supported a social movement that was believed to create a perfect utopia. Their beliefs created tensions for them in France, forcing them to find somewhere to experiment with this socialist community (Gauthier 1992). The Icarian people moved around to several locations like Dallas and New Orleans before finally settling in Nauvoo in 1849. They valued the town's location for many of the same reasons the Mormons did: it was in an area that allowed them to live in peace, gave them the freedom to express their beliefs, and provided a fresh start that allowed the community to grow. The town was already established, making it easy for about 250 Icarians to simply move in (Angle 1965). Overall, the town was a success for the first couple years. The residents attempted to be completely self-reliant, but funds were still low, and it was difficult to feed everyone, especially as more people trickled into the Nauvoo Icarian settlement from others across the country. Many other struggles were because most of the Icarians only spoke French, communication challenges arose in their business and legal interactions with the town's other residents (Gauthier 1992).

Cabet became fascinated with the temple that the Mormons had built. Unfortunately, it was burned down a couple of years after most of the Mormons left for the Salt Lake valley. Despite the financial hardships of Icarian Nauvoo, Cabet purchased the temple lot with aspirations to rebuild

the temple and turn it into an assembly and dining hall (Lee 2009). However, a tornado hit Nauvoo in 1850 destroying what was left of the temple ruins which squashed Cabet's plans for the new dining hall. Instead, it turned into a stone quarry the Nauvoo residents used to build other buildings they needed. The focus then turned to building a school and a refectory. Some of the additional constructed buildings contributed to establishing an industry for a flour mill, a sawmill, and a distillery (Gauthier 1992).

In 1851, the town fell into disorder and the leaders lost all trust and control of the people. Much of the revolt stemmed from the financial issues causing food shortages and lodging disagreements. Many people left Nauvoo and others complained about their children being forced to live in the housing provided by the school. Town citizens tried to throw Cabet out of Nauvoo. In 1852, Cabet went back to France to defend himself against accusations of fraud and embezzlement. Cabet was found guilty, was banned from the country, and returned to Nauvoo where the city was in an uproar. Cabet tried to take back control by enforcing Icarian ideals by expelling rule breakers, outlawing personal material, and forbidding alcohol and tobacco consumption. The new restrictions only enraged the Icarian people more, putting them at the brink of violence. Eventually the Icarians divided themselves into two groups: the larger group did not support Cabet and claimed he was power hungry, while a minority supported Cabet (Lee 2009). The minority ended up losing the fight for control and were ousted along with Cabet in 1856 and about 120 out of about 500 Icarians moved to Saint Louis, Missouri (Barnes 1941; Gauthier 1992).

Even after Cabet left, Icaria still struggled with money. Two different leaders, Jean Baptiste Gerard and Armel Marchand, took Cabet's place and decided to sell Nauvoo and merge with the Icarian settlement in Adams County, Iowa in 1860. Some followed and went to Iowa, but many decided to either go back to France or to settle in surrounding communities (Gauthier 1992).

2.8 A Refuge for Many

In the short period after the Mormon and the Icarian occupations, a wave of immigrants moved to Nauvoo. Most of them were Catholic or Lutheran Germans escaping the political and economic

disturbances in their home country. Other immigrants included some Swiss, Irish, and English groups. With this large influx of German immigrants, Nauvoo became one of the largest German-speaking communities in Illinois (Cuerden 2006). Even though the Icarians came in 1849, many German and Irish immigrants remained in Nauvoo throughout the 19th and 20th centuries with a total Nauvoo population averaging around 1500 (Illinois State Census 1870). These immigrants had started a grape and wine industry that still thrives today.

Today, Nauvoo is a small town with a little over 1000 residents, but in the summertime, the area is swamped with visitors and tourists wanting to see first-hand where many important LDS and Community of Christ church history events took place. Many of the Saints' original homes still stand among reconstructed and exposed foundations (Figure 2.2). Most of the buildings are open for free tours and many have original artifacts on display. The archaeological digs are free and open to the public for some volunteer work. Public archaeology work has been very successful in getting tourists more excited about the town's history and promoting archaeology.



Figure 2.2: Image of the Joseph Smith Homestead behind the Smith Family Cemetery, Nauvoo 2018. Photo by author.

CHAPTER 3

Project Overview and Methods

3.1 History of Block 147

When Nauvoo was first plotted out by Joseph Smith, it was organized into four-acre blocks each assigned a block number. As property was bought, sold, and traded among the landowners and the church members, the blocks were divided into one-acre lots and assigned a number one through four. This system was relatively common and was easy for surveyors and others to quickly find the land they needed. For archaeological projects in Nauvoo, the project naming system has remained consistent with this numbering system, thus the Samuel Smith site of block 147 lot 1 (147-1) is consistent with all other historical documents dealing with this site and others.

Before the Mormons came, the 30 acres of land that would be developed into block 147 was owned by Hugh White, a relative of Captain James White. Isaac Galland later bought this land just before the Mormons came and then sold it to Joseph Smith Jr. in 1839 (Miller 1962). Smith would then either sell the land to the church members coming in or gift it to them. Often, Smith would give land to friends and family members “under the table” either out of charity or in return of some work they have done for him (Flanders 1965). Considering 147-1 was never deeded to Samuel Smith but he was taxed for the property, I assume this was the case between Samuel and his brother Joseph as it is believed that Samuel did some work for Joseph (Jenson 1901; Deed Records 1841; Miller 1962; Tax Records 1842). According to tax records, Samuel Smith did own land in Nauvoo, but these and other records are unclear about where exactly he lived.

In 1842, Samuel moved to Plymouth with his family. Historical records are unclear about whether 147-1 remained Samuel’s property or if it was passed to someone else. His biography says that he did return to Nauvoo regularly and was there for most of the summer of 1843 working for Joseph (Jenson 1901). The records are ambiguous about where he lived and stayed when he was in Nauvoo, whether he stayed on his own properties in Nauvoo, or with a friend or family member. In 1844, he died in Nauvoo a month after his brothers were killed in Carthage.

After 11,000 Saints left on their journey to Salt Lake, block 147 was virtually abandoned. The only exception was Emma Smith and the Mansion House on 147-3. Much of the land that belonged to Joseph was bought with credit and he left no will, leaving many complications for Emma and Hancock County when trying to decide what to do with the land (Shireman 2005). Joseph Smith's creditors required compensation; thus his land was auctioned, including 147-1. While several creditors purchased their land back, many people lost their land even though they were under the impression they had owned it (Shireman 2005). The only land that was exempt from the auctions were lands containing the Mansion House, Nauvoo House, the Homestead, and the Smith farm. The Mansion House and the Nauvoo House were hotels and lodging. The Homestead and the Smith farm were the first properties Joseph purchased for his family's living quarters. Emma purchased these properties from Charlie Bidamon, her new husband's brother. However, this land was later put up for auction anyway. Emma ended up buying back these properties from a widow's dower money she received from the properties before (Shireman 2005).

Emma and Lewis Bidamon's purchases included block 147. With the purchase of lot 147-1 in the 1860s, they owned the entire Mansion House block (Deed Records). Before she died, Emma wrote a will deeding over all her and Bidamon's properties to each of her sons. In 1870, she gave 147-1 to David H. Smith priced at 300 dollars. After David died, his wife and son sold the property to Roy and Ruby Jamison for 400 dollars in 1921. The Reorganized Church of Jesus Christ of Latter-Day Saints (presently known as the Community of Christ church) eventually purchased this land and many other blocks that today make up the Joseph Smith Historic Sites (Shireman 2005).

3.2 Excavation Methods of Site 147-1

As mentioned before, Bob Smith established a site grid on the block with each excavation unit on the site being ten feet by ten feet square. Each unit was excavated in arbitrary two-inch levels. The lot was divided up into potential unit numbers before excavation, meaning that each unit number could range anywhere from number one to 300. Bill Keach, Ben Pykles, and John McBride conducted ground penetrating radar in 2012. Test pits were dug in 2013 and 2014. Ex-

cavation began in 2015. The bulk of the excavation took place between units 189 and 280 with the foundation of the building being in units 233, 253, 232 and 252 (Figure 3.1). These units were the focus of the excavations where each unit was excavated from level one down to level twenty. Each level has its own artifact bag that is labeled that then goes into the queue for cleaning. Volunteers at the site clean the artifacts in each bag, usually at the dig site, dry the artifacts and label each artifact with the provenience using sharpie (Figure 3.2).

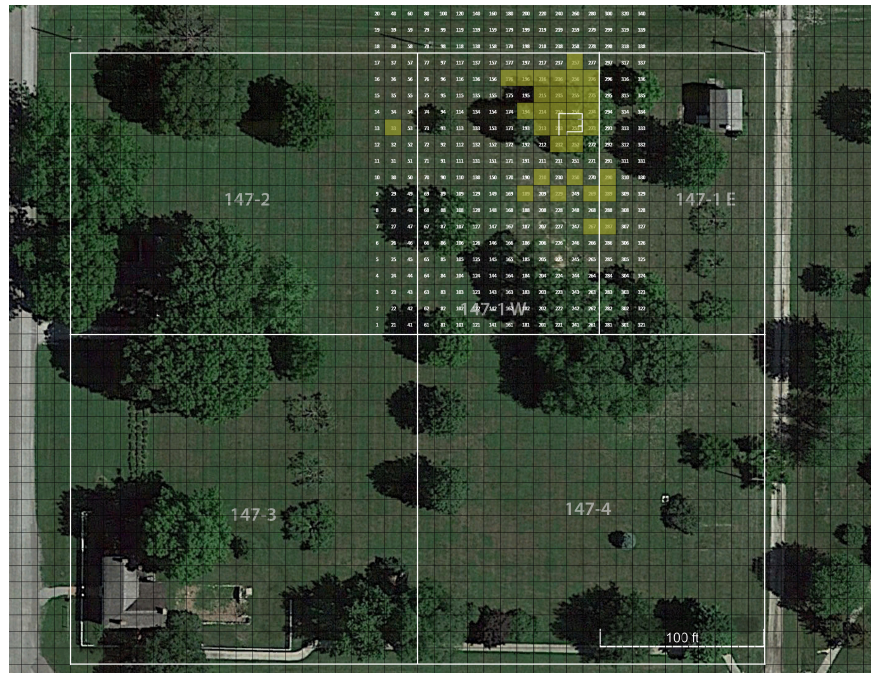




Figure 3.2: Artifact Washing and Recording Process. Photo by author

The artifacts are then put into a field catalog Excel file with provenience and a brief identification record. Once cleaned and recorded, the artifacts are placed into their respective Ziploc bags sorted by provenience and then sent to the archaeology lab. The archaeology lab is in Joseph Smith's Red Brick Store that was excavated and reconstructed in the 1970s. The basement is the archaeology lab and stores all the artifacts found in the Joseph Smith Historic Sites in Nauvoo, owned by the Community of Christ church. Once the artifacts reach the lab, the ceramics and glass artifacts are removed from the bags and placed onto the assembly tables (Figure 3.3).



Figure 3.3: Ceramic Assembly Table Sorted by Design Type. Photo by author.

The rest of the artifacts are kept in their bags, put in a large Rubbermaid bin, and stored on

the shelves in the basement. In the past, a few of the artifacts that were reassembled were put on display in the reconstructed buildings to have some original pieces for visitors to see. Many are on display in the archaeology lab where tourists can go see all the artifacts coming from the field projects and see them being pieced together.

Although excavations have been going on in Nauvoo since the 1970s or so, most of the artifacts found at the various sites owned by the RLDS/Community of Christ church have yet to be analyzed. The Nauvoo project directors are focused on generating display material for a reconstructed site to come. Given this focus, there is emphasis on piecing the ceramic vessels back together before – or instead of – some form of artifact analysis. Very little is known about this site compared to many of the other sites in Nauvoo given the fragmented historical documents. Analysis of the ceramics and animal bones would help interpret the function of site 147-1 and the foodways of the surrounding community.

This site alone has enough data to fulfill several theses and dissertations considering there are still thousands of other artifacts including glass and metal objects that I am not analyzing as there is not enough time to analyze every artifact found in the two years I have to complete the MA program. I selected the bones and ceramics excavated between years 2013 and 2018 for this project because faunal analysis is my specific interest I wanted to develop, while the ceramics are of particular interest of the project leaders and landowners, and they both play into the foodways narratives. While the glass would significantly help with dating the site and with the foodway emphasis of my thesis, it was simply not feasible to analyze another artifact class in the given amount of time of my thesis project. With the faunal remains, I gathered data such as Minimum Number of Individuals (MNI), Number of Identified Specimens (NISP) and biomass estimates to provide foundational data to explore foodways in Nauvoo. For the ceramics, I conducted Minimum Vessel Counts (MVC) to get an idea of the number of various vessels that will also contribute to food consumption patterns and practices. The combined data will help with understanding the activities that took place during the occupation of the site.

The extensive history of the site is important because it shows the complicated history of Nau-

voo. While there were several groups that came and went through parts of Nauvoo, site N147-1 is in a separate part of the town that was consistently owned and occupied by people associated with the LDS church or its affiliate organizations. Joseph Smith's wife, Emma, remained in Nauvoo until her death. She remarried after Joseph's death to Lewis Bidamon and all the property Joseph owned in Nauvoo went to her and Bidamon, including this site that was once Samuel Smith's. The key point for this analysis is that this particular lot was consistently owned by members of the Mormon Church or the RLDS church into the twentieth century.

3.3 Ceramic Analysis Methods

The analyzed ceramic assemblage of site N147-1 consisted of 6078 sherds. This assemblage provided the opportunity to study not only the foodways of a frontier site but also the values and behaviors of a Mormon diaspora community. Before I moved the ceramics from Nauvoo, each bag was assigned a bag number and then accounted for in a spreadsheet. Because the ceramics had been previously used for vessel reconstruction, they were already sorted by design type. Each design was bagged together and assigned a bag number and counted. This was mainly for the loan records and knowing what artifacts I am borrowing and what artifacts need to return.

After having them delivered to the lab at the University of Idaho, I sorted through each bag that was already separated by design type such as red transfer print or flow blue. I went through them again more carefully to remove the pieces that were misidentified and put them into the correct bag. Then, I took one bag with all the ceramic sherds with the same decoration type and then sorted those by provenience. Once in those piles, they were further sorted into the vessel forms such as plates, bowls cups, or simply hollowware or flatware if that was identifiable. Then they were further sorted into portions of the vessel such as the rim, body, base, and so on. Then, they were put into smaller bags according to these identifiers and then given a unique ID number based off of the bag number and the number of smaller bags within it. For example, I took bag 1515 (which is all blue transfer print decoration) I sorted it out all by the criteria above, so I had one pile of two ceramic sherds from square 254 level 3 that were all rim sherds. This was assigned the ID

number of 1515/159 because there were 158 smaller bags that preceded this one from the same big bag of 1515. This ID number was written on the top left-hand side of the bag.

These details were recorded in a Microsoft Access database where several categories of characteristics were created to fit the assemblage. First the ID number was entered along with the site number, unit number, and level number. Then I recorded a percentage possible of the vessel represented by the sherd. Next, a vessel type was given to the sherds if possible. These object names included categories such as flatware, hollowware, bowl, plate, etc. An item was labeled as flatware if it could be identified as such but could not provide rim or base diameter measurements to identify a specific type of flatware. Similar methods were applied to identifying a hollowware versus something more specific such as bowl, mixing bowl, mug, teacup, etc. Then an object category was assigned to the items, including options such as food consumption for tablewares and food storage for utilitarian vessels. The ware type was then identified as whiteware, pearlware, ironstone, stoneware, redware, etc. Then the decoration type was identified and recorded including categories such as transfer print, painted, slip decoration, rim decoration, etc. The color of the decorations were recorded in the additional comments section. The portion of the piece representing a vessel was also recorded such as rim, base, body, brim, etc. Also included in the comments, if possible were the rim and base measurements, a decoration style (romantic, British, Chinese, etc.) and other pieces of information that might help with analysis and record keeping. Dates were recorded, if possible, by consulting appropriate reference sources for decorations or ceramic manufacturing. The sources were cited in the references section. Lastly, if present, maker's marks and registry marks were identified and recorded along with a description of the mark and dates. These identifications were made by consulting a variety of standard books, articles, and identification guides (Mansberger 1994; Miller 1991; Miller 2013; Samford 1997; Samford 2013; Walthall 2015).

The information entered into the database was analyzed to gather more information such as a Minimum Vessel Count (MVC) and the association with the other ceramics and even the animal bones as it could be indicative of behavior patterns (such as valued patterns and dining practices)

and a time sequence of events (Voss and Allen 2010). MVCs were recorded by physically sorting the ceramic sherds of similar design using and comparing the rims. The MVC information was recorded on hard copies of MVC forms. Sources were also consulted to sort other portions of the vessel; however, since rim decoration and center design could vary, often the center designs were not counted as separate vessels. Since this is a subjective measure, minimum vessel counts could vary between analysts. An MVC is also a conservative analytical tool so the counts might appear lower than actual vessels used. Date ranges for the ceramics were determined by using Stelle's (2001) guide for ceramics in central Illinois in conjunction with Samford's (1997) ceramic dating tables. It is important to note that using Illinois dates are far more relevant than the dates given in Samford's article due to transportation and trend lags from the East Coast to the Midwest frontier.

Due to large quantity of both ceramics and bones and the limited analysis time, not every specimen could be included in this research. My data collection cut-off date was April 1, 2020 so I could complete my thesis in a timely manner. I attempted to gather as much data as I could to analyze all the different possibilities. Priority was given to the decorated tablewares since those are of particular interest of the project leaders. Most of the diagnostic utilitarian wares were analyzed. The undecorated whitewares were prioritized differently since there were several thousand of those alone. There were five gallon-sized bags of small sherds, so I decided to collect a sample of those and catalog one of those gallon-sized bags. Other ceramics left unanalyzed were non-diagnostic redware and yellowware sherds along with a few other stoneware and redware vessels. Overall, approximately 80% of the ceramics recovered are included in this analysis.

3.4 Faunal Analysis Methods

The faunal remains from 147-1 were cataloged and recorded just the same as the ceramics and assigned an individual bag number. The only difference was that the bones had not been removed from their original field artifact bags and were organized by provenience. There was no further organization or presorting done after reaching the University of Idaho besides being ordered in numerical order by bag identification number. Each of the bags of bones was emptied onto a tray

and each bone identified by animal and by species if possible. Further cataloging identified what element it was such as femur or rib, and then if it was modified in any way by humans (butchered) or by animals (through gnawing by rodents or carnivores). The sorted bones were put into smaller bags and cataloged into a Microsoft Access database. The provenience, animal, species, bone element, portion, size, weight, quantity, modification, butchering method, burning, and meat cuts, age at death, and epiphyseal fusion info was all put into the data base for each bone if identifiable.

Skeletal identifications were made using the University of Idaho's comparative osteological collections. When necessary, osteological manuals were also consulted (Gilbert 1990, Gilbert et. al. 1985, Cohen and Serjeantson 1996, Schmid 1972). The analysis process included identifying various characteristics of the bones and entering the identified characteristics into a Microsoft Access database with categories of the physical characteristics. Each bone was identified to animal class (e.g. mammal, bird, fish, etc.), genus and species (when possible), the particular element (e.g. tibia, femur, humerus), side (left or right), the portion of the element present (complete, 3/4 complete, 1/2 complete, etc.), approximate age of animal at death, the number of fragments and their weight. As appropriate, epiphyseal fusion and tooth eruption were also recorded as well as any post-mortem modification of the bones such as burning, butchery, rodent or carnivore gnawing. More importantly for this project, retail meat cuts were identified when possible. In some cases, the cuts can correlate to economic status and/or cultural preferences.

The animal bones are usually separated into broader groups such as large mammals, medium mammals, small mammals, birds, fish, shells and unidentifiable. The large mammals include cow, horse, elk, moose, and others of that size or bigger. The medium mammals include pig, sheep, goat, deer, and others of about that size. Small mammals include rodent, raccoon, cat, dog, possum, and others of about that size. Finally, there was an unidentifiable category, meaning that I could not identify the size of the animal bone because the fragment was either too small or were broken pieces that had no identifiers.

Identifying the bone elements (meaning the femur, humerus, ulna and so on) are important because it not only tells you where the meat came from on the animal's body but can also tell the

value of the meat. Usually the meat in the lower to midsection is the best quality, and the head and the feet are generally seen as lower quality meats. Further information is tied to these clues such as socioeconomic status or social standing. The more high-quality cuts found, the more expensive the meat they are and the likelier it is that it was a wealthier individual or group at one point. Of course, this is not always the case, but it is still suggestive of economic status. I emphasize that the head and feet elements do not always indicate impoverished individuals or groups; it could also mean that there was some cultural preference for these cuts, or there was on-site butchering and those low-quality cuts were being thrown out, or possibly used to boil in soups or broth.

Meat quality can also be determined by the age of the animal at the time of death. This is usually determined by the epiphyseal fusion of the bones. For example, a metatarsal bone (or a lower-rear shin bone in many four-legged animals) has epiphyses on the distal (or lower) end of the bone and the proximal (or upper) end of the bone. In adulthood, the long bones (e.g. legs) are a single bone, but those bones start out as separate bones. This allows long bones to continue to lengthen as the animal grows from birth to adult. The epiphyses on either end of a long bone fuse at varying times in the animal's development and, therefore, an age range can be determined. For most animals, there is a prime time for them to be butchered to get the best quality meat, which is usually shortly before the animals are fully grown. This determination is based on a combination of factors. The meat is somewhat more tender in younger animals, and it becomes less cost efficient to keep animals alive after they have reached full adulthood.

Once these details were recorded, further analysis was done to determine the MNI and the biomass (potential amount of meat that was on the bones) to give insight into the behavior and activities of the former residents of the site. MNI was determined by identifying the most prevalent bone from the species that could be assigned a right or left side of the body and assuming there is a minimum of the number of individuals from the determined right or left sided bone. For example, the most prevalent bone for the pigs that could be assigned as right or left were the mandibles. Sixteen mandibles were the left, while 18 mandibles were the right. Since there were 18 right mandibles, there must at least be that many pigs represented in the assemblage. I also considered

the completeness of the mandibles, the teeth, the portion of the mandible, and the supposed age of the pig in calculating MNIs.

Biomass is also known as the estimation of the meat weight that would have been available for consumption based on the elements identified. This was calculated by using the formula $Y = aX^b$, where Y=the estimated biomass, X=the specimen weight of a specific taxon, a=the Y-intercept of the linear regression line, and b=the slope of the regression line (Reitz and Wing 1999). Fortunately, Reitz and Wing (2008) have figured the Y-intercept and the slopes for the different animal groups such as mammals, fish, reptiles, and birds. Calculating biomass is helpful when determining how much meat was represented by the bones that were present.

CHAPTER 4

Data Summary

The purpose of studying the ceramics was to better understand the daily life of the Mormons at Nauvoo and answer questions about behaviors at the site 147-1. Analysis of the ceramics and the animal bones have helped fill in some of the blanks left unclear from historical records. While the animal bones usually, exhibit the daily food choices of a community, they fail at providing dates for occupation. Thus, the ceramics were also studied to provide some dating evidence for the excavations and another perspective on Nauvoo food habits and consumption. As mentioned earlier, I did not study other classes of artifacts, such as the glass and the metal artifacts, which could have provided more fine-grained dating of the use of the feature. Also given the quantity of the faunal and ceramic specimens, there was also not enough time to catalog every piece. Priority of what to catalog was based on diagnostic material and the pig skulls for the faunal, and vessel variety for the ceramics.

4.1 Ceramic Data

Ceramics consisted of an assemblage of 6078 sherds representing an MVC of 167. Most, but not all, of the ceramics were recovered within the footprint of the small stone foundation. Appendix B illustrates the artifact dispersal in several figures and tables.

The two main types of ceramics found at the site are tablewares and utilitarian vessels. As the name suggests, tablewares are vessels that are used for setting the table, serving food, and consuming food. Utilitarian vessels aid in the food-making process including storing, cooking, and mixing food. Tablewares were the most abundant type of ceramic with a sherd count of 5645 and an MVC of 138 (Table 4.1). Utilitarian vessels are represented with a sherd count of 428 and a vessel count of 29, keeping in mind that I did not analyze all the redwares and yellowwares (Table 4.2).

Decoration	Sherd Count	%Total	MVC
Sponged	193	3	12
Transfer Print	1939	32	79
Hand-Painted	265	4	6
Flow Blue	291	5	12
Decalomania	38	1	3
Annular/Slip	207	3	7
Annular/Painted	37	1	4
Feather/Shell Edge	138	2	9
Undecorated	2132	35	–
Unknown	405	7	6
Total	3513	100	138

Table 4.1: Artifact count by type of decorated tablewares

Type	Sherd Count	%Total	MVC
Redware	125	2	8
Yellowware	148	2.4	5
Stoneware	155	2.6	16
Total	428	100	29

Table 4.2: Artifact count by type of utilitarian ceramics

It is important to note that the sherd count of the utilitarian ceramics is significantly lower because they are generally more durable and were not as fragmented as the tablewares. On average, the utilitarian ceramics were broken into approximately ten sherds while the tablewares were generally broken into about 25 sherds based on division of the total sherds by the MVC. Many tablewares were so fragmented that some vessels may have been broken into 40 or more pieces.

Transfer Print Transfer print was a type of decorated ceramic that first appeared in England in the mid-18th century. This decoration type was an applied design allowing for complex and detailed pictures to be placed on ceramics. They became popular in America soon after the War of 1812 with a ceramic price drop (Samford 1997). Particular designs and border patterns had varying popularity periods throughout the country and thus helps in estimating more precise dates for archaeological sites (Miller 1991, Samford 1997).

A different type of transfer decoration, called Flow Blue, became popular in the U.S. around

the 1840s with a second surge of popularity around the 1890s, which creates a wide production range, therefore resulting in a late mean production date (Table 4.3).

Item	MVC	Popularity	Mean Date
Black	4	1830-1850	1840
Black/Floral	2	1834-1850	1842
Flow Blue	6	1841-1908	1875
Flow Blue/Floral	3	1870-1979	1875
Flow Blue/Romantic	2	1830-1920	1875
Flow Blue/Chinoiserie	1	1828-1867	1848
Red	22	1829-1850	1840
Purple	1	1829-1860	1845
Purple/Floral	6	1834-1860	1847
Purple/Linear	1	1829-1860	1845
Purple/Geometric	1	1829-1860	1845
Purple/Romantic	1	1829-1860	1845
Dark Blue	4	1820-1860	1845
Light Blue	8	1826-1831	1829
Dark Blue/Chinoiserie	2	1820-1860	1840
Dark Blue/Geometric	3	1830-1860	1840
Light Blue/Geometric	3	1826-1831	1829
Dark Blue/Linear	1	1820-1860	1840
Dark Blue/Floral	1	1834-1860	1847
Light Blue/Floral	1	1834-1839	1837
Dark Blue/Romantic	1	1820-1860	1840
Green	1	1829-1850	1840
Green/Floral	3	1834-1850	1842
Green/Romantic	1	1829-1850	1840
Brown	5	1829-1850	1840
Brown/Classical	4	1829-1850	1840

Table 4.3: Transfer print decoration types and mean dates. Dates derived from Samford 1997 and Stelle 2001

Despite the later dates of the flown wares, the overall mean date of all the ceramics is 1844. Though the flown wares have a later mean date, it does not rule out that these ceramics may have been available in Nauvoo during the 1840s. Yet, it also does not rule out the possibility of later disposal given the historical evidence that the surrounding area was occupied up until the 1890s. The appearance of Flow Blue transfer ceramics is significant because they were generally more expensive than the other colored transfer print decorations and styles (Miller 1991).

Transfer printed ceramics were the dominant type of decorated ceramics in the assemblage both by sherd count (n=2230) and by MVC (n=91) with blue (Figure 4.2) and red transfer print (Figure 4.3) ceramics being the most common (Figure 4.1).

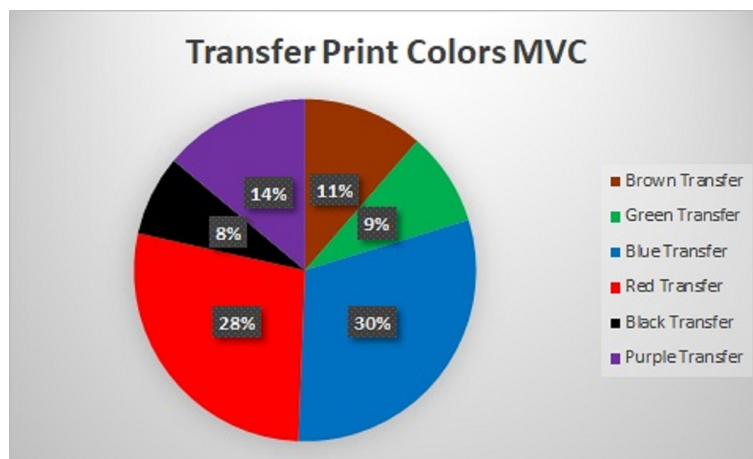


Figure 4.1: Summary of transfer print colors represented in Nauvoo MVC

The red transfer print ceramics (Figure 4.2) have a mean production date of 1840. There is a date differentiation between the dark and light blue transfer ceramics (Figure 4.3); the light blue has a mean date of 1829 while the dark blue has a mean production date of 1845 (Table 4.3). All the transfer print ceramics have an overall mean production range of 1829 to 1875. The earliest date being associated with the light blue ceramics and the latest date being associated with several flow blue transfer ceramics. This later date is likely due to the length of production and one popularity period in the 1840s and another in the 1890s (Majewski and O'Brien 1987, Samford 1997). It is more likely that the ceramics came from the earlier period except for the floral flown patterns. Regardless the average date of all the transfer printed ceramics is 1844, approximately the height of Nauvoo (Flanders 1965).



Figure 4.2: Red transfer printed tablewares



Figure 4.3: Blue transfer printed tablewares

Undecorated White Earthenwares This category deals with the undecorated earthenwares. These accounted for a majority of the analyzed ceramic sherds in the assemblage with a count of 2132. Unfortunately, figuring an MVC for these ceramics was nearly impossible due to the small size of the sherds and the lack of any distinguishable features such as rim and base diameters. Some diameters were found and could be counted toward an MVC, but the number would be inaccurate at portraying how many vessels are possibly represented in the assemblage. Because of their small size, it is very likely that many of these pieces belonged to decorated vessels but were broken from an undecorated portion of the vessel. These many complications resulted in an MVC that is of limited analytical value.

Edge Decorated Whitewares and Pearlwares The edge decoration type that is most prevalent in the assemblage is the shell edge or feather edge decorations which had a sherd count of 138 and an MVC of nine. One of the vessels was green painted over the feather incising edge decoration while all the others were blue. This is relatively unsurprising as blue was the most common color of this type of decoration during the 19th century.

The feather and shell edge decoration is also among the cheapest of the ceramics at the time apparently becoming even less expensive than the plain whitewares in the 1860s (Majewski and O'Brien 1987). There was considerable variation in this simple design during the period of manufacture. There were impressed edgings with scalloped edges that date between 1800 and 1835. Unscalloped impressed edging were more popular during 1840 and 1860 (Table 4.4). Unscalloped with no incising of the edging came later dating to 1865 to 1895 (Miller 2000).

Item	MVC	Date Range	Mean Date
Feather Edge Incised	3	1825-1891	1858
Shell Edge Incised	3	1825-1891	1858
Feather Edge Not Incised	1	1850-1897	1874
Shell Edge Not Incised	1	1850-1897	1874
Green Feather Edge	1	1795-1840	1818

Table 4.4: Feather and shell edged decorated mean dates

However, these dates are more relative to the east coast United States so they may be early for their appearances in Nauvoo's archaeological record. The green feather edge vessel (Figure 4.4) is the earliest with a popularity range between 1802 and 1832 and a mean date of 1818 with a possibility of dating to as late as 1840 (Stelle 2001).

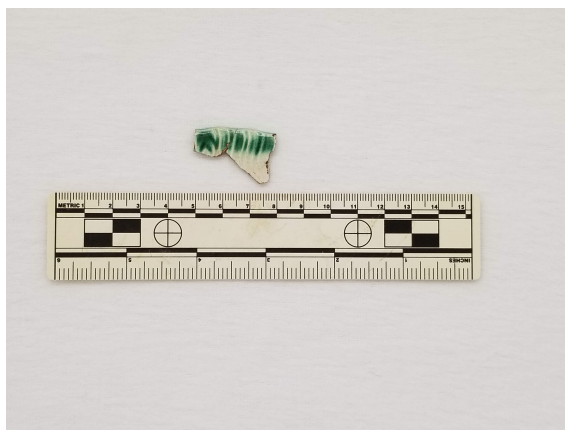


Figure 4.4: Green shell edged. Photo by author.

There are nine different vessels of both feather and shell edged decoration. The non-incised edging (Figure 4.5) dating to about 1874 to 1884 in their popularity with a possibility of dating to as late as 1897 (Stelle 2001). There are two vessels in the assemblage that fall under this category. This puts the average mean date in 1857 for these edge decorated wares.



Figure 4.5: Blue feather edged non-incised. Photo by author.

Annular Wares Factory turned slipwares are annular or banded wares which are refined earthenwares decorated with an applied slip decoration. A ‘slip’ means that the applied banding is created by using liquid clay like paint to create the decorations. Other times, vessels with a slip decoration were also dipped into liquid colored clay. These factory turned slipwares were commonly yellowwares, though there were also a handful of whitewares in this assemblage (Figure 4.6). They generally occur with bands in the colors of white, blue, black, or brown (Miller 1991). These may

have been produced locally as there was a nearby manufacturer in Peoria, Illinois throughout the 19th century (Stelle 2001).

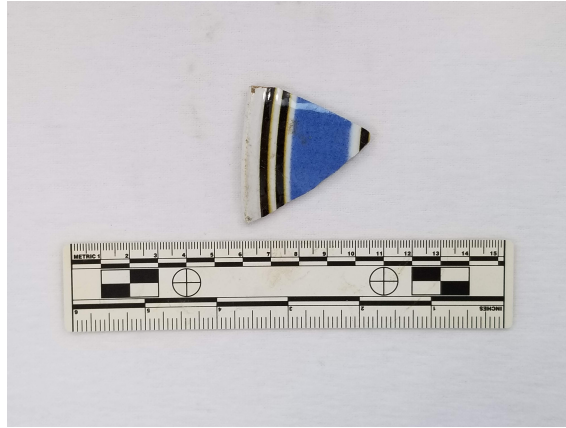


Figure 4.6: Slip decorated whiteware. Photo by author.

There was a sherd count of 76 and an MVC of 2 for the factory turned slipwares. These were the whitewares decorated with the factory-turned slips. The yellowwares had a sherd count of 139 and an MVC of five. For the MVC data charts, these were all grouped together under the ‘annular’ group. One of these annular yellowwares also had a unique pattern called Mocha (Figure 4.7). This special treatment is distinctive by the vine-like or tree pattern around the outside of the vessel usually in the colors of brown, black or blue. These pieces date to the latter half of the 1800s (Miller 1991; Florida Museum 2020).



Figure 4.7: Slip decorated yellowware, mocha design. Photo by author.

Hand-Painted Underglaze hand-painted ceramics began to appear in the late 18th century mostly appearing with blue paint on pearlwares. Polychrome patterns became more popular around 1815 and were among the more expensive ceramics (Miller 1991) (Figure 4.8). Incorporating black stems into the hand-painted floral patterns are diagnostically dated to about the 1830s and remained popular until about the 1870s (Miller 1991; Samford 2003). Only one of the sherds analyzed in this collection did not have these black stems, possibly dating it to an earlier decade. The other vessels with some hand-painted decoration included the annular bands that were painted on rather than wheel-turned slipped or transfer printed.



Figure 4.8: Various hand-painted whitewares. Photo by author.

Sponge Decoration Most sponge decorated wares were produced in the United States between 1820 and 1860 with a peak date of 1830 (Samford 2003). In this collection, there are two distinct sponge decorations of open (Figure 4.9) and closed sponge (Figure 4.10). The open sponge decoration often appeared in large loops leaving some white space between the sponged paint. The closed sponge decoration had a continuous sponge paint pattern leaving no white space. The sponge decoration for both types typically did not cover the entire vessel, rather the decoration was kept near the rim of the vessel. Around the 1870s, a cut sponge decoration emerged that still used the sponge dabbing technique but there were distinct shapes such as flowers and stars (Samford 2003). None of these cut sponge decorations appeared in this assemblage, though. There was a total sponged sherd count of 193 with an MVC of 12. The sponged colors appeared in red, green

and blue; however, there were not any single vessels that had more than one color.



Figure 4.9: Red open sponge painted whiteware. Photo by author.



Figure 4.10: Blue closed sponge painted whiteware. Photo by author.

Redwares Redwares are hollowware vessels usually used for food preparation or storage. These wares are made from a red clay and often have some form of lead glazing either clear or colored. Because of the simplicity of the forms and the readily available clay, these are common, cheap, and span a long time. In America, redwares can date from 1725 all the way up to the present (Ramsay 1939). Most redwares in this assemblage had clear lead glazing with a few exceptions of something known as Galenaware (Figure 4.11). These vessels were produced in Galena, Illinois, located about 180 miles north of Nauvoo on the Mississippi River, possibly indicating the river was used to transport the wares to Nauvoo. Galenaware is unique in that it is glazed with a lead glaze containing lead sulfide, alumina, and silica resulting in an orange, yellow, green, or brown

hue. Galenaware was produced in Galena from about the 1840s to the 1900s (Mansberger 1994). There are about fourteen sherds of Galenaware with an MVC of one. Though small in numbers, it is significant that there is a unique, locally produced vessel appearing in this assemblage.



Figure 4.11: Galena redware: Galenaware. Photo by author.

Most of the other redwares were also likely to be locally produced, as the area was rich with clay material and Nauvoo had several potters (Mansberger 1994; Mounce 1989; Anderson 2008). It is unclear what type of pottery was produced by these Nauvoo potters, but typically redwares and stonewares were manufactured in local potteries such as the Nauvoo potters. The 1840s in Illinois were a sort of transition decade, shifting from a preference of redwares to stronger stonewares (Mansberger 1994). There were 125 redware sherds with an MVC of eight. Six of these were identified as jars (Figure 4.12), and the other two were identified as unknown hollowware. Redware vessels were common storage vessels and mixing bowls and usually had a lead glaze (Figure 4.13).



Figure 4.12: Salt glazed redware jar, likely locally produced. Photo by author.



Figure 4.13: Redware with lead glazing, likely locally produced. Photo by author.

Stonewares There were 155 stoneware sherds identified with an MVC of 16. Stonewares were commonly decorated by throwing salt in the kiln. The salt oxidized onto the ceramic resulting in the distinctive “orange peel texture” found on many stoneware vessels (Ramsay 1939) (Figure 4.14).



Figure 4.14: Salt glazed stoneware with slip glaze interior. Photo by author.

Because salt glazing was applied in a sort of gas form, the interior of the vessels would not receive the same glazing as the exterior. Thus, a slip decoration was often applied to the inside. This most commonly was a brown slip known as Albany Slip. This became a popular ceramic type in Illinois by the 1840s (Mansberger 1994; Ramsay 1939). Ten of the 16 stoneware vessels had an interior slip like this description (Figure 4.15).

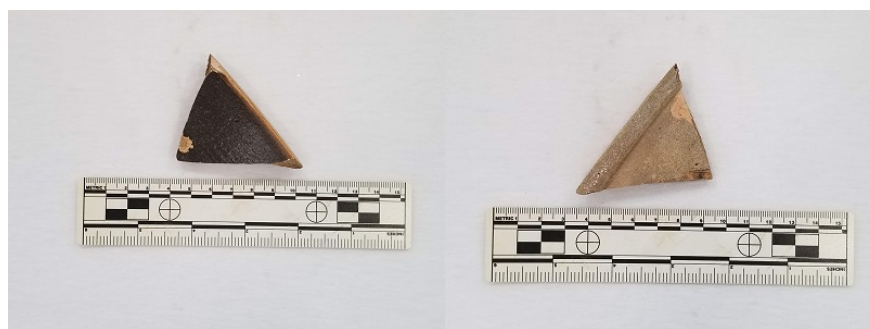


Figure 4.15: Albany slip interior stoneware. Salt glazed exterior. Photo by author.

Two of the stoneware vessels are jugs, three are jars, one is a crock, one is a bottle, and the others were identified only as hollowware. Apart from the bottle, these vessels were used to store food. The bottle was identified as a Ginger Beer bottle, distinctive by the creamy white Bristol glaze on the bottom two-thirds of the bottle, fading into a tan slip on the upper one-third of the bottle (Figure 4.16). This style of glazing bottles began in England around 1835 and the technique appeared in the United States shortly after (Florida Museum 2020).



Figure 4.16: Ginger beer bottle with Bristol glaze faded into a ferruginous slip. Photo by author.

Porcelain Porcelain is a high-fired ceramic with a refined white or cream-colored paste that can appear vitrified. Porcelain, in this assemblage appears in three different forms. One is industrial which includes items such as toilets, electrical insulators, tiles, or light fixtures. The industrial porcelain in this collection consists of a single electrical insulator. Another form of porcelain in this assemblage is a doll, this is typically referred to as bisque porcelain. There is only one small piece, but it seems to be an eye of a doll (Figure 4.17).



Figure 4.17: Piece of porcelain doll face. Photo by author.

The last, most common, form is tableware or plates. These occurred in the last half of the 19th century in Illinois and were commonly either gilded (Figure 4.18), transfer printed, painted or decal (Stelle 2001). In total there were 62 porcelain sherds, including the doll and the industrial porcelain, with an MVC of seven; nine including the insulator and the doll (Stelle 2001).

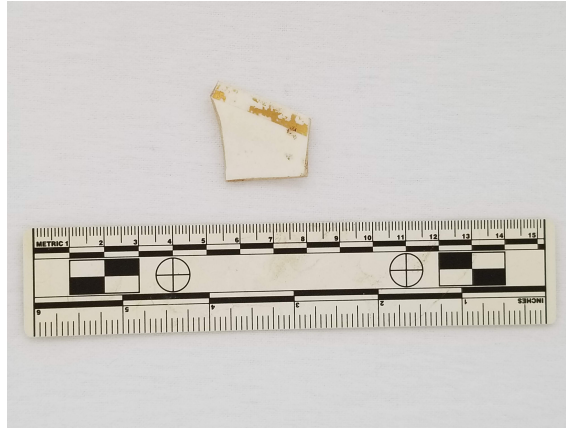


Figure 4.18: Gilded porcelain saucer sherd. Photo by author.

Yellowware Yellowwares were previously discussed in the annular ware section. This is because most of the yellowwares were slipwares and mocha wares (Figure 4.19). However, not all slipwares were yellowware (n=148), rather some were whitewares (n=76). Another type of yellowware in the assemblage is called Rockingham (Figure 4.20). These are unique because of the brown glazing appearing to have a tortoise shell pattern. This type first appears around the 18th century and reaches the Illinois region in the 1830s. This pattern was applied in several ways giving it this unique pattern including brushing dipping or splattering (Spargo 1926). Eight Rockingham sherds were identified with an MVC of two.



Figure 4.19: Slip decorated yellowware. Photo by author.



Figure 4.20: Rockingham glazed yellow hollowware. Photo by author.

4.2 Faunal Data

The faunal assemblage consisted of 4074 bones with the total weight of the assemblage being 9904.9 grams (Table 4.5). Several species were identified in the assemblage including cow, raccoon, pig, chicken, galliforme, cat, and rabbit (Table 4.5). A minimum of 36 individuals were identified. Pig and medium mammals were the most frequently identified animals by bone count and bone weight. Large mammals consisted of cow with a total Minimum Number of Individuals (MNI) of two. Further, almost seven percent of the assemblage ($n = 274$) showed evidence of various forms of butchering such as being chopped or sawn. Twenty-one percent of the assemblage were avian remains by bone count, though making up five percent of the total assemblage bone weight. Nine percent of the assemblage could not be identified to animal class. Almost three percent of the assemblage were fish bones, likely multiple species. Unfortunately, most of the fish remains were not identified to species due to lack of comparative skeletons of fish in the UI lab and the complexity of fish bone identification. However, bone element was identified when possible.

Species	NISP	%NISP	MNI	Weight (g)	Biomass (kg)	%Biomass
Canid	7	<1	–	3.1	<1	<1
<i>Felis catus</i> (Cat)	26	<1	1	18.8	<1	<1
<i>Siluriformes</i> (Catfish)	5	<1	1	1.2	<1	<1
<i>Gallus gallus</i> (Chicken)	294	7.2	14	248.1	3.1	2.5
<i>Bos taurus</i> (Cow)	34	<1	2	1828.7	22.7	18.7
<i>Anatidae</i> (Duck)	6	<1	1	2.8	<1	<1
Galliforme	98	2.4	–	48.9	<1	<1
<i>Sus scrofa</i> (Pig)	538	13.2	11	3690.2	42.7	35.2
<i>Oryctolagus cuniculus</i> (Rabbit)	21	<1	1	21.5	<1	<1
<i>Procyon lotor</i> (Raccoon)	60	1.5	2	112.6	1.9	1.5
Rodentia	31	<1	–	12	<1	<1
<i>Tamiasciurus hudsonicus</i> (Squirrel)	6	<1	1	1.7	<1	<1
<i>Meleagris gallopavo</i> (Turkey)	9	<1	1	12.1	<1	<1
Turtle	10	<1	1	9.8	<1	<1
Unident. LG Mammal	127	3.1	–	1646.2	20.7	17
Unident. MD Mammal	434	10.7	–	1086.4	14.2	11.7
Unident. SM Mammal	369	9.1	–	144.8	2.3	1.9
Unident. Bird	439	10.8	–	152.6	1.9	1.6
Unident. Fish	113	2.8	–	30.8	–	–
Unident. Mammal	1088	26.7	–	687.8	9.4	7.8
Unident. Reptile	7	<1	–	5	–	–
Unidentifiable	352	8.6	–	139.8	–	–
<i>Total</i>	<i>4074</i>	<i>100</i>	<i>36</i>	<i>9904.9</i>	<i>121.3</i>	<i>100</i>

Table 4.5: Species in the Assemblage

4.2.1 Mammalian Remains

Mammalian remains number 2740 fragments equaling 68 percent of the total NISP and a weight of 9216.9 grams equaling 94 percent of the total assemblage weight and 95 percent of the biomass. Domesticated cow and pig make up most of the mammalian remains. This is unsurprising since these mammals were the most consumed meats in the country in that time (Skaggs 1986). The most surprising detail about the mammalian remains was the number of pig cranial fragments in the assemblage (Table 4.7).

Element	NISP	Weight (g)
Head and Neck	511	3310.4
Axial	87	368.1
Forelimb	23	250.8
Forefeet	25	83.4
Hindlimb	11	126
Hindfeet	24	162.8
Toes	25	53.9
Unidentified	239	415.1

Table 4.6: Element Distribution Summary: Pig and Medium Mammal

Sus scrofa Pig is the most identified animal in the assemblage with a NISP of 538, MNI of 11 and bone weight of 3690.2 grams (Table 4.5). Interestingly, most of the bones (n=511) come from the head and neck area of the pig (Table 4.6). Of the cranial elements, 15 showed evidence of cut marks or butchering, likely from disarticulation of the head (Table 4.7). Because no other medium mammal species was identified, the unidentified medium mammal bones have been grouped together with the pig data for analysis.

Element	NISP	Weight(g)	Biomass
Head and Neck	15	502.7	7.1
Axial	37	144.2	2.3
Forelimb	13	201.7	3.1
Forefeet	1	10.3	<1
Hindlimb	2	62.9	1.1
Hindfeet	6	41.7	<1
Toes	4	8	<1
Unidentified	44	131.8	2.1
<i>Total</i>	<i>122</i>	<i>1103.3</i>	<i>16.9</i>

Table 4.7: Butchered Element Distribution Summary: Pig and Medium Mammal

There was one mandible that was sawn in a way that suggests butchering to remove the cheek meat from the skull as shown in figure 4.21.



Figure 4.21: Three of several pig mandibles and teeth. Photo by author.

The head and neck category make up the third most prominent category of pig bones present ($n=74$). The head, neck, and feet portions of the pig body are the least desirable meat categories (Berger & Associates 1996). Very little of the identified pig bones came from the axial or appendicular portions of the skeleton. This is likely a result of how the faunal remains were analyzed. It is possible that many of the unidentified medium mammal axial bones were pig remains, but I took a conservative approach with the identification of rib and vertebral fragments. With that said, there were 87 axial bones recorded as unidentified medium mammal with a biomass of 368.1 grams being the second largest category.

Bos taurus There are 161 cow and large mammal bones that have a total weight of 3474.9 grams. Despite a smaller bone count, the cow and large mammal remains represent a high of biomass (43.9 kg) though just over half the biomass of pig remains (42.7). Cow and large mammal remains were combined as there were no other species of large mammal generally available in the Nauvoo area at the time. To illustrate, table 4.8 displays the element distribution of the cow as well as large mammal.

Element	NISP	Weight (g)
Head and Neck	15	176.4
Axial	45	1029.8
Forelimb	9	399.3
Forefeet	4	189.6
Hindlimb	16	731
Hindfeet	8	340.1
Toes	1	18.1
Unidentified	63	590.6
Total	161	3474.9

Table 4.8: Element Distribution Summary: Cow and Large Mammal

There are two notes to highlight with table 4.8 and 4.9. First, most of the cow bones that are present come from the area of the cow (n=61) that carries more meat than pig skulls would have. In comparison, pig only had seven bones that came from the more desirable meat portion of the pig (such as the axial and hind limb areas). Second, noticeable in table 4.9, 45 of the 61 bones from the axial and hindlimb sections were butchered, although only fourteen of these butchered bones were identified to a retail cut. Figure 4.22 illustrates a chopped cow tibia and figure 4.23 shows a sawn femur resulting in a beef steak cut.

Element Group	NISP	Weight (g)	Biomass (kg)
Head and Neck	4	106.1	1.75
Axial	34	947.2	12.55
Forelimb	7	336.5	4.95
Hindlimb	11	614.9	8.51
Hindfeet	4	205.9	3.18
Unidentified	30	307.7	4.56
<i>Total</i>	<i>90</i>	<i>2518.3</i>	<i>35.5</i>

Table 4.9: Butchered Element Distribution Summary: Cow and Large Mammal



Figure 4.22: Butchered cow tibia. Photo by author.



Figure 4.23: Cow steak cut from a femur. Photo by author.

Procyon lotor The most prominent wild species in the assemblage was raccoon. A total of 60 fragments with a weight of 112.6 grams were identified. There were at least two different raccoons present in the assemblage. This is not surprising as these animals were, and still are, very common in the region. Several of the raccoon bones were found complete and together in a single provenience, including fragile bones such as the cranium (Figure 4.24).



Figure 4.24: Raccoon Skull. Photo by author.

Rabbit Rabbits are also a native wild species in the region and unsurprisingly made an appearance in this assemblage. There were 21 bones identified to this genus with three of the bones showing evidence of butchering. While Nauvoo was a prosperous place with plenty to eat, several people still experienced poverty especially upon arrival to Nauvoo (Leonard 2002). Hunting rabbits, or killing them as they were seen, was likely a way to save money (though consumption of rabbits is common in historic sites regardless of socioeconomic status) and still put food on the table (Heinrich and Giordano 2015). Some people also may not have owned any animals or had the means to purchase meat from the local stores. Although rabbits are abundant as wild species in the area, they are also easy and relatively inexpensive to raise as a domestic species. The data was inconclusive about whether the rabbits were domestic or wild.

4.2.2 Avian Remains

There was a total of 846 bird bones recovered, 407 of these bones could be identified to some degree (Table 4.10). The bird bones together weigh 462.8 grams which is about five percent of the total assemblage weight. The element distribution was evenly distributed except for phalanges and cranium bones (appendix table 7.7). The bulk of the bird bones came from axial and long bones (n=699). Only eight bird bones were identified as butchered.

Species	NISP	%NISP	MNI	Weight(g)	Biomass(kg)	%Biomass
Chicken	294	34.8	14	248.1	3.1	51.4
Duck	6	<1	1	2.8	<1	<1
Galliforme	98	11.6	–	48.9	<1	11.4
Turkey	9	1.1	1	12.1	<1	3.2
Unidentified Bird	439	51.9	–	152.6	1.9	33.1
<i>Total</i>	<i>846</i>	<i>100</i>	<i>16</i>	<i>464.5</i>	<i>5.9</i>	<i>100</i>

Table 4.10: Avian Species in the Assemblage

Gallus gallus Chicken is the most prominent bird species in the assemblage (n=294) and has a total bone weight of 248.1 grams. This makes up about 7.5 percent of the NISP. In terms of MNI, chicken was the most identified species in the assemblage. On the other hand, the chicken biomass measures at about 3.1 kilograms which makes up 2.5 percent of the total assemblage biomass. Nearly every bone in a chicken's body was identified in the assemblage (Figure 4.25). This is not surprising as chickens would likely have been raised in backyards. Or if they were purchased, they were typically purchased as whole birds. Chicken was a common source of meat, but was also favored to be kept alive over other livestock for egg production (Givens 1990).



Figure 4.25: Assortment of chicken bones. Photo by author.

Anatidae There were only six identified duck bones in the assemblage. Though the numbers are small, it is further evidence to indicate some consumption of wild game, along with the rabbits and possibly the raccoon (Figure 4.26). It is unclear if duck hunting was common during the Mormon occupation, but it is likely.



Figure 4.26: Duck furculum (collar bone). Photo by author.

Meleagris gallopavo Turkeys are a very common wild bird species around the Nauvoo area. Given this, turkey was a relatively common part of a Nauvoo family dinner. It was bigger than a chicken and more easily feeds a family rather than sacrificing their egg-laying hens for their meals (Godfrey 1984). However, this evidence of commonality is lacking at this Nauvoo site. The turkey bones only numbered nine and had a biomass of 197 grams.

Galliforme Galliforme bird species include chicken, prairie chicken, grouse, and other land fowl. These bones were identified as having different features than Anseriformes but were unable to identify to species. Galliformes had an NISP of 98 which is 2.4 percent of the assemblage. They also had a biomass of 681 grams which is .5 percent of the total assemblage.

4.2.3 Other Remains

There were several other animal bones recovered that were not mammalian or avian. They made up a very small portion of the assemblage but are worth some discussion. These are the turtles and various fish species. Given that Nauvoo is located along the Mississippi River, the appearance of these animals at the archaeological site came as no surprise. Unfortunately, the only fish species identified was catfish. The lack of other species identification was due to the lack of comparative specimens available in the lab.

Turtle (Species Unknown) Both snapping and painted turtles are commonly found along the Mississippi River but only one was present in the assemblage. A minimum of one turtle was found on the site consisting of ten bone fragments (Figure 4.27).



Figure 4.27: Turtle femurs. Photo by author.

Fish There were a total of 118 fish bone fragments, many of them being part of the vertebral column (n=35). The prevalence of fish species in the assemblage was unsurprising as fishing was likely a common way to obtain food due to the proximity of the Mississippi River (Figure 4.28). However, historic records are unclear about how common fish was in the diet of the Nauvoo residents.



Figure 4.28: Fish vertebrae. Photo by author.

4.2.4 Butchering Modifications

There were a variety of butchering methods identified on the faunal remains. Pig and medium mammal had the most butchered bones (n=122) with the most being sawn (n=51). Thirty-six of the pig and medium mammal bones were chopped and the other butchered bones were either cut or a combination of two different butchering methods, or unknown (Table 4.11).

Species	Chop	Cut	Cut/Chop	Cut/Sawn	Sawn	Sawn/Chop	Unid.	Totals
Chicken	3	1	0	0	0	0	2	6
Cow	4	1	0	1	11	0	2	19
Galliforme	1	0	0	0	0	0	0	1
Pig	17	2	1	1	10	1	3	35
Rabbit	2	0	0	0	0	0	0	2
Unid. LG Mammal	16	0	2	6	42	5	1	72
Unid. MD Mammal	20	8	2	2	41	1	13	87
Unid. Bird	0	0	0	0	1	0	0	1
Unid. Mammal	6	3	0	0	32	0	9	50
<i>Totals</i>	<i>69</i>	<i>15</i>	<i>5</i>	<i>10</i>	<i>137</i>	<i>7</i>	<i>30</i>	<i>273</i>

Table 4.11: Butchering by Species and Type

However, this does not mean that these 122 bones were the only bones that were processed as some butchering may not leave marks (such as disarticulation at a joint), or bones were broken due to natural processes, thereby obscuring evidence of butchery. Twelve percent of the pig and medium mammal bones show clear signs of butchering.

Cow and large mammal species also showed significant evidence of butchering. Fifty-seven percent of the cow and large mammal bones show evidence of butchering. The significant percentage of butchered cow and large mammal bone is to be expected. Given the size of the animal, they must be butchered to family-size portions. Chop and cut marks are usually evidence of on-site or local processing. These are both seen on several pig bones such as chop marks on a calcaneus (Figure 4.29) and cut marks on a pelvis (Figure 4.30).



Figure 4.29: Chopped pig calcaneus. Photo by author.s



Figure 4.30: Cut pig pelvis. Photo by author.

Butchered avian remains seem rather small with a count of eight in comparison to a total of 846 avian remains. However, this does not mean that these bones were not butchered, rather butchering marks are difficult to see on bird bones, or often are not butchered necessarily. Chicken and other

birds are easier to consume without butchering given that the bird can be cooked whole and the meat removed after cooking with no need of tools.

4.2.5 Meat Cuts

One area that zooarchaeologists have explored is the identification of meat cuts and their relative values. Meat prices can be quite variable due to a variety of factors (seasonality, availability, etc.). Louis Berger and Associates (Berger et al. 1996) developed a ranking scale for meat cuts. This scale provides a relative ranking of the value of a cut of meat from a certain section of the animal's body. The rankings are based on elements such as meat tenderness and amount of meat in a particular area of the body. Generally, the higher-ranked cuts are more expensive than lower ranked cuts. Unfortunately for this assemblage, many of the cuts could not be identified to a retail meat cut category, but the ones that were identifiable tended to be more costly meat cuts. In addition to a retail meat cut table, I also thought it would be useful to have a general table that summed up the butchered element distribution to see an overview of meat cut value (Table 4.12). It is also interesting to note that 13 of the 16 beef retail cuts were steak cuts, indicating a single-serve portion rather than a larger cut that could be used for multiple servings and meals.

Meat Cut	NISP	%NISP	Weight(g)	Biomass(kg)
Arm (6)	1	6	36.6	0.7
Chuck (5)	1	6	52.9	.1
Loin (1)	2	13	54.6	.1
Neck (8)	1	6	16.1	.3
Rib (2)	1	6	11.1	.2
Round (3)	7	44	126	2
Rump (4)	1	6	134.1	2.1
Sirloin (2)	2	13	99.6	1.65
<i>Total</i>	<i>16</i>	<i>100</i>	<i>531</i>	<i>8.97</i>

Table 4.12: Cow and large mammal ranked retail meat cuts. One being of the highest quality rank and ten being the lowest.

I followed the same procedure for the butchered pig element distributions. The more consumable parts of pigs were probably distributed elsewhere leaving the cheaper parts of the pig behind

such as the head, forelimbs, and feet. Several of the lower quality pig parts (such as the mandibles) show evidence of butchering in figures 4.31 and 4.32.



Figure 4.31: Sawn pig mandible. Saw marks on lower left. Photo by author.



Figure 4.32: Sawn pig mandible on lower jaw. Photo by author.

Aside from this and butchering evidence of removing the head, there is little processing evidence. The cow bones have evidence of retail meat cuts and off-site butchering. These were able to be put into a ranking as mentioned above.

4.2.6 Other Modifications

Other identified bone modifications include burning and gnawing. In total, 177 bones have evidence of burning, both white and black. Eighty of these are bird bones, three are fish, 84 are

mammal, and ten are unknown. This amounts to about 4 percent of the assemblage being burned. Burning can appear because of cooking, but it is also a method of disposal. Interestingly, 150 of the 177 burned bones were burned white, or 85 percent. However, 3 to 4 percent of burned bone is not overwhelming evidence that it was a common method of bone disposal. Rather, throwing and burying in this old building foundation seems preferable.

Only 14 of the bones in the assemblage showed evidence of rodent or carnivore gnawing indicating that the bones were likely buried quickly. Eleven of the bones showed evidence of rodent gnawing possibly indicating a higher presence of rodents in the area or longer bone exposure after deposition for these bones (Figure 4.33). However, the gnawed bones represent a very small percentage of the overall assemblage indicating little disturbance of the whole assemblage after deposition. Three of these rodent gnawed bones showed signs of butchering too.



Figure 4.33: Rodent gnawed bone. See top left of bone. Photo by author.

4.3 Summary

The main takeaway from the faunal data is that this is a large assemblage for a small building indicating that this is likely a situational trash dump containing evidence of several behaviors occurring

within the community (surrounding homes in neighboring blocks). The pig and cow bones indicate a typical nineteenth century diet dominated by pork and beef. The pig bones also suggest local raising and on-site butchering for later preservation and consumption based on the large number of cranial fragments that were recovered. The cow bones indicate a pattern of purchasing commercial beef and disposing of the remains after consumption. While most of the bones are products of domestic animals, some wild game is also present, suggesting at least limited use of wild food sources such as rabbit, raccoon, and fish. The number of ceramics could be result of a cleaning out of multiple households in the area in a relatively short amount of time given the dates in the historical record and the quick burial of the bones. This evidence is shown by mending pieces that were found in different proveniences. For example, one stoneware jar sherd from Unit 234 level two mended with another sherd from unit 253 level 11, a depth difference of 18 inches indicating that the site was churned up and the mass deposition of artifacts happened in a short time.

From the ceramics, there is a mean date of 1844 and many of the ceramics have a mean date between 1840 and 1865 indicating a rather narrow time frame of activity at the Smith site, though the glass could provide a more accurate date range. Historical records suggest that the site remained property of the Smith family aside from the few years in the 1850s that it was owned by the state (Deed records; Shireman 2005). This narrows down the amount of people that have interacted with the site to the Mormons during their time in Nauvoo and particularly to the Smith family after most of the Saints moved to Utah. Though most of the dates come from the decorated earthenwares, aspects of consumption patterns can be read from the entire ceramic assemblage. Despite the lack of MVCs for the undecorated white earthenwares, there is a substantial number of sherds that are indicative of socioeconomic status, for example a significant number of decorated earthenwares suggest that several of the Mormons were not in a poverty-stricken state either, but rather fitting into a middle-class standing or higher. The faunal remains would suggest a similar interpretation. The following chapter builds more on this argument.

Out of the 511 head and neck pig bones, 325 of them were found in unit 253 levels 7 and below, representing a minimum of 11 pig crania based on the lower right first premolars present. Consid-

ering each level is two inches this would mean that over half of the pig head and neck elements were found on the bottom two feet of the excavation within ten feet of each other. The fact that at least eleven skulls were recovered in proximity suggests a single mass butchering event. Community gatherings for butchering of multiple animals was a common practice as hog killing was a labor-intensive endeavor (Horowitz 2006). As many of these behaviors argue a community-wide interaction with the site, the archaeology can shed light on patterns illustrating group behaviors during the Mormon occupation of Nauvoo.

CHAPTER 5

Mormon Foodways, Identity, and the Diaspora Community

Food, ceramics, identity, diaspora, community, Mormons. These all seem to be rather unrelated terms, but they are, in fact, all very interrelated in this study. Food contributes to and maintains an identity within a culture and helps shape a community identity, particularly in instances of diaspora (Mintz 2008, Parveen 2016). Early Mormon groups were constantly pushed from place to place having to move and readjust to new places that affected their material culture, the food they ate and how they ate it. These choices were made both by individuals and the community shaping what it meant for people to be a part of the group and how they defined themselves. Being a diaspora gave the Mormons (and other diasporic groups) a stronger sense of cohesion as they all had two things in common: a common faith and exile. This discussion will focus on the relationship between all the terms listed above and how they play into the narrative of the lives of the Mormons living in Nauvoo from 1839 to 1846.

First, definitions are needed to understand use of the terms going forward. Defining diaspora is tricky and can be controversial as the lines between diaspora and transnationalism often blur (Daswani 2013). Members of the church in Nauvoo were forced from one location to another either by mobs or orders of the local or state government but remained within the same country. For some scholars, this does not qualify this group to be considered a diaspora until their movement to Salt Lake as it was part of Mexico at the time (Goodsell 2000) (Figure 5.1).

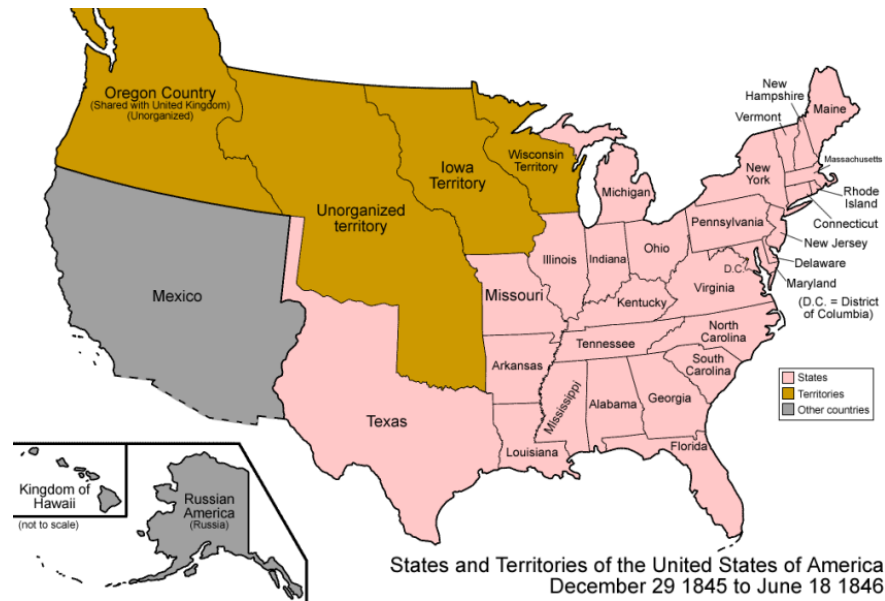


Figure 5.1: United States in 1846. Image from: <https://annexx51.wordpress.com/pr-101/territorialism-in-the-u-s-maps/050-states-and-territories-of-the-united-states-of-america-december-29-1845-to-june-18-1846/>

A diaspora is a migrant group that has been displaced “but who continue to share religious, ethno-national, or national identity” (Daswani 2013: 36). Members of a diaspora often have memory and a longing for their homeland from which they were removed and maintain a sort of boundary between them and the new host culture and society (Mintz 2008; Daswani 2013; Parveen 2016; Jagganath 2017). Mormons did not collectively have a single homeland from which they came, but they always did have a longing for a place they could call home.

Foodways can be defined as a cultural, historical, and environmental implication for eating and culinary habits. It includes considerations of food production, preparation, distribution, consumption, and disposal. Place and location play into foodways in that meals and food acquisition can depend on the food supply of the area affecting what is consumed or what - or is not - preferred to consume (Mintz 2008, Twiss 2019).

Another important term to define for the purpose of this thesis is identity. It is generally understood as an expression of the self, or in this case, a group. In this discussion, identity is just that along with how identity both contributes to and is constructed by the community. Alfonso et al. (2004: 157) explains identity as the “expression of coincidence and solidarity of the individ-

ual person and the group, socially constructed rather than culturally 'given.'" Group identity thus also creates solidarity while also creating a boundary between themselves and others within the broader society of the United States, that only perpetually contributes to a stronger bond between members of the group. This bond is key to creating and contributing to a popular ideal of that time of developing a utopia (Goodsell 2000).

A utopia is characterized by a group of people living together sharing resources and wealth to create an idealistic, local community (Madden and Finch 2006). I use local community to refer to Nauvoo and not Mormons as a whole since church members were spread throughout the world because of missionaries creating a widespread Mormon community. That being said, I use community here as a group of people who share a set of beliefs, interests, and goals. This idea of community is reinforced by Benedict Anderson's book *Imagined Communities* (1991) as he states that communities are imagined because the members may never know "most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (1991: 6). All members of the Church of Jesus Christ of Latter-day Saints are part of the same church or community, separated only by distance, both then and now. Anderson also described community as a group of people who are deeply connected "regardless of the actual inequality and exploitation that may prevail..." (1991: 7). The worldwide church is a community despite being spread across long distances.

Goodsell (2000) conducted an ethnographic study of Mormon solidarity in Utah, but I used his elements of solidarity to look at the community solidarity in Nauvoo. He talked about several of these elements and I found the following to be the most applicable to Nauvoo: leadership, ideology, conflict, cooperation and the environment, gossip, and service. Goodsell talked about the prophet unifying the church today. This is true, but he points out that since the church is spread so far, local leaders exist to bring together and unify the groups in that manner. In Nauvoo, the church was large and spread across the country and into parts of Europe having some form of local leadership, but Nauvoo was the center that called for a gathering of the scattered members. I would argue that this central leadership solidifying the church community is more relevant in the Nauvoo narrative

more so than in the church today.

It is also obvious that the church community is unified by ideology. There were a few members that did not like Joseph Smith and pushed back on his teachings, but most members had great faith in the prophet and loved him dearly. They enthusiastically followed his teachings and counsel. Many of these teachings centered around helping those in need either physically or spiritually. This is evident in the payment of tithings, but also many members went out of their way to help suffering friends and neighbors through the law of consecration. The Relief Society, an organization of women, formed in Nauvoo with its goals aimed at humanitarian work and to “practice virtue and preach truth” as their spiritual obligation (Leonard 2000: 224).

Nauvoo residents also shared the solidarity element of conflict, meaning they faced conflict with those outside their faith together, also seen in their insularity and forming of the Nauvoo Legion. Because they all faced this conflict, they had their fellow church members to turn to for friendship and support. According to Goodsell’s study, commitment to the faith was also crucial on solidifying themselves in the midst of conflict from the non-members or anti-Mormons. Without this ideological commitment “external pressures would cause the group to dissolve” (Goodsell 2000: 368). This directly relates to the solidarity element of cooperation and the environment. Many of the church members in Nauvoo pulled together to help those suffering from the effects of natural disasters or other troubled times to adapt and overcome. This is seen by the support shown when church members were forced to move to the frontier and having to rebuild homes and roads, something with which many of them were inexperienced save a select few. These few contributed their skills either voluntarily or in exchange for a good or service the people they helped can provide. This ties into the solidifying elements of service and gossip. Gossip is referred to in Goodsell’s article not as a bad thing, but rather as a way that word spreads of who is in need of certain things until it reaches the people who can best help the one in need. For example, one might explain to their neighbor that they need eggs to make bread. That neighbor does not have any to contribute, but instead tells their friends and one raises chickens for eggs. This friend brings eggs to the one in need in return for a loaf of the bread. In the Mormon community, both then and

now, service to each other is a sort of social norm (Goodsell 2000).

Nauvoo was the biggest gathering of Mormons at that point. With population of about 12,000 it was not only a significant place for the Saints, but also an impressive city in the developing Midwest region. While the people of Nauvoo did trade with other cities for their supplies, they aimed to be self-sufficient. Most of the labor that existed in Nauvoo consisted of work that was typical of nineteenth century life, such as farming, construction, shoemaking, and potter. Many of the Nauvoo residents took on several of these jobs at once (Godfrey 1984). Though this was not uncommon for towns and cities in the Midwest, it was certainly a new concept for many Nauvoo residents originally coming from well-established locations closer to the east coast. Some may have come to Nauvoo with previous careers of business, law, or journalism but they had to quickly learn how to construct buildings and farms or take on other tasks that were needed to contribute to the city's development. Many were also able to contribute their trades of woodworking, construction, and pottery. Economic associations were formed within Nauvoo that helped to keep money circulating within the city rather than out to other cities for supplies that would thus help in creating a sort of utopia. These behaviors may be represented in the assemblage by the presence of locally produced stonewares and wild game animals such as, raccoon, fish, and turtle. Not only that, but also the evidence of a hog-butcherer event that was then distributed and preserved for the cold months to come.

An example of working to create a self-reliant economy in Nauvoo is the Nauvoo Agriculture and Manufacturing Association (briefly discussed in chapter 2) and its efforts to build a large pottery. Though the effort failed in 1842, the local potters came together anyway and formed the Nauvoo Potters' Association in 1845. Many of this group's members were English immigrants and sold English-style ceramics. Other potters in town sold Old Connecticut style wares or local earthenwares (Leonard 2002). A local potter that produced local earthenwares was Horace Roberts who moved to Nauvoo in 1841 and became Nauvoo's first full-time resident potter. Outside of Nauvoo, Hancock County only had one other potter in the early 1840s (Andersen 2008). Roberts produced some redwares as iron-rich clay was abundant in the area, but mostly stonewares since

there was a new discovery of a rich source of stoneware clay in the area also (Andersen 2008). Many other of the Nauvoo potters likely produced variety of redwares and some stonewares that may be represented within the ceramic assemblage.

Nauvoo's local potteries helped with the local economics, but most of the assemblage is decorative wares which were imported from either the east coast or overseas. This indicates an element of reliance on outside sources rather than the self-reliance the Nauvoo Mormons aimed for. On the other hand, the faunal remains indicate locally produced food storage whether that be for the animal owners or for food donations to the Mormon lay people or those most in need of food for the winter. Less likely is the chance of commercializing the hog meat as there is no evidence of meat packing in Nauvoo.

Food and food practices was one of the resources that was easier to keep within Nauvoo and it says a lot about the cultural identity of the individuals and the community. In fact, food has great power in utopian communities, such as Nauvoo, in shaping identity of self and the group. This is accomplished by centering activities and labor around food and foodways enabling the community to reinforce their ideals. This behavior is seen in the artifacts in the Samuel Smith assemblage, especially with the pig skulls. Given that there are at least eleven pigs represented in the assemblage that were all found in the same location on the site, shows a pattern of market independence. These pig skulls reflect local butchering of multiple pigs throughout the neighborhood likely belonging to multiple families. This single butchering event brought people together in the name of food and providing a collective service for the community.

Madden and Finch (2006) illustrate how food functions in societies such as these through four, interrelated ways. The first one is symbolic in how the group communicates and shares values. The second one is functional as it brings people within the community together whether that be through labor or gatherings and celebrations. The third way is mnemonic because food can act as a memory device among groups bringing the past to the present. The fourth way is dynamic in that it reflects social and cultural values of differences within the community. All four of these different functions of food in society are reflected in the different elements of foodways of production,

preparation, distribution, consumption, and disposal. All these elements are “intertwined with a society’s political economy and its patterns of social differentiation” (Landon 2005: 11).

The Mormons used food symbolically in several ways. They did not necessarily find meat more valuable in their society; behavior that would differentiate Nauvoo from other cities throughout the country (Hoge and Groover 2014), but they did value what animals they kept alive. Since Nauvoo strived to become self-reliant and closer to God, having an agrarian lifestyle aligned well with the doctrines of Mormon Millennialism and other religious expectations of living above poverty but avoiding pride-inducing wealth (Leonard 2002) – although, this particular ceramic assemblage manifested some pridefulness. Cattle and horses were important in fulfilling the needed labor in the agrarian lifestyle; therefore, they were more important alive than on the dinner table. That’s not to say that they did not obtain beef from the store, but they were more likely to keep some of their cows alive for labor as well as to get products such as milk to drink or to make cheese and butter. Considering proper refrigeration was hard to come by, the latter was more likely (Givens 1990; Woodland and Swindle 2008). This evidence is shown in the assemblage data in that the cow bones indicate that beef was commercially butchered, sold, and bought. One possible reason for commercial beef over butchering their personal cattle is keeping cattle alive for labor of live products like milk. As Nauvoo city tax records show, most properties within city limits were taxed for cattle.

Food also served a functional purpose among the Mormon diasporic group in Nauvoo. Being an agrarian society, Nauvoo residents often paid for labor and goods by trading their produce. Religious expectations concerning the laws of consecration and tithing also meant that the church members should donate surplus material upon conversion and then should donate one-tenth of their income after that (Leonard 2002). This has given the church members a sense of community as these donations were used in support of building the city and helping those in need within their own network.

Hog-killing time was a community event exhibited in the faunal assemblage by a minimum of eleven pig skulls. This event is most notable in the American South but was common every-

where before refrigeration. Communities often had late fall festivities that involved community pig slaughtering that would occur after a freeze that seemed it would last at least several days (Taylor 2008) or “after the October full moon” (Bass 1995). These were often community events that involved the entire family (Bass 1995).

According to Parveen (2016), foodways of certain individuals and groups are built on memory, and especially with diasporic groups, a memory and nostalgia of their homeland. Even though the food in Nauvoo resembled the food in most other frontier settlements, much of the cooking in Nauvoo was varied as many of the residents came from many different places and upbringings. Many of the women cooked from memory as their mothers taught them and had few recipes to follow. Few cookbooks existed and the ones that did lacked the specific measurements seen in cookbooks today since many households did not have scales or measuring spoons (Givens 1990). Making food from memory allowed households to bring pieces of their past with them as they were moving away from where the memories were born (Cheney 2012).

Because of the great variety of backgrounds, this may have created a dynamic foodways in Nauvoo. Food in Nauvoo also reflected standards and beliefs of their religion. Revelation also led to the prohibition of liquor consumption except for if prescribed as medicine. However, beer was not considered liquor and was even considered healthy among most people in the United States during that time, providing some explanation for the appearance of the stoneware ginger beer bottle (Givens 1990). Overall, the food and ceramic remains provide concrete evidence of some aspects of daily life in Nauvoo and potentially hint at religious beliefs and reflections of other behaviors of the church members during their tenure in Nauvoo.

CHAPTER 6

Site Formation and Interpretation

6.1 Site Formation

Although both ceramics and bones together can indicate a pattern of foodways, how they appeared in the archaeology was different. The ceramic provenience data shows that the vast majority of the sherds were found in levels one through five (Figure 6.1). There are many factors to consider when trying to explain this pattern. One is that levels one through seven could have been more disturbed as shown in stratigraphy map (Figure 7.11 in appendix E). Also, the ceramics in these upper levels were more fragmented. The ceramics in the lower levels –levels seven through twenty – are in larger pieces and more intact, whereas the ceramics in the upper levels – levels one through six – are very fragmented.

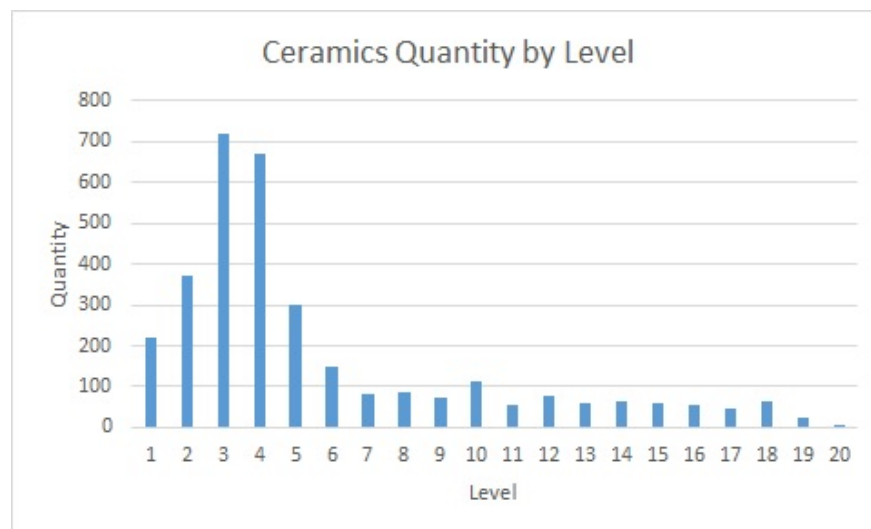


Figure 6.1

It should also be noted that another reason there are more sherds in the upper levels across the entire site is that only the upper levels were excavated outside of the foundation units. To adjust for this, I calculated the ceramic sherd frequency for the main units of the foundation, units 233 and 253 (Figures 6.2 and 6.3). While the sherds in the upper levels are more fragmented than in the lower levels, the sherd density is more consistent across the levels.

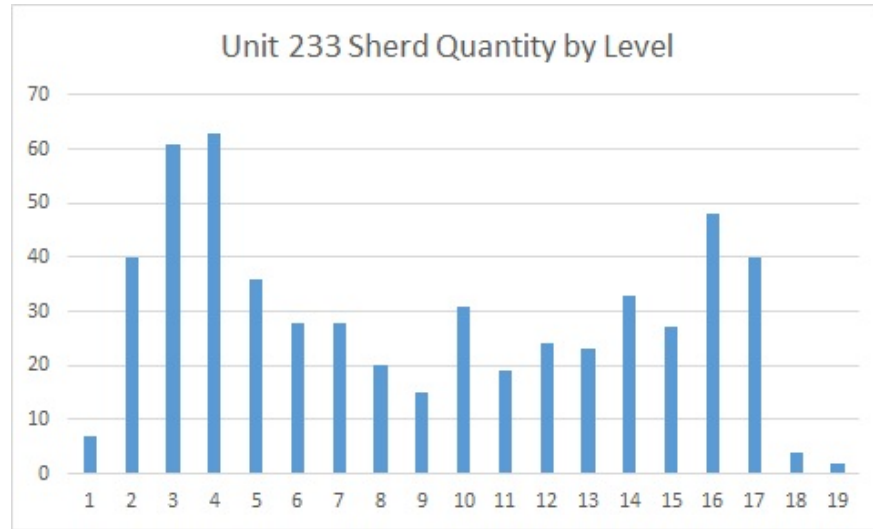


Figure 6.2

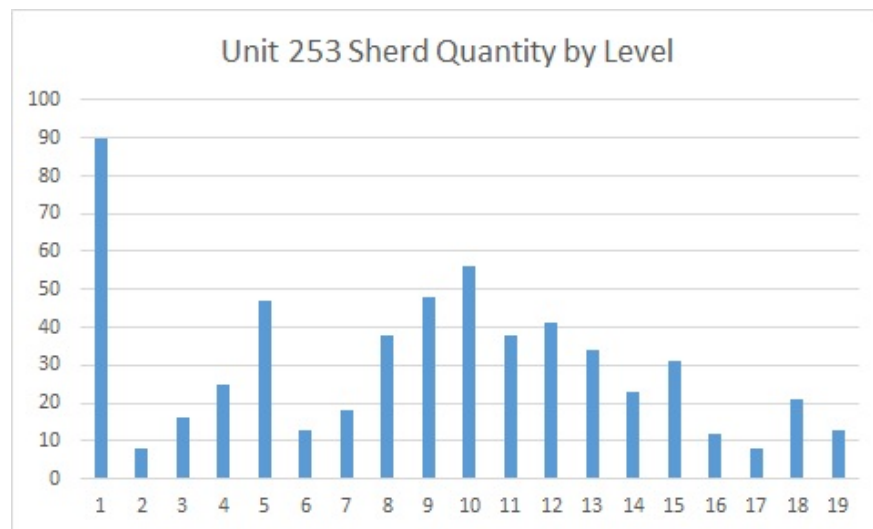


Figure 6.3

The stratigraphic layers exhibit different behaviors when also considering the faunal distribution (Figure 6.4). A majority of the bones were found in unit 253, within the foundation and in the lower strata (Figure 6.5). The faunal data contrasts with the ceramics displaying different deposition patterns. As mentioned in chapter four, there is very little evidence of animal gnawing on the bones indicating a fast burying of the butchered remains. However, there are multiple ceramic sherds that mend from both the upper and lower strata. A possible explanation is that the bones in the southeast corner of the foundation were quickly buried but the rest of the site remained open

for other waste disposal.

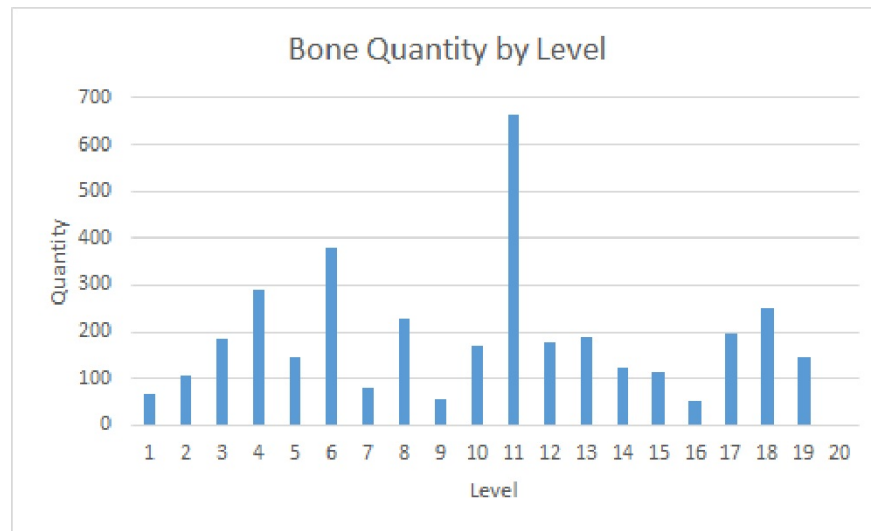


Figure 6.4: Bone Quantity by Level

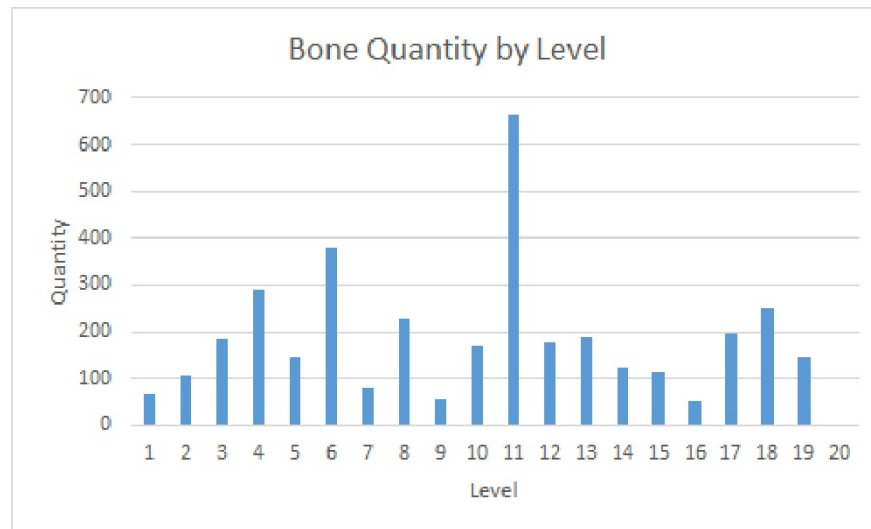


Figure 6.5: Bone Quantity by Level

There may be some bones and ceramics that could have belonged to the original occupation and use of the building; however, this is unclear given the assemblage I chose to analyze. Data from the metal and the glass could provide greater insight into what the building once was and narrower date ranges that could better correlate with the stratigraphy and explain depositional behavior. The ceramics do indicate an average date range of 1844 with a narrow range with over half of the sherds

dating to the Mormon occupation. As discussed previously, this may indicate a mass dumping of tablewares in a window of about six years.

According to Landon (2005: 11), “in historic zooarchaeology, our understanding of the archaeological and historical context of an assemblage often includes detailed information about the function of a site, the people that occupied it, when it was occupied, and the basic nature of subsistence practices.” After this discussion of food and diaspora, food is often more than simply a means to satisfy a need. There are many cultural and social influences on what to eat and how to eat it. As mentioned previously, many of these choices have to do with their circumstances on the frontier and several other choices revolve around religion, identity, and their threatened circumstances as a diaspora. The evidence at this site aligns much with other towns and cities in the Midwest (Groover 2008; Groover and Hogue 2014). Regardless, this information tells a great deal about the Mormon food choices in Nauvoo.

Firstly, most of the faunal remains are from domestic animals such as cows, pigs, sheep, and chicken. There is a small amount of wild animals used for food consumption such as raccoon, fish and possibly some birds such as turkey and duck. About 74 percent of the assemblage is made of the domestic species of cow, pig, sheep, and chicken.

As seen in the analysis section, pig remains made up most of the assemblage by MNI, NISP, bone weight, and biomass indicating that pork may have been the most frequently consumed species in the 147 block area Nauvoo (Figure 6.6). This is consistent with national patterns of meat consumption during the mid-19th century (Horowitz 2006). As previously noted, this location was likely used as a trash pit and contains evidence of multiple activities including pig butchering. The heads remains that were recovered represent more pork than would be consumed by a single family in a year, implying it is evidence of pork production and consumption by multiple households. A comparison of this data to another dump site, such as the Mansion House latrine, would serve useful in understanding the depths of this possibly skewed data, though this may be a topic for future study.

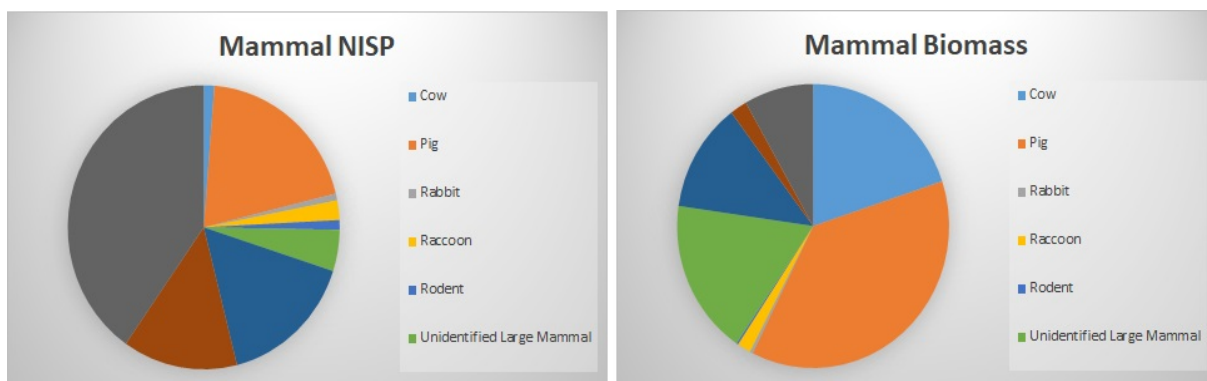


Figure 6.6: Comparison of prominent mammal NISP and Biomass at N147-1

A discussion of beef may be important in understanding the rather low count of beef remains. I did already mention the importance of this species in the agrarian lifestyle; it could have cost the Nauvoo residents more to eat their cows than would be worth it. Beef from the market may have also generally been more expensive than other meats as was the case in most places in America at the time (Horowitz 2006). But

There is ample information about the types of cattle that were common in Nauvoo and their function in the society. Oxen seemed to be most common type of cattle in Nauvoo. These are bulls that have been neutered and grown large for use in labor and farming. These were useful in many ways and could be slaughtered after their retirement. Some oxen were raised and shortly fattened for slaughter to become beef (Givens 1990). Milk cattle were also abundant in Nauvoo, though they did not have the same concerns with milking that dairy farmers today might have. This use for the live cattle may be an explanation for a rather low appearance of cow bones in the assemblage compared to the pig bones.

In the 1840s, they were more concerned about the breed's gentleness, ability to readily be milked and ability to be fattened (Givens 1990). Horses, on the other hand, were not bred to be nearly as strong, hence the preference of ox for farm labor. Instead, horses were bred to be fast and used for transportation. They were often also more expensive than oxen and even more expensive to provide for and maintain. Horses were alternatively were used in the Nauvoo Legion for the cavalrymen (Givens 1990).

Lemuel Redd was a convert to the church when he was young, and he and his family came to Nauvoo in the 1840s when he was just younger than ten years old. In 1850, he and his family made the trek to Utah to join the rest of the saints (Lemuel Biography). His daughter later recorded how her father butchered the hogs and cured the meat. Though this was while in Utah, I imagine that these methods did not differ much to how the process was conducted in Nauvoo. He would first kill the hog and then hang it up to drain the blood to help the flavor of the meat and to cool it down. Then the hog was scalded with hot water and the skin and hair were removed. Once the pig had cooled, he would butcher out the hams, shoulders, and bacon. Some of these meat cuts were taken to be prepared for a fresh meal for all those who participated in this process. The rest of the meat was salted to continue drying. Over the next several days, the pork would continue to cure, and salt was added if the meat was still giving off moisture (Carter 1950).

To summarize, pork may have been a preferred meat not only for flavor or texture, but because other animals were more valuable to them alive for other products such as cheese, feathers, and eggs. Cattle were valuable for milk or cheese, but the males were valuable for farm labor. Cows for labor were preferred over horses as they did not have draft horses, but the horses they had were built for speedy transportation and for use in the Nauvoo Legion. Wild species such as prairie chicken and turkeys were consumed, but only occasionally. The pig data represents a single pig slaughtering festivity. The slaughtered pigs may have gone to multiple families and were cured for a long-time winter storage.

The ceramics aid in understanding other aspects of Nauvoo culture. For instance, there are more flatwares than there are hollowwares indicating an emphasis on more solid foods than other liquid or jelly-like foods such as soup (Figure 6.7).

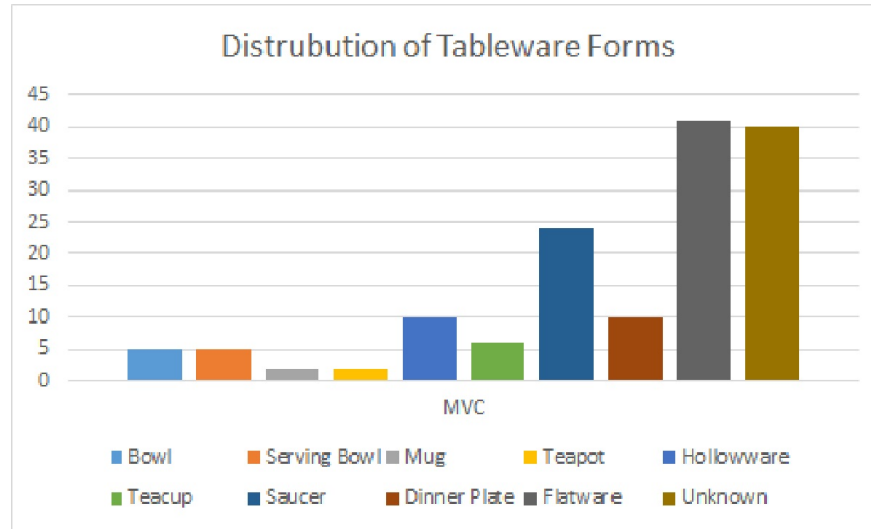


Figure 6.7: Frequency of various tableware vessel forms

The dining ceramics also align with the domestic role of women in the 19th century common among the middle and upper-middle class households (Klein 1991). In Given's book *In Old Nauvoo*, several of the duties of housewives were listed as such:

There were grates, hearths, and floors to be scrubbed and fires to be constantly tended, hot water to be carried in pitchers to the bedrooms, and slop jars and commodes to be carried out. There were candles to be made and wicks to trim and lamps to clean. There was wood or coal to be carried in from the woodshed and water to be carried in from the well (1990: 188).

It was also common that newly married women were gifted with *The House Book; or a Manual of Domestic Economy for Town and County* by Miss Eliza Leslie. This guide gave tips and advice for women in the home taking care of fires, tending the kitchen, doing laundry, making clothes and other tasks (Leslie 1840; Givens 1990).

Class standing is also evident in the ceramics as lower-middle to middle class homes. According to Miller's CC index (1991), plain and undecorated white tablewares are the cheapest to buy during this period. These undecorated whitewares make up 38 percent of the tablewares and 35 percent of the total analyzed assemblage by sherd count. If taken into account the unanalyzed sherds,

there would be a projected sherd count of over 8000 for the plain whitewares alone. If we have an approximate 50 sherds per vessel (the average for analyzed whitewares), that would be nearly 160 vessels. The overall assemblage count of what was cataloged totaled 174, putting the potential total at 334 undoubtedly indicating trash from multiple households (Figure 6.8). The plain whitewares nearly outnumber the other tablewares and utilitarian vessels combined, which were not from local manufacturers. This is very significant in that it shows that the Nauvoo Mormons strived to live within their means as generally a middle-class community.

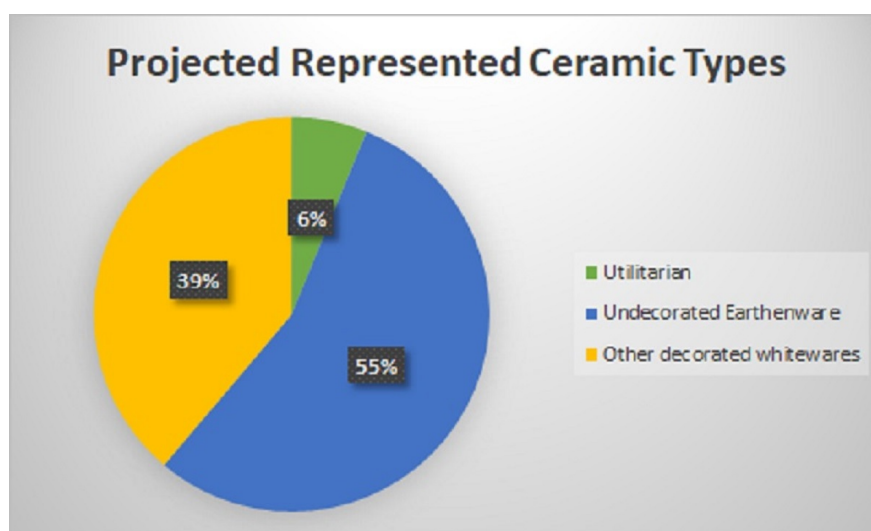


Figure 6.8: Projected data to determine overall representation of ceramic assemblage

Aside from the whitewares, other ceramic data points to somewhat frugal lifestyles. Other examples of cheaper designed vessels included the feather and shell edge designs as well as the factory-turned slipwares as they could have come from a local manufacturer in Peoria, Illinois (Miller 1991; Stelle 2001). This is also seen in the utilitarian ceramics as many of them were likely locally produced from potters in Galena (Mansberger 1994) or in Nauvoo, such as Horace Roberts (Andersen 2008). Price and value also depended on if the vessels were sold as sets or as individual pieces. Sets were often more expensive, at least up front, so it would be more common that people of the lower to middle classes would buy individual pieces as needed. There is some evidence of sets appearing in the assemblage indicating this pattern, though there could be increased evidence with a more in-depth analysis of the undecorated white earthenwares. However, it is important to

consider that Nauvoo residents may have purchased sets but were just not disposed of in the same location. People usually only throw out the broken vessels while the rest of the set may still be sitting on shelves in the home and eventually disposed of elsewhere later.

Despite the cheaper ceramics vastly outnumbering the more expensive ceramics, they still make an appearance that is worth discussion. Aside from the occasional set of decorated ceramics, there are seven vessels (four percent of all MVCs) of porcelain and eleven hand-painted whitewares (six percent of all MVCs) that are generally more expensive than the plain whitewares, but less expensive than the printed wares. During the 1840s in Illinois, transfer printed wares became somewhat more affordable and the blue transfer printed designs tended to be among the cheapest of all the colors if it was willowware (Miller 1991). As seen previously, the blue transfer printed wares were the most identified color of transfer printing making up 30 percent of the transfer designs. Twenty-eight percent of the transfer printed sherds were red, which also tended to be among the cheaper printed wares (Miller 1991). There are some ceramic sherds that appear to have been part of a tea set in the assemblage. This set was decorated in blue transfer printing of a geometric design. The forms were hard to make out, but there appears to be at least a teapot and a bowl. The third vessel in the set was identified as a flatware. Though this is a tea set, it was decorated in blue transfer print, making it elaborate yet more affordable than other sets such as porcelain or hand-painted wares (Miller 1991; Snyder 2014).

Also, printed wares make up about 34 percent of the analyzed ceramic sherds, but with the projected outcome, would only make up about 14 percent. This is important to not inflate the overall value of the assemblage. With the projected data, this would mean that 39 percent of the assemblage would consist of decorated wares and a notably low six percent with utilitarian vessels. This also accounts for a projected utilitarian sherd count of 900.

Even among the decorated vessels, about half would be decorated with cheaper designs such as the sponged or shell edge. The other half would be of more value (Miller 1991). Value is not also only placed on the decoration type, but also of the vessel form. Dinner plates are often cheaper than saucers, tea sets or bowls (Miller 1991). From the analyzed ceramics, the data points to a

middle class value of the ceramics. Referring to figure 6.5, there are more plates and unknown flatwares than of other hollowwares, not only indicating a cultural aspect of food served during meals, but also that somewhat cheaper vessels were consumed more frequently. Though, teawares and other relatively valuable dishes make a notable appearance, indicating a tea culture and leisure activities of tea parties.

To summarize, archaeological evidence indicates that the people of Nauvoo were generally living a relatively comfortable middle class existence, though some may have afforded some luxury, assuming that the assemblage largely belonged to members of the Smith family and Sidney Rigdon (who also lived on the same block), all esteemed people within the Mormon community (Givens 1990; Linn 1902). Many may have longed for some familiarity of the culture they came from, whether that be the east coast or from Europe, as there is a presence of tea culture and an effort of obtaining trendy ceramics such as the hand-painted vessels, flow blue and other transfer printed earthenwares. Either way, it seems that their aim was to live modestly and within their means while still living in a way quite like others in the 19th century Midwest and valuing cultural norms of the country during that time. The Mormons as a diaspora had their unique ways of living, such as having an emphasis on community sharing, community events, and desire for self-reliance, but continued with culture around them by sharing similar ceramic and meat consumption trends.

CHAPTER 7

Conclusion

The discussion of the artifacts leads to a certain conclusion that site N147-1 in historic Nauvoo, Illinois was primarily a dumping location after the fall of a building on this site. Many of the artifacts were recovered within the building's foundation indicating this building was no longer in use nor still standing. The presence of nearly 300 possible ceramic vessels and almost 40 different animals indicates a dumping location of multiple families in the surrounding neighborhood. The artifacts would then not only tell a story of Samuel Smith, but also of the daily lives of those living in a diaspora community in the midwest of the United States. Life was relatively hard for these people as many of them had just been violently removed from their homes in Missouri and forced to leave most of their personal belongings behind. Upon seeking refuge in Illinois, they were left with debts in Missouri and had new debts to resettle in Nauvoo. Most were poor and could not afford to repurchase what they had lost including clothes, kitchen furnishings, and other various personal belongings (Leonard 2008). Despite their struggles, Nauvoo quickly bounced back and thrived with the local economy being established and building upon a rather self-reliant community as is evident in the presence of teawares and beef and other domestic animals in the assemblage rather than a dominance of wild game species.

This meant that everyone's skills were important and useful. Everyone was able to find an occupation – or two or three – and were never left to starve. However, since nearly everyone was in similar circumstances, payment for hired workers was not often in the form of cash, but rather a fraction of the product in which they were hired to produce. For instance, if a worker were hired to work in a corn field, he would receive payment in the form of corn (Givens 1990). This, in turn, created an agrarian way of life that kept wealth mostly within the city creating a rather self-sufficient city and a thriving, wealthy, settlement despite the lack of government issued cash. This self-reliance strengthened the community solidarity among these Mormon refugees and gaining nation-wide recognition.

Knowing of these circumstances leads to an understanding as to why an analysis of the ce-

amics points to a middle class identity especially considering the number of undecorated white mixed with decorated ceramics. However, the projected total of 8000 sherds and an MVC of 160 may be overstated as many of these pieces could have easily belonged to lightly decorated wares. Regardless, there is a vast outnumbering of modest ceramics than of more elaborate ones. Miller's CC index (1991) was used to understand the overall value of the assemblage, but his analysis is not without error and may have some inaccuracies. This is why I generalized the value rather than going into any great detail of the specific values. At any rate, this assemblage represents a rather well-off group of cultural outcasts despite the popular image of Mormons in Nauvoo as being impoverished.

It is a rather interesting point to note that if this assemblage seems to represent common household items from several homes in the neighborhood, there is an intriguing lack of utilitarian vessels represented. This could be explained by the fact that these vessels are more durable and last longer than tablewares. I have also wondered if this dumping site was because of having to pick and choose what the saints brought with them on the trek to Utah, resulting in a mass dumping of things they could not bring with them. I have also wondered if the mass slaughtering event of the pigs was in preparation of the exodus as pigs could not easily be brought with them on the trail. Instead, the cured pork was easier to bring with them and also appeared on packing lists (Cheney 2012). Though a preparation for the trail is plausible with a look at the number of earthenwares and stonewares, butchering events are often a yearly activity anyway in planning for winter.

Research and study of this site is valuable, especially to the Mormon community considering ancestry and family history is of great importance to church members. This knowledge is not only valuable for an understanding of their past, but for temple work in the LDS community that involves ordinance work for the dead. With over 16 million members of the LDS church and around a quarter of a million members of the Community of Christ church spread worldwide, this evidence of daily life in Nauvoo could prove significant to those whose ancestors resided in this area for a time, emphasizing an importance of artifact analysis of all materials from the excavations as there is much to be learned from them. Nauvoo is also a significant church history

site for all churches and families involved receiving over a million visitors every tourist season. With the aim that site N147-1 will eventually be reconstructed and open to visitors, this research is important to understanding the site and influencing how visitors and family history researchers view and understand this site. It already has had impact on visitors over the last several years as the archaeological site is open to tourists and volunteers for digging.

While this research is valuable, there is still so much to be done to understand this site. The first avenue of further research is an analysis of other artifact classes such as the nails and other metal artifacts, container glass, personal items, and window glass. While my research gave insight into the lifestyle of the neighborhood, these other artifacts could assist in understanding what building may have stood before it became a dump. My historical research provided a strong base and background alluding to some kind of cellar or storeroom, but the specifics can only be determined via analysis of the construction material. This study would help in the plans for reconstruction. Another avenue for future research could be an additional excavation in a different location on the same lot that may have been a house or other farm building. Test units have already uncovered some foundation stones, but a full excavation could serve useful in the bigger narrative of this site. Additionally, further study and comparison of this site's data with other Nauvoo sites could contribute (or challenge) the community narrative as posed in this thesis.

Mormon church history is thoroughly researched and written about, but surprisingly little is known about the details of the livelihoods of individual members or daily life within the community of the church. Rather emphasis is placed on their involvement with church matters and activity in temple work. The smaller narratives as explored in this thesis bring to life the personalities and little-known details of the society and beloved ancestors. Not only do these narratives enrich the history of these distant relatives but also contribute to United States history as a whole. The saints greatly impacted this history by being the fastest growing church of its time and venturing outside the country's borders to settle the Salt Lake valley in Utah as pioneers.

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Appendix A: Ceramics Tables

Type	Sherd Count	% Total
Redware	125	2.1
Yellowware	148	2.4
Stoneware	155	2.6
White Earthenware	5394	88.8
Ironstone	21	0.4
Porcelain	62	1
Pearlware	126	2.1
Creamware	16	.3
Unknown	31	0.6
<i>Total</i>	<i>6078</i>	<i>100</i>

Table 7.1: Sherd distribution of ware types

Form	MVC	% Total
Bowl	5	3
Serving Bowl	5	3
Mug	2	1
Teapot	2	1
Hollowware	10	7
Teacup	6	4
Saucer	24	17
Dinner Plate	10	7
Flatware	41	28
Unknown	40	28
<i>Total</i>	<i>145</i>	<i>100</i>

Table 7.2: MVC distribution of Tableware Forms

Form	MVC	% Total
Bottle	1	3
Crock	1	3
Jar	9	31
Jug	2	7
Hollowware	16	55
<i>Total</i>	<i>29</i>	<i>100</i>

Table 7.3: MVC distribution of utilitarian vessel types

Decoration	Sherd Count	% Total Assemblage
Sponged	193	1
Red Transfer	562	4
Blue Transfer	770	5
Brown Transfer	131	1
Green Transfer	92	1
Purple Transfer	299	2
Black Transfer	85	1
Painted	265	2
Flow Blue	291	2
Decalomania	38	0.3
Annular/Slip	207	1
Annular/Painted	37	0.3
Feather/Shell Edge	138	1
Undecorated	8000	56
Unknown	405	3
<i>Total</i>	<i>11513</i>	<i>81</i>

Table 7.4: Estimated outcome including all undecorated white earthenwares

Appendix B: Ceramic Figures

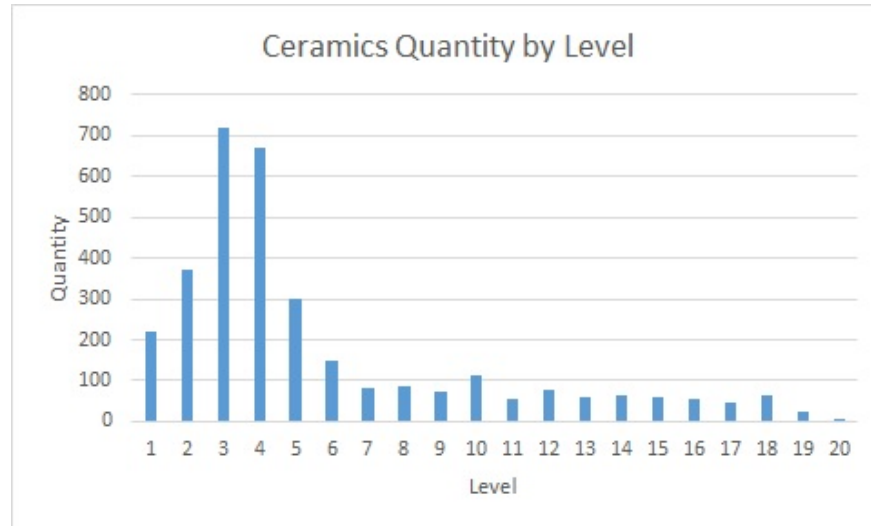


Figure 7.1: Ceramics sherd distribution by level

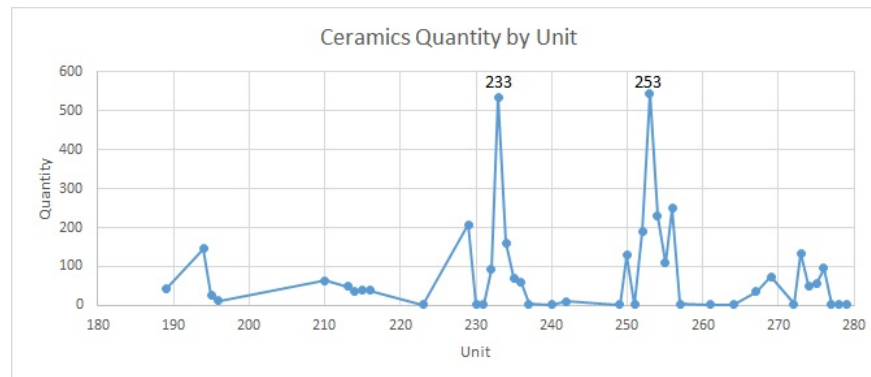


Figure 7.2: Ceramic sherd distribution by unit

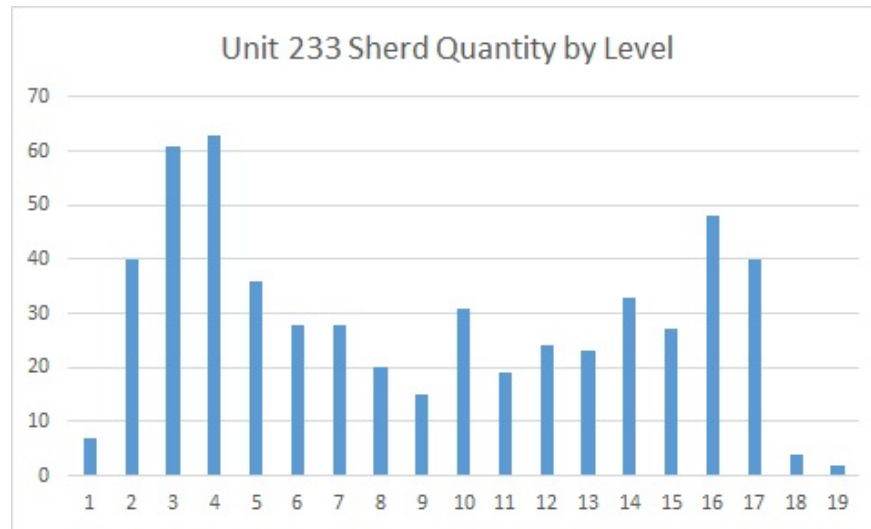


Figure 7.3: Unit 233 ceramic sherd distribution by level

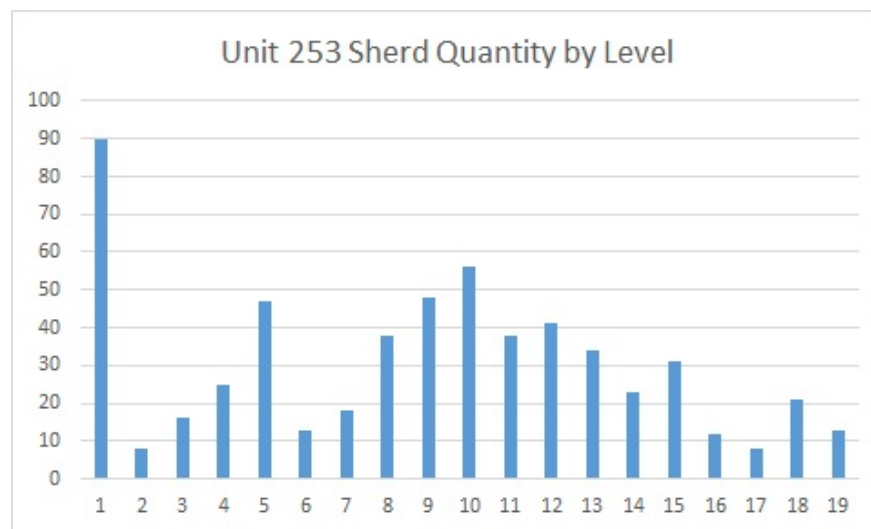


Figure 7.4: Unit 253 ceramic sherd distribution by level

Appendix C: Faunal Tables

Element	NISP	Weight (g)
Atlas	1	61.7
Axis	1	14.4
Cervical Vertebra	6	78.7
Cranium	1	5.4
Tooth	6	16.2
Innominate	8	6
Lumbar Vertebra	6	55.8
Rib	19	271.3
Sacrum	2	25.6
Scapula	4	213.3
Thoracic Vertebra	6	68.4
Humerus	4	178.1
Radius	2	121.7
Ulna	3	99.5
Femur	10	238.3
Patella	1	28.3
Tibia	5	464.4
Radial Carpal	1	19.8
Ulnar Carpal	1	9.6
Unidentified Metacarpal	2	160.2
Astragalus	2	86.7
Calcaneous	4	205.7
Central and 4th Tarsal	1	35.8
Lateral Malleolus	1	11.9
First Phalange	1	18.1
Unidentified Epiphysis	1	6.1
Unidentified Vertebra	8	77.8
Unidentified Long Bone	21	245
Unidentifiable	30	170.9
<i>Total</i>	<i>158</i>	<i>3384.1</i>

Table 7.5: Element Distribution: Cow and Large Mammal

Element	NISP	Weight (g)
Atlas	2	29.2
Axis	2	15.6
Cervical Vertebra	4	24.5
Cranium	266	1069.7
Mandible with Teeth	26	1152.7
Mandible without Teeth	26	172.9
Maxilla with teeth	15	592.3
Maxilla without teeth	2	7.2
Tooth	168	59
Caudal Vertebra	2	7.6
Innominate	2	48.4
Lumber Vertebra	5	15.5
Rib	67	214.2
Scapula	7	32.9
Thoracic Vertebra	4	25
Humerus	6	98.7
Radius	9	90
Ulna	8	62.1
Metacarpal 3	3	10.4
Metacarpal 4	5	38.3
Metacarpal 5	4	6.4
Radial Carpal	2	3
4th Carpal	1	3.2
2nd Carpal	1	0.6
Intermedial Carpal	2	5.7
Central Carpal	1	4.5
2nd and 3rd Carpal	2	2.8
Ulnar Carpal	1	2.8
Metacarpal 2	3	5.6
Femur	4	20.3
Tibia	5	97
Fibula	2	8.7
Tarsal 2	1	0.6
Metatarsal 3	4	39.4
Metatarsal 4	3	19.9
Metatarsal 5	2	1.7
Patella	1	3.2

Astragalus	4	27.6
Calcaneus	8	66.1
Central Tarsal	1	4.3
1st Phalange	14	34.5
2nd Phalange	7	11.7
3rd Phalange	4	7.7
Unid. Epiphysis	5	27.3
Unid. Metapodial	3	10
Unid. Carpal	1	1.2
Unid. Tarsal	1	0.6
Unid. Long Bone	61	166.5
Unid. Phalange	12	15.3
Unidentified	156	194.2
<i>Total</i>	<i>945</i>	<i>4770.5</i>

Table 7.6: Element Distribution: Pig and Medium Mammal

Element	NISP	Weight (g)
Axis	1	0.1
Cervical Vertebra	20	6.7
Cranium	3	7.4
Beak	3	0.4
Caudal Vertebra	1	0.1
Coracoid	42	31.3
Furculum	16	4.2
Innominate	21	12.1
Rib	37	6.2
Sacrum	14	11.1
Scapula	30	13.4
Sternum	38	14.7
Bird Wing Phalanx 1	9	1.8
Bird Wing Phalanx 2	2	0.2
Bird Wing Unid. Phalanx	1	0.1
Carpometacarpus	29	15.4
Humerus	51	78.7
Radius	41	12.5
Ulna	33	29.1
Femur	36	46.5
Tibia	4	3.6
Fibula	11	6.4
Tarsometatarsus	22	18.8
Tibiotarsus	36	46.6
1st Phalange	1	0.2
Unid. Epiphysis	1	0.4
Unid. Long Bone	192	66.7
Unid. Vertebra	33	11.5
Unidentified	119	16.8
<i>Total</i>	<i>847</i>	<i>463</i>

Table 7.7: Element Distribution: Avian

Element	NISP	Weight (g)	Biomass (kg)
Head and Neck	15	502.7	7.1
Axial	37	144.2	2.31
Forelimb	13	201.7	3.12
Forefeet	1	10.3	0.21
Hindlimb	2	62.9	1.1
Hindfeet	6	41.7	0.76
Toes	4	8	0.17
Unidentified	44	131.8	2.12
<i>Total</i>	<i>122</i>	<i>1103.3</i>	<i>16.89</i>

Table 7.8: Butchered Element Distribution: Pig and Medium Mammal

Appendix D: Faunal Figures

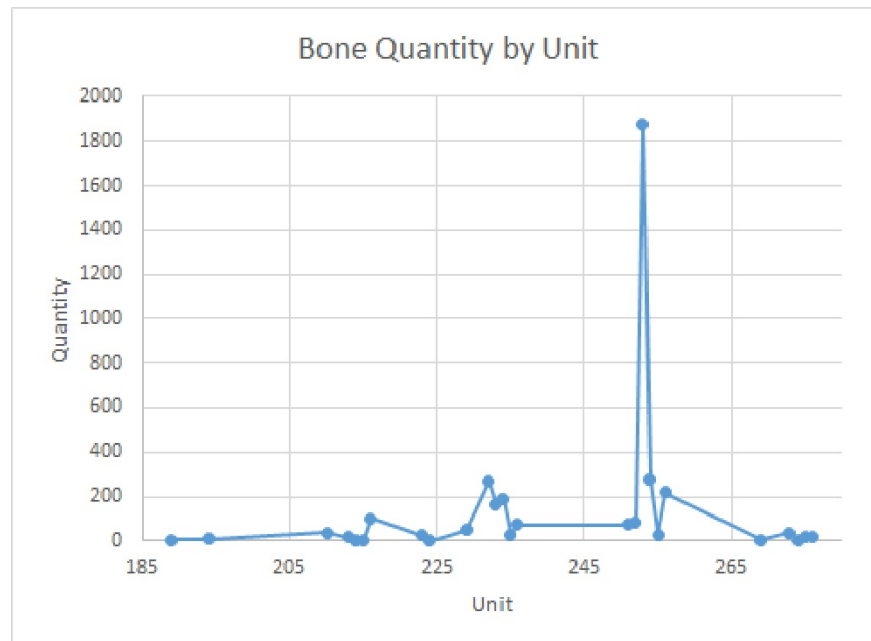


Figure 7.5: Bone Quantity by Unit

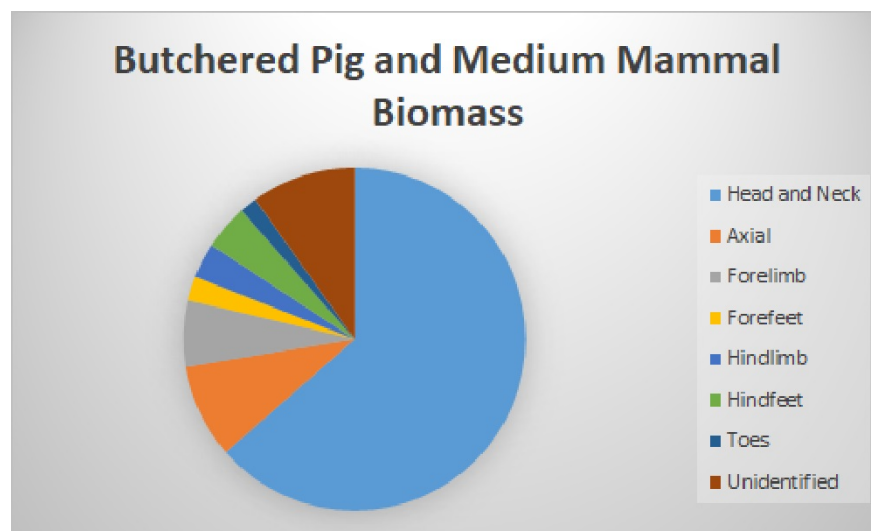


Figure 7.6: Butchered Pig Biomass

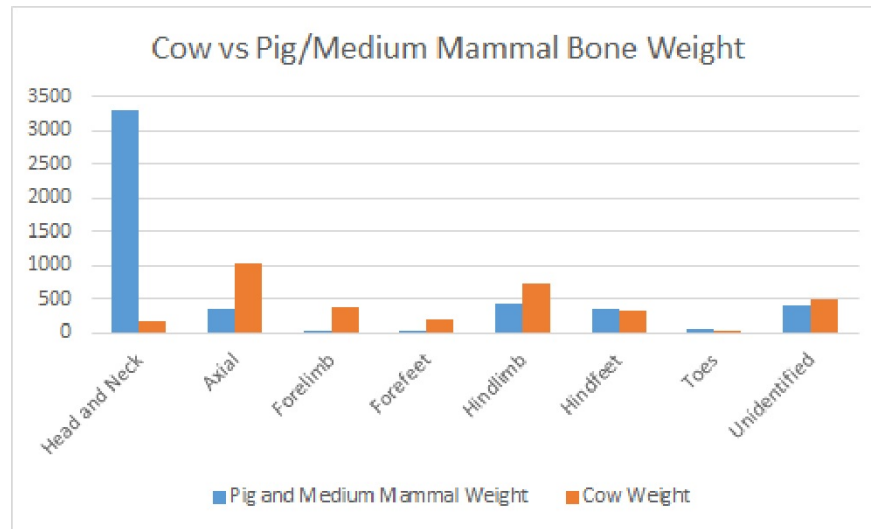


Figure 7.7: Cow vs. Pig Bone Weight

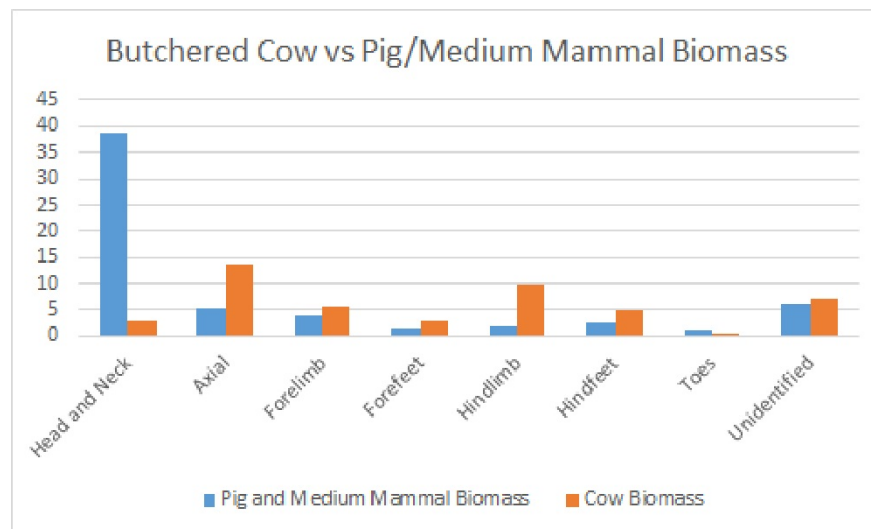


Figure 7.8: Butchered Cow vs. Pig Biomass

Appendix E: Site Formation and Additional Photographs



Figure 7.9: Photo of foundation facing south. Photo by author.



Figure 7.10: Fully excavated structure, 2019. Photo by Shane Baker.

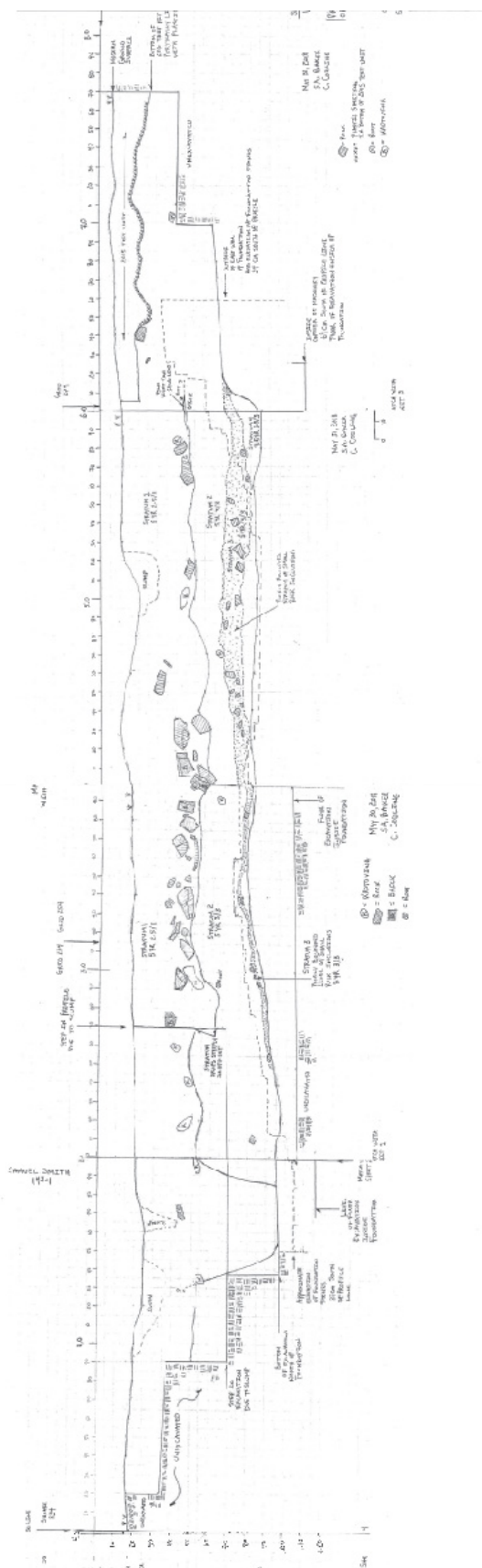


Figure 7.11