ENCOUNTERING THE SHAKERS OF THE NORTH FAMILY LOT, UNION VILLAGE, OHIO

Tracing Prosperity and Adversity— A Social History of the North Family Lot

VOLUME 3 OF A 4-VOLUME MONOGRAPH SERIES

Submitted by
Hardlines Design Company
4608 Indianola Avenue
Columbus, Ohio 43214

Submitted to
Ohio Department of Transportation
Office of Environmental Services
1980 West Broad Street
Columbus, Ohio 43223

January 30, 2009

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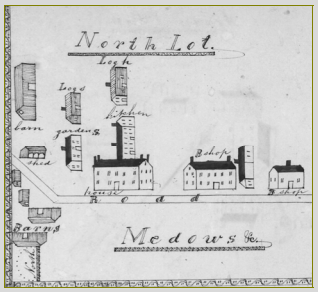

Volume 1: A Corner of Wisdom's Paradise — The North Family Lot Archaeological Project
Volume 2: A Clean and Lively Appearance — Landscape and Architecture of the North Family Lot
Volume 3: Tracing Prosperity and Adversity — A Social History of the North Family Lot
Volume 4: Simplicity Comes in All Forms — The Shaker Ceramic Industries of Union Village

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ABSTRACT

This volume is the third in a four-part monograph series on the archaeological excavations and archival research undertaken at the North Family Lot of Union Village, the hub of Western Shakerism in the nineteenth century, located in Turtle Creek Township, Warren County, Ohio. This series is the result of a joint effort between the Ohio Department of Transportation–Office of Environmental Services (ODOT-OES), the Ohio Historic Preservation Office (OHPO), and Hardlines Design Company (HDC). A curve on State Route 741, which passes through the former location of Union Village, was slated for realignment; as designed, the realignment passed through the front portion of the North Family Lot. HDC was contracted in October of 2004 to perform a geophysical survey at the site and in March of 2005 to perform a Phase III data recovery, which included intensive archival research and archaeological excavation within the area affected by the curve realignment. This excavation uncovered the remains of several Shaker buildings and evidence for landscape use and modifications by the Shakers.

This volume focuses on the social and economic history of the North Family Lot and how that history illuminates the culture of Shakers at Union Village as a whole. We present a detailed history of the North Family Lot, using the data from archaeological excavations and archival research to reconstruct details of the population demographics of the lot, the Shaker diet and use of animals, and the craft and agricultural industries that helped support the lot. The two appendices present detailed population tables and a comprehensive analysis of the faunal remains that we recovered from Shaker contexts at the North Family Lot.

VOLUME DESCRIPTIONS

Volume 1: ***A Corner of Wisdom's Paradise—The North Family Lot Archaeological Project***
This volume presents an overview of the project—its goals, methods, and a summary of its results—and suggests future avenues for research at Union Village.

Volume 2: ***A Clean and Lively Appearance—Landscape and Architecture of the North Family Lot***
This volume gives an overview of the historical development of the landscape of the North Family Lot, focusing on the four-acre location of the residential core that was subject to geophysical survey and archaeological excavations.

Volume 3: ***Tracing Prosperity and Adversity—A Social History of the North Family Lot***
This volume focuses on the social and economic history of the North Family Lot and how that history illuminates the culture of Shakers at Union Village as a whole.

Volume 4: ***Simplicity Comes in All Forms—The Shaker Ceramic Industries of Union Village***
This volume discusses the Union Village ceramic industry by examining the Union Village Pottery, concentrating on four specific ceramic products: redware pottery, smoking pipe bowls, drainpipes, and bricks, with a special emphasis on the first two items.

ACKNOWLEDGMENTS

This volume would not have been possible without the assistance of the following people. The 2005 field crew consisted of Steve Martin, April Boyer, Terry Glaze, Johnny Hendrix, Brooke Shouse, Rory Krupp, Katy Mollerud, Krista Wagner, Andy Muskopf, Don Stone, Marsha Pataky, Jay Baril, Vivian Honsinger, Elizabeth Seay, Pat Roach, Seweryn Kosmala, Epie Pius, Sarah McIntyre, Nicole Osswald, Erin Meekhof, Tracy Pattelena, and Ben Stewart. The 2004 geophysical survey crew included Steve Martin and Johnny Hendrix of Hardlines Design Company (HDC) and Duane Simpson and Ryan Peterson of AMEC Earth & Environmental, Inc. Roy A. Hampton III and Rory Krupp performed most of the archival research for this project. Anne B. Lee provided logistical support. Susan Maughlin lent her expertise in editing technical documents to this monograph series. The staff of ODOT District 8 provided immense support in the field, from handling media inquiries to acquiring heavy machinery and aiding in the excavation.

Finally, we greatly appreciate the assistance of interested researchers who have focused on the Shakers, without whom this document would be far less informative: the members of the Western Shaker Study Group, Mary Lue Warner of Otterbein Homes, Cheryl Bauer, Dr. Kim McBride, David Starbuck, Jerry Grant of the Shaker Museum and Library, and Shirley Ray, Director of the Warren County Historical Society Museum.

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CHAPTER 1. INTRODUCTION

Although the lives of the Shakers centered on their religion, their day-to-day experiences were defined by their work. The social activities of Shaker communities are intertwined with the economic ones, providing a rich ground to explore ideas about how communal societies operate, the role of the individual in egalitarian societies, and the economics of the communal lifestyle. The main focus of much research into Shaker lives has been the Shaker village at New Lebanon, New York, especially the Church family, because of the sheer volume of preserved data from that family. Research on Western communities has not been as prolific, although interest in the Western communities is rising. The publication of *Wisdom's Paradise: The Forgotten Shakers of Union Village* in 2004 by Cheryl Bauer and Robert Portman marks a milestone in Ohio Shaker research; it is the most visible and widely accessible study to date on Union Village, the hub of the Western Shaker communities. The subtitle of the book—*The Forgotten Shakers of Union Village*—speaks to the previous lack of publication and specific research into the Shakers of Ohio.

A new focus on Western Shaker studies is a welcome addition to the body of work that has already been accumulated on the Eastern Shakers. Studies that incorporate archaeological data with historical research on the Shakers are uncommon, but increasing. Starbuck's work at Canterbury Village in New Hampshire (2004) and McBride's work at Pleasant Hill in Kentucky (1995) stand out as examples of the value of archaeological excavation as a method of inquiry into Shaker culture. This volume attempts to use data recovered from excavations performed at the North Family Lot of Union Village, Ohio, combined with information gleaned from archival research, to examine the social and economic lives of one family lot that was located at the hub of Shaker occupation in the nineteenth-century west.

The study of the physical representations of human behavior, commonly referred to as "material culture," is especially useful when conducting research on the Shakers (whose formal name was "the United Society of Believers in Christ's Second Appearance"), as they were deeply concerned with order in both their behavior and physical appearances; the material culture they left behind not only reflects their desire to maintain this "ideal" Shaker behavior but also documents their lapses from it. The codified rules of behavior in the Shaker Millennial Laws, issued in 1821 and revised in 1841 and 1845, are an example of Shaker ideals of behavior that we can examine through the evidence of material culture. Exhortations to keep trash out of dooryards, for example, indicate that trash was not always neatly disposed of in buried rubbish pits, and evidence of this disorderly behavior is visible in the archaeological record. Other behaviors visible in the archaeological record include craft activities (represented by waste products, broken tools, and unfinished products) and diet (represented by the remains of butchered animal bones and the plant remains found in soil samples).

This volume examines the history of the North Family Lot as revealed through primary-source documents such as diaries, journals, letters, and reminisces that were authored by

Shakers; and secondary sources that include scholarly examinations and popular accounts that focused on Shaker life. We used data from the archaeological excavations at the North Family Lot to supplement the archival information, and in some cases, this data serves as the primary source of information on certain aspects of Shaker life at the North Family Lot.

In this volume, the history of the North Family Lot is presented first, focusing on the social development of the lot. The physical development of the lot is not examined in detail here; for this information, readers are directed to volume 2 of this series, *A Clean and Lively Appearance—Landscape and Architecture of the North Family Lot*, which discusses the Shaker use of architecture and landscape to define their environment. Details of Shaker life at the North Family Lot are discussed in Chapter 3, which describes the demographics of the North Family Lot and looks at the Shaker diet there, based on information from archaeological data and secondary sources. This chapter also shows how archaeological evidence can shed light on local adherence to Shaker values: by examining the rubbish disposal patterns of the North Family Lot Shakers, we can see how closely these patterns conform to the Shaker rules about the treatment of waste. Chapter 4 looks at some of the craft industries practiced at the North Family Lot, including the production of clothing and fabric, bone buttons, brooms, and medicinal extracts. Ceramic production at the North Family Lot is discussed separately in volume 4 of this series, *Simplicity Comes in All Forms—The Shaker Ceramic Industries of Union Village, Ohio.*

CHAPTER 2. THE SOCIAL DEVELOPMENT OF THE NORTH FAMILY LOT

Introduction

Union Village was founded in 1805 in Warren County, Ohio (Figure 1), during a mission by five Shakers to investigate the Western religious revival movements in Kentucky and Tennessee. The five Shakers included John Meacham, Issachar Bates, and Benjamin Seth Youngs, three elders from the central Shaker ministry in New Lebanon, New York, and Richard McNemar and Malcolm Worley, new converts to the faith. Union Village quickly grew into a sizable settlement with hundreds of members. The village was structured into a series of families, groups of about 50 to 120 people who lived and worked together, and each family had a physical location, known as a "lot," which included a communal house, and (in most cases) shops, farm buildings, and farmland. The families were often subgroups of larger divisions known as "orders," such as the First Order or the Gathering Order.

Figure 1. Location of Union Village, Warren County, Ohio

The North Family Lot (see Figure 2), the subject of this study, was one of ten family locations that existed at Union Village during the nineteenth century; it was established as a Gathering Order satellite family in 1815 and ceased to exist as a separate social and economic entity at Union Village in 1906. The following discussion covers the role of this property in the social and economic history of Union Village, and touches on the relationship of the lot's occupants to the outside world. Table 1 presents a timeline of significant events at Union Village, with emphasis on the North Family Lot.

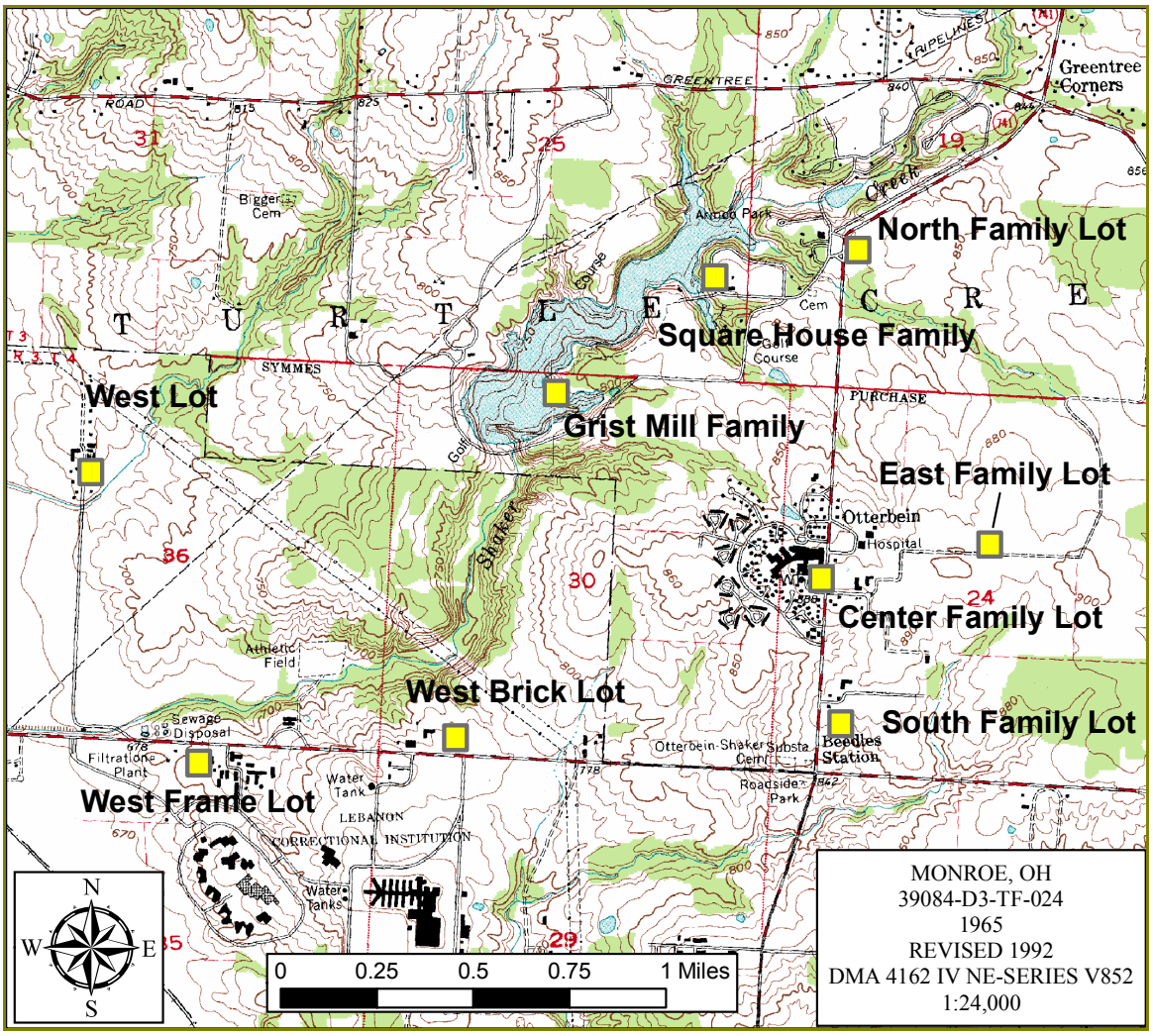


Figure 2. Location of family lots at Union Village
(The North Family Lot is located in the upper right. The North House Family was closely aligned with the Center Family and was located immediately north of the Center Family Lot, and is not shown separately here.)

Table 1. Timeline of significant events at Union Village

1805	Shaker missionaries arrive; Union Village is founded
1808	Meeting house built
1810	Center Family house built
1812	South Family established; first church covenant signed
1813	West Frame Family established
1814	Grist Mill Family established
1815	North Family Lot established
1816	East House Family formally established
1818	New meeting house built; church covenant renewed
1820	Square House Family established
1823	Brick Communal House built at North Family Lot
1824	North House Family established
1826	Brick shop buildings built at North Family Lot
1828	Schism within Young Believers; central Gathering Order family relocated to North Family Lot; Young Believers relocated to West Family Lot
1829	New church covenant signed
1835	Major flood wipes out Shaker mills
1836	Union Village families reorganized to reflect central Eastern ministry organization; Second family established at North Family Lot; East Family Lot and West Family Lot abandoned; Grist Mill Family breaks up, and mill is leased to non-Shaker miller
1837	Era of Manifestations begins in the Eastern communities
1838	Square House Lot abandoned
1840	Era of Manifestations begins at Union Village
1849	End of Era of Manifestations
1850	Union Village Pottery ceases operations
1854	Construction of Sisters' Shop, the last brick building constructed at Union Village
1890	South House closes
1906	Last member of North Family Lot leaves for Center Family; lot occupied by tenant farmer
1912	Union Village sold to United Brethren
1917	North Family Lot occupied by Otterbein Homes pensioners
1965	Last building at North Family Lot is demolished
2005	Archaeological excavations at North Family Lot

The North Family Lot was founded in 1815 to serve as an offshoot of the Gathering Order. It housed new Shaker converts known as "Young Believers," a term that refers to the converts' relatively short time in the faith, rather than to the age of the converts. The tenure of this satellite group forms the first phase in the social history of the North Family Lot. The second phase extended from 1828 to 1835, when the North Family Lot was the home of the central Gathering Order, a group that was in charge of taking in new converts and acclimating them to their new life as Shakers while they discharged their obligations to the outside world, such as paying off debts and disbursing personal property. While the rank and file of the Gathering Order were new Shakers, the core of the North Family Lot consisted of experienced Shakers. The third phase was from 1836 to 1906, when the North Family Lot was home to the Second Family, a group of more experienced Shakers who were second in status to the village's prestigious First Family, which included the central leadership of the village.

Union Village History and Social Structure, Before the Founding of the North Family, 1805–1815

The three Shaker missionaries who came to southwestern Ohio in 1805 found a religious revival in southern Ohio and Kentucky centered on the New Lights, a breakaway group from the Presbyterian Church. These missionaries—John Meacham, Issachar Bates, and Benjamin Seth Youngs—arrived in Warren County on March 22, 1805, attracted by this New Light religious activity. They resided with Malcolm Worley, a well-educated local settler (Stein 1992:58). Influenced by conversations with the Shaker brothers, Worley converted to Shakerism on March 27, 1805 (Bauer and Portman 2004:20–21).

Worley's minister was New Light leader Richard McNemar. Shocked at first by Worley's conversion, McNemar realized his own religious philosophy and teachings had much in common with Shaker beliefs and practices. McNemar's fervent evangelical preaching often provoked emotional responses at revivals, including trembling, fainting, trances, swaying, and other unusual body movements similar to those seen at Shaker meetings. The Shaker missionaries interpreted such actions as manifestations of a religious revival that had been predicted by their founder, Ann Lee, before her death in 1784. After some consideration, McNemar converted to Shakerism on April 24, 1805. McNemar's family connections and community leadership were an important factor in establishing a Shaker settlement in Warren County, as several members of both his family and his congregation also converted.

Meacham, Youngs, Bates, Worley, and McNemar formed the nucleus of the nascent Warren County Shaker community, and the settlement was centered on the Worley and McNemar farms (later the locations of the Center and East families, respectively). Lucy Wright, the Shaker leader at New Lebanon, New York, provided financial aid, allowing them to purchase additional land. A 40-foot-by-30-foot, timber-frame house was constructed to supplement the accommodations in Worley's house, which measured 18 feet by 20 feet, and became the first Elders' house, which would later become the home of the village's South Family (Hampton 1900). In July of 1805, David Darrow, Daniel Mosely, and Solomon King arrived from the east to assist with the founding of the new community and moved into a log house purchased from a local farmer, Timothy Sewell.

In May 1806, three men and six women from Shaker communities in the Eastern states traveled to Union Village to help establish the settlement: Peter Pease, Samuel Turner, Constant Mosely, John Wright, Lucy Smith, Martha Sanford, Prudence Farrington, Molly Goodrich, Ruth Darrow, and Ruth Farrington (Bauer and Portman 2004:32). The Eastern Shakers complained of the hard frontier living, but their burdens were soon lessened by the new converts joining the community, including additional New Light ministers who influenced their congregations to join (Stein 1992:60–61). Often entire families joined, and some families became known for having dedicated Shakers who became community leaders, such as the Darrows, Babbits,[*] Boyds, and Parkhursts.

[*] Note that in Shaker records, the name "Babbit" also has the alternate spelling of "Babbitt." We will use the name used for the individual as it appears in Shaker records, since it is unclear which spelling is correct, or if there were two different families with similar last names.

The community grew quickly. Other improvements to the village infrastructure built around this time included a dam and sawmill on Dick's Creek, a smith shop, and other service buildings (Stein 1992:61–62). The Shakers helped build the roads that ran through the village, including a new road at the south end of the village that led toward Lebanon. A cemetery was established in 1807 after one of the Eastern Shakers, Prudence Farrington, died. A public road was opened through the village by the Warren County Trustees in 1807, and an additional sawmill was built in 1808. Two new families were established that focused on manufacturing: the Square House Family, which operated a tanyard and milling equipment, including a saw mill and a fulling mill used to clean raw wool; and the Mill Family, which operated a second saw mill, a carding mill, and an oil mill. A meeting house was built in 1808, and a school was founded. A wood-frame dwelling that would later become part of the Center Lot was constructed in 1810, later converted into an office and renovated in the 1890s into a Victorian-style structure. (This building is still used today by Otterbein Homes and is known as Marble Hall.) In 1812, the Shakers completed a meeting house and a dwelling for Young Believers, which probably referred to the East Family Lot. The Young Believers group was made up of newly converted Shakers who were from the "west" (at that time, the Ohio frontier) and would later become the Gathering Order. This event marks the first separation of experienced Shakers from new converts at Union Village. The first brick kilns were fired at Union Village in 1812 as well.

The new Union Village community prospered, but not without incident. The Shaker lifestyle emphasized communal property and celibacy, and some local residents were suspicious of the new religion and perpetrated vandalism and threats. In a few cases, even small-scale mob violence was involved. Some of the violence was fanned by apostates, individuals who had joined the Shaker community but left because they were dissatisfied with the lifestyle and strict codes of conduct. Shakers refused to engage in military service, which led to tension with local authorities, and at times the sheriff would assess fines or even arrest male Shakers who refused to join militias. But, despite these disruptions, Union Village flourished (Stein 1992:61–62).

The social structure of Union Village was based on a system of "orders" and "families" that was common to all Shaker communities. An order was part of a three-tiered division of the Shakers that was based on spiritual progress and level of commitment (First Order, Second Order, and Gathering Order). Shaker families were socioeconomic groups that were formed within the orders for the purposes of communal work and living. The system had been developed in the late eighteenth century under the leadership of Joseph Meacham at New Lebanon (Bauer and Portman 2004:63) and originally consisted only of the First Order and Second Order. The First Order contained the Church family with three sub groups, while the Second Order included the less experienced Shakers; also known as the "Order of Families," the Second Order was not a single communal group but several different farms with individual families that had converted to the Shaker faith.

To accommodate converts to the faith, the Gospel Order that dictated the hierarchy of Shaker communities was modified in 1799 to establish a special order for new members, at first called the Order of Young Believers, and then later known as the Gathering Order (this name change for the group paralleled later name changes at Union Village) (Paterwic 1991). The

Gathering Order was first set up at the New Lebanon North Family to receive adult converts, and satellite families of the Gathering Order were established to accommodate the numerous new converts who needed time to sever their ties with the outside world (tasks such as resolving debts, property issues, family concerns, and so on). Having satellite offshoots of the main Gathering Order allowed the new members to be close to the main community of Shakers while they took care of their remaining worldly obligations. There was a regular shifting of members among the various satellite families and from the Gathering Order as a whole into the other Orders, according to the needs of the families and the skills and dedication of the individuals. Thus, very few members stayed longer than ten years; they either moved to a different order or left the community. Because of the generally short duration of membership in the Gathering Order, no large-scale industries or crafts were associated with this order at New Lebanon. The situation at Union Village was similar.

There were three Shaker orders at Union Village through the 1820s: First, Second, and Gathering. Some Center Family members signed the first Union Village covenant in 1812, and the first official Center Family elders were consecrated at that time as well (Bauer and Portman 2004:90). Bauer and Portman state that members of the Senior (or First) Order, such as those in the Center Family, had signed a legally binding covenant committing them to Shaker life. Signing the covenant obliged a member to donate their personal property to the village, and covenanted Shakers were expected to work for the common good. In contrast, members of the Junior (or Second) Order sometimes retained some personal property, although they were still expected to conform to the Shaker family system and to work for the good of the community. The third tier consisted of the members of the Gathering Order, who were basically Shaker trainees, newer to the community and still retaining some property and ties to the outside world. However, several documents examined for this study indicate that some Gathering Order members at Union Village were covenant signers and had therefore relinquished their personal property. These covenanted members were likely "core" members of the Gathering Order, committed Shakers who guided the spiritual training of the newer converts and helped acclimate them to communal life.

The families that made up the Shaker social structure were often segregated along the lines of orders, with the most prestigious families composed entirely of Senior Order members, while the least prestigious families contained members of the Gathering Order. Stein writes of a distinction made at Union Village between Young Believers, who were converts from the Ohio frontier, and "old believers," who were men and women from the Eastern Shaker communities (Stein 1992:62). During the first decades of Union Village's existence, there was an effort to segregate the Young Believers from the Eastern Shakers who had traveled to the west to spread the Shaker faith. However, by the 1820s, the meaning of the term "Young Believers" had changed and no longer denoted all Western Shakers; instead, the term had come to mean those members who were either young people or who had been in the Shaker life for a shorter time.

All Shaker communities were divided into families, groups typically numbering anywhere from 25 to 120 individuals. In the first half of the nineteenth century, most Western Shaker villages had at least two families, and each family had its own plot of land, usually with a residential building, a washhouse, shops, outbuildings, and farm buildings. Families lived in

communal houses, worked together, and worshipped together. Most families had shop and agricultural facilities, where family members worked to produce food and products for their use, or to be sold or bartered either to other Shakers or to the outside world. Work was often segregated by sex, especially before the Civil War. Most of the men worked in farming and crafts, while the women kept house, cooked, and worked in industries and crafts related to textiles.

Some aspects of life in Shaker villages were controlled at the family level, while other decisions were made by the Central Ministry at the village, a small group of high-ranking elders who usually resided at the center of the settlement. In general, the Central Ministry decided on overall rules for behavior, major cash expenditures, and acquiring and selling land. However, individual families were responsible for their own economies, including the maintaining the property under their purview and providing for their members. Four elders governed each family: a male and a female senior (first) elder/eldress, and a male and a female junior (second) elder/eldress. Regular members were required to confess to their elders on a regular basis, especially in the stricter pre–Civil War years. Confession was segregated; men were permitted to confess only to male elders, and women only to female elders. Elders had to be literate, educated, and understand Shaker beliefs and regulations, since they were in charge of monitoring the spiritual progress in their households.

While elders governed on spiritual matters, trustees (also known as deacons) were responsible for supervising temporal (worldly) activities in the family. Two of each gender oversaw the daily activities of their interests. Male trustees were the intermediaries between the Shaker community and the outside world, and they handled the business aspects of each family, including paying debts and selling products. Gradually, a separation of powers developed between the elders and trustees after some elders were involved in a series of embezzlements early in Shaker history. An elder could not overrule a temporal decision made by a trustee; only the elders at New Lebanon had that degree of leverage.

In terms of political power, the Ministry retained primacy at Union Village. Many day-to-day decisions were made by elders, trustees, and deacons at each individual family; however, the Ministry oversaw all spiritual and societal matters at Union Village, and other families were obliged to submit to its authority. Such was the case at all Shaker settlements. As the Western Shaker bishopric, the Union Village Ministry also had authority over the Western Shaker settlements in Ohio, Indiana, and Kentucky.

However, Stein reports that while Shaker spiritual and political hierarchy was standardized by the New Lebanon Central Ministry, there was no central economic plan for the Shaker villages. While the Central Ministry had some oversight, local trustees had leeway to use their own initiative to establish an economic base, using the human and natural resources at their disposal (Stein 1992:134). As a result, each Shaker village had some ability to tailor its economic structure according to the wishes of the elders, deacons, and trustees. Trustees therefore had a strong influence on guiding the economic activities of each family or group of families.

In general, the economic structure of Union Village seems to have gone through several stages. Some families were part of the economic structure of the Center Family, while other families had more financial independence. Periodical reorganizations of the village in the 1820s, 1830s, and 1860s further refined these arrangements.

The North Family Lot as a Gathering Order Satellite Family, 1815–1828

Union Village prospered in the years after the War of 1812, even though the young community endured attacks from disgruntled former members, as well as fines and arrests when the young Shaker men refused to engage in military service. The North Family Lot was founded at Union Village in 1815 during a major population expansion at Union Village, which peaked in 1818 at 634 members. By the end of the 1820s, Union Village had expanded into a community of 10 communal houses, with numerous shops, agricultural facilities, and several mills, as depicted on the 1829 *Map of Union Village* (Figure 3; enlargement of the North Family lot is shown in Figure 4). The 1815–1828 era was the time when Union Village had the largest number of active family lots, which during this period, were associated with the three orders: the First Order, the Second Order, and the Gathering Order.

The First Order formed the nucleus of the village and consisted of the central ministry at the Church family, with the North House family and the South Family Lot as satellite family lots. The members who were considered the most advanced in the Shaker faith belonged to the First Order. The Second Order was composed of devoted Shakers who were still somewhat new to the faith but had committed to the community and shed most, if not all, of their worldly obligations. Many skilled tradesmen were included in the Second Order, including the millers and a group of potters. The Second Order consisted of the West Frame Lot, the West Brick Lot, the Grist Mill Family, and the Square House Family. The Gathering Order, as previously described, served as the entry point to the community for new converts. The central family for the Gathering Order was the East Family Lot, with satellite groups of Young Believers at the North Family Lot and West Lot Family. The core members of the Gathering Order were experienced Shakers whose duties focused on educating the new converts about the Shaker religion, lifestyle, and duties as a member.

The three orders at Union Village were spatially arranged on the landscape so that the First Order was buffered on three sides from the outside world, with the Gathering Order arranged to the north and east of the First Order lots, and the Second Order lots placed to the west. The southern approach to the village was the only physical border shared by the First Order with the outside world.

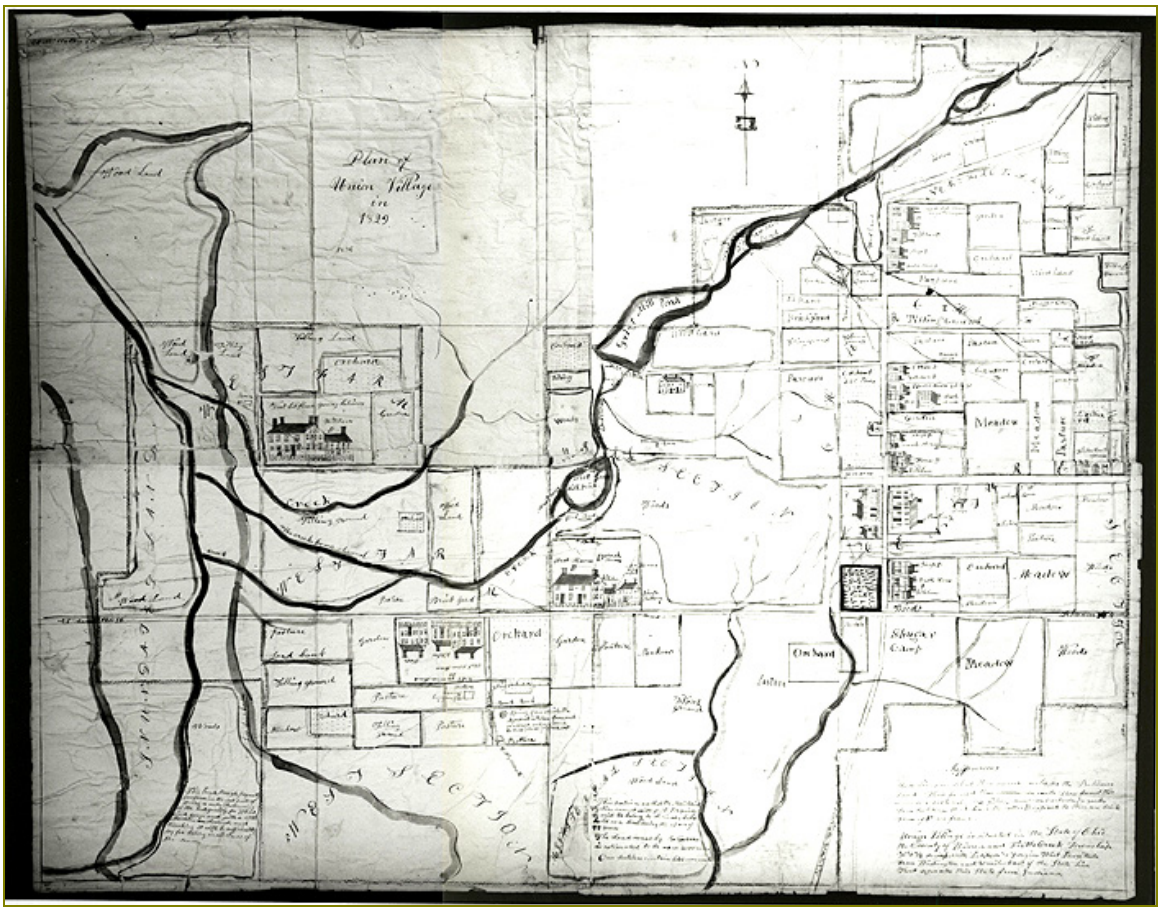


Figure 3. 1829 *Map of Union Village*
North Family Lot located at top right. (Union Village Mapmaker 1829)

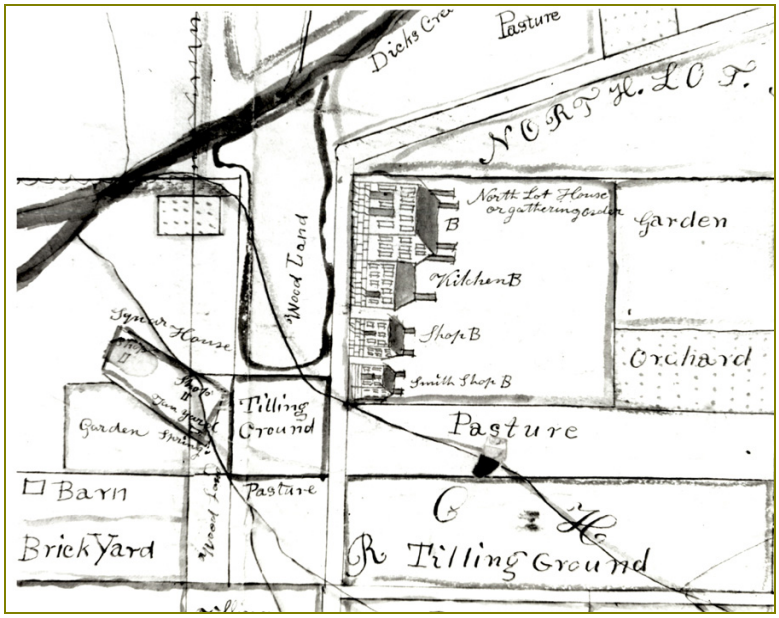


Figure 4. Detail of 1829 *Map of Union Village*, showing the North Family Lot
(Union Village Mapmaker 1829)

During the 1812–1830 era, industries and agriculture were firmly established at Union Village. By about 1820, Union Village was involved in manufacturing wool, hats, and blankets, breeding livestock, and making cheese, with production aimed at providing products for external markets as well as providing for the internal needs of Union Village. The village also gained fame during this time for developing the Poland China breed of hog, known for being among the largest of swine breeds and one of the first developed in the United States (Bauer and Portman 2004:119). They also made furniture there, but output remained small, and Union Village was not well known as a center of Shaker furniture production (Bauer and Portman 2004:120).

The first occupants of the North Family Lot were members of the Gathering Order that was founded in 1814. Stein states that a separate dwelling was established in 1812 for the Young Believers, housing 56 believers, and 32 more resided in another dwelling. Note that although the terms "Young Believers" and "Gathering Order" were often used interchangeably at Union Village during the 1830s and later, there were other times when the terms appeared to preserve a distinction, such as in 1828 and 1836 when the community relocated family groups. In referring to the early history of the North Family Lot, Union Village Shaker and diarist Daniel Miller seems to use the terms interchangeably.

The land that would eventually become the North Family Lot was acquired as part of an early effort to obtain a larger contiguous mass of land for Union Village. Union Village trustees purchased the land that would become the North Family Lot from Isaac Morris in September 1808 (Clarke 1805–1900:276). Little documentation has been found about the social and economic role of the North Family Lot in its first years. One reference to its origins is an 1835 account of Union Village buildings in which diarist Daniel Miller gives an account of the family's founding. The Gathering Order apparently increased so rapidly at that time that they established separate families of Young Believers as a way to handle all the new converts. Miller noted that the North Family Lot was founded in 1815 in a frame house built by Isaac Morris (Miller 1835:377).

Another source with information on the origins of the North Family Lot is a partial, variant version of an anonymous North Family Lot diary, which has an expanded introductory history of the North Family Lot. In this source, the terms "Young Believers" and "Gathering Order" are used interchangeably, often within the same sentence (Union Village Diarist 1836–1841:327). Like Miller, the anonymous diarist also noted that the North Family Lot was occupied by the Young Believers because of the rapid population growth at Union Village:

> In consequence of the extension of the society by new numbers there was another order or branch formed principally of young believers at what was termed the North Lot. They entered into the covenant relation and executed their first covenant in 1824. (Union Village Diarist 1836–1841:327)

Shortly after Union Village was founded, David Darrow, one of the first Eastern Shakers to help settle Union Village, was established as a leader, and his death in 1825 was a significant event there. Due to the high population and large amount of religious writings published during Darrow's tenure, some consider that period to be the high point of Union Village history (Bauer and Portman 2004:122–123). Upon his death, Darrow was succeeded by Solomon King (who accompanied Darrow to Union Village in 1805) and Rachel Johnson,

another Eastern Shaker. This introduction of Eastern leaders upset some Union Village Shakers, especially Richard McNemar and many of the other Western Shakers (Bauer and Portman 2004:125), who preferred to have the leadership promoted from within their community.

Little detailed information is available on the activities of the North Family Lot prior to the 1830s, but one source discusses the North Family Lot at the end of the occupation by the first group of Young Believers. An 1829 letter to Shaker Elder Matthew Houston at the Center Family from an unknown North Family Lot resident referred to the 1828 dissolution of the North Family Lot of Young Believers, which at the time numbered 140 (Union Village Correspondent 1829). This event was the result of a major schism in Union Village society, with numerous members of the Young Believers leaving the faith to follow the teachings of Abijah Alley, an apostate Shaker. The schism was the end result of a period of dispute beginning around 1823 that resulted in the gradual depopulation of the North Lot during the years leading up to 1828. An early dispute involved the third edition of the *Testimonies of the Second Coming of Jesus Christ,* the book that presented the Shaker faith to the outside world. After the second edition of the *Testimonies* was published, the Young Believers crafted their own testimonies with the intent to include them in subsequent editions. However, the Young Believers had promulgated supposedly subversive ideas concerning the Immaculate Conception and man's fall from grace in the Garden of Eden, and David Darrow forbade adding any such testimonies to the text, stating that they were against the teachings of Shaker co-founder Ann Lee (Mother Ann). Darrow rejected their ideas as against the basic tenets of Shakerism, as well as on the more practical notion that the *Testimonies* would have to be completely reprinted. These additional testimonies were then destroyed under Darrow's orders, and he forbade that any personal testimonies be recorded unless specifically ordered by the ministry elders (Union Village Compiler ca. 1900:113).

Abijah Alley moved to the North Lot in 1826 to serve as an elder but was removed in 1828 because of mismanagement, in both temporal and theological affairs (McNemar 1835:288). The ministry felt that the North Lot was too large and complicated for Alley to manage, and they replaced him with James Darrow, a nephew of David Darrow. Alley felt slighted and fought back in an unorthodox manner, accusing various elders of spiritual infractions such as "soul murder." Alley claimed to have had visions where he saw David Spinning and an eldress named Malinda (probably Malinda Watts) kill the souls of other members (McNemar 1835:288–289; Worley ca. 1829:416–417).

The ministry held trials with the elders as judges and jury. Spinning was quickly acquitted of all the spiritual crimes, and Alley was moved to the West Lot, where he continued to agitate the community with his beliefs. Richard McNemar attempted to mediate the next dispute with Alley over a period of months. Alley claimed that through a visionary at the West Lot, William Hewitt, he had obtained the knowledge that man was totally free and without the burden of law. It followed, according to Alley, that without law, there could be no sin. This had obvious ramifications for the elders as Alley spread his own personal gospel of total freedom throughout the Young Believers (McNemar 1835:288). He had a number of enthusiastic acolytes (Some, such as Jonathon Gandy, were expelled for their licentious behavior.) Alley convinced many others to leave the community voluntarily when he

conceptualized his own community, but he never started it. These events effectively stripped the North Lot of many Young Believers. In addition, a general rebellion among the Young Believers occurred, attributed by Oliver Hampton to their coming of age, as explained in his history of Union Village:

> A large number of the younger portion of the Society were now of age, and they began to look at their present, what might be their future condition, were driven hither and thither by the winds of speculation, and tempests and storms of scortitory pleasure, and the siren call of sexual enjoyment….Perhaps this year 1829 was as disastrous and painful a year from the causes just enumerated, as any in the annals of many years in the experience of the Church (Hampton 1900: 405).

Abijah Alley eventually left Union Village of his own volition, but not before spreading considerable discord and costing the community a number of promising prospects (Hampton 1900:405–407).

According to the 1829 letter to Houston, a number of industries were established to support the Young Believers of the Gathering Order at the North Family Lot, but too many were expensive, labor-intensive businesses that the current number of members could not maintain. The Young Believers had started a tan shop, blacksmith shop, and wagon shop, and the family also operated a shoe shop, tailor shop, and weave shop. However, the start-up costs proved expensive, the operations required a lot of capital, and raw materials were at times scarce for certain industries; there was a shortage of leather for the tanyard and of iron for the wheelwright, and shortages of broomcorn hampered broom production. The weaving, which produced carpets, was perpetually behind. The blacksmith shop was hobbled and then closed, after three blacksmiths left. The construction of the brick Brothers Shop and the large brick kitchen drew labor away from the cottage industries; the construction of the kitchen alone was responsible for $2,500 in debt for materials, even though its design was scaled back during construction from an original plan that would have incurred a debt of $5,000.

According to the descriptions in the letter, the Young Believers who resided at the North Family Lot before 1828 consisted of many unskilled people who had problems being self-sufficient and managing their internal economic situation. One difficulty with any Gathering Order group was maintaining an industry, as the skilled members would either eventually move on to the Second or First Orders at the village, or leave the community altogether after they acquired a marketable skill. The susceptibility of Young Believers to leave the faith was in part due to their disillusionment with the strict Shaker lifestyle, and in part due to the influence of apostates who preached a variant of Shaker teachings. Such was the case with the reorganization of the Gathering Order in 1828, when numerous members apostatized and left the community. After the schism, only 28 members of the Young Believers were left at the North Family Lot.

The North Family Lot as the Central Gathering Order Family, 1828–1835

In the wake of the political instability at the village that occurred in the years after David Darrow's death in 1825, the 1828 village reorganization addressed the disunity by reasserting the power of the central ministry at Union Village and by extension, New Lebanon. The reorganization was proposed on July 31, 1828 (Union Village Compiler ca. 1900:2–163). Union Village Shaker Abigail Clarke wrote in her diary about the reorganization on August 11, 1828:

> The society is preparing for a general move. The South Family is to break up and disperse into the different departments of the Church. The buildings to be occupied by a family from the West Branch, their buildings and premises to be occupied by a select family from among the young orders. The East Family, or Gathering Order, to be removed to the North Lot and the East buildings to be occupied by a collected family, mainly children. (Clarke 1805–1900:38).

On August 12, Clarke again wrote about the reorganization:

> The general move effected. Thus, the Church and West Sec. Branch were consolidated into one interest together with the family of Young Believers that took possession of what was called the West frame building—having but one trusteeship and one interest in all temporalities. This was duly agreed upon by all the leading authorities of the Society previously. (Clarke 1805–1900:38).

According to Clarke's account, a group of the remaining Young Believers was moved from the North Family Lot to the West Frame House, while the 28 members of the Gathering Order were moved from the East House to the North Family Lot to join the 28 Young Believers who remained at the lot. The West houses and the Center (Church) Family were combined into a single interest, or economic unit. A ca. 1900 history of Union Village (compiled by an anonymous Shaker) also recorded that many residents of the North Family Lot were transferred to the West Frame House, while the Gathering Order was moved from the East House. This source also noted that the new occupants of the West Frame House were to be made up of "a family selected from among the younger believers" (Union Village Compiler ca. 1900:404).

The ca. 1900 history of Union Village also outlined the new economic structure that resulted from the 1828 village reorganization, stating that after the reorganization, the village had several distinct financial interests, organized around family lots. Although this source does not specify, the Center Family and its satellite families composed the first interest. The second interest was composed of the West Frame, West Brick, and East House lots. These lots apparently included some of the Young Believers referred to by Clarke and the ca. 1900 history. The third interest was composed of Gathering Order families, specifically the North Family Lot and West Family Lot (Union Village Compiler ca. 1900).

The only detailed source we located for North Family Lot social and economic history from the late 1820s is the letter from an unknown North Family Lot individual addressed to Matthew Houston, dated April 20, 1829. The letter states that its specific purpose is to fulfill a request by Union Village Elder Matthew Houston for an account of the North Family Lot financial situation, and it primarily voices complaints about the lot's finances; some of the dissatisfaction expressed appears to be fallout from the 1828 Union Village reorganization

(Union Village Correspondent 1829:406–407). The last page of the letter is missing, and so there is no signature, but the writer identifies the location as the North Family Lot. Based on the tone of the letter and the mention of associations and meetings with other male North Family members, it appears that the person writing the letter was one of the male elders or deacons. First Elder David Spinning is mentioned in the third person in the letter, which makes Spinning less likely to be the writer, but it does not rule him out.

In the letter, the writer stated that the North Family Lot group of Young Believers formerly consisted of about 140 persons, including men, women, and children; this group was then dissolved, presumably referring to the 1828 reorganization. The letter reported that the North Family Lot under the Young Believers accumulated $2,741 in debt, but this included $782 that was owed to them and had not been paid, leaving a total of $1,959 owed. The writer also indicated that the 1828 reorganization reduced the population of the North Family Lot to 56 people; of these members, 28 were part of the original 140 Young Believers, and 28 were members of the Gathering Order from the East Family Lot. The letter complained that most of the original 140 Young Believers were no longer responsible for their share of the North Family Lot debt, and instead the debt was now shouldered by the smaller 56-person group. Money owed included inheritance payments to heirs and mercantile debts (Union Village Correspondent 1829:406–407). That the North Family Lot remained liable for some of the debts accumulated by Young Believers who no longer lived there reflects an interesting facet of the economic management in Shaker communities: Responsibility for debts was apparently assigned to the family in which they were either accrued or were first responsible for making payments, and not to the individual who may have brought the debts with them as a novice Shaker.

The letter described at length the current state of the North Family Lot shops and their viability, lamenting that start-up costs for the shops were high and increased the families' debt, and that construction of shop buildings pulled labor away from cottage industries that the family depended on for sustenance and income. Although one motive for the additional construction had been an expected increase in the number of Young Believers, the shops had been set up prematurely. The letter also mentioned that the group had rushed in to build a brick kitchen that, if it had been constructed according to the original plans, would have contributed a considerable amount of additional debt to the lot's already poor finances. With only 30 male members of working age, the current population of the North Family Lot could not hope to keep up the lot's numerous shops and extensive farmland. The letter noted too that the blacksmith shop had closed after three blacksmiths left—two eloped (separately) and one succumbed to mental illness (Union Village Correspondent 1829:406–407). Interestingly, the letter implies that most of the lot's residents at that time were men, as the population of 56 members included 30 working-age males.

The letter to Houston also chronicled a meeting between several of the North Family Lot men to address their financial problems. This meeting resulted in a plan to sell at least one set of blacksmith tools, liquidate the tannery operation, sell the Polly Manning Residence and land, and apply the money toward the debt. The letter also states that Elder David (North Family Lot First Elder David Spinning) did not give his approval for this plan.

Toward the end of the letter, the writer stated that the supply of broomcorn was out, rug production was behind schedule, and the Family was making a feeble attempt to produce window blinds for sale. The writer also noted that while it may have been considered a sacrifice for the previous occupants of the North Family Lot to give up the lot and its buildings, the debt associated with the property burdened the new residents—an indication that they perceived the system of debt responsibility as unfair. The controversy over the finances of the lot must not have been resolved immediately, since Richard McNemar's diary records that on December 26, 1829, a meeting was called to settle North Family Lot difficulties (McNemar 1835:617). It is not known how these issues were finally resolved, if indeed they ever were to the satisfaction of the Gathering Order members.

For the first half of the 1830s, several North Family Lot events and facts were recorded in Shaker diaries and histories. In 1832, Sally Sharp recorded in her diary that Elder David Spinning was released from service at the North Family Lot and moved to the Center Family (Sharp 1805–1880:190). In 1833, Matthew Houston was moved from the Brick House to the North Family Lot to take charge of the "Young Believers" (Union Village Ministry 1812–1831:671). (As the North Family Lot had been the location of the Gathering Order for five years by this time, this reference is an instance of the use of "Young Believers" and "Gathering Order" as synonyms.)

The mid-1830s was a time of high population at Union Village, even though a number of members had departed and overall numbers were down from the ca. 1818–1825 peak. The mid-1830s also brought several changes in leadership for the village. Long standing Union Village leaders Issachar Bates and Benjamin Youngs were recalled to New Lebanon in March of 1835. Solomon King and Rachel Johnson, sent to Union Village to serve as the community's leaders by the New Lebanon ministry after the death of David Darrow, proved to be ineffective leaders and were summoned back to New Lebanon in October 1835 (Bauer and Portman 2004:139). The year 1835 marked the beginning of a period of major change for the North Family Lot and Union Village as a whole. On June 9 of that year, Shaker Sally Sharp recorded in her diary that 11 inches of rain fell in less than two hours. The resulting flood did considerable damage to Union Village and was a major event in Union Village history. All three dams owned by the village were partially or completely swept away, and mill damage was estimated at $20,000 (Sharp 1805–1880:193). To add to the year's difficulties, on Sept 9, 1835, days before the Eastern elders arrived, trustee Nathan Sharp absconded with almost all of the cash and transferable financial instruments (including stocks and bonds) at Union Village.

The disruptions of the 1835 flood may have been a factor in the major reorganization of the family structure and reshuffling of facilities at Union Village in 1836, and Sharp's embezzlement would have certainly added to the sense of confusion, but the main reason for the 1836 reorganization was a directive from New Lebanon that urged the Western communities to have a family lot system in accordance with Eastern communities, as discussed in the next section. This reshuffling would have a major effect on the North Family Lot.

In summary, the short tenure of the North Family Lot as primary home of the Gathering Order appears to have begun with the lot plagued by debt, struggling cottage industries, and a fairly small population. By 1834, the population at the lot had increased, which may have

solved some of these problems. A modest expansion of physical facilities also occurred during this period, mostly involving the construction of stables and wood-frame shop buildings. As the site of the Gathering Order, the North Family Lot would have still ranked low within the social hierarchy of Union Village during this period, but its status would have been raised slightly when it became the center of the Gathering Order, instead of a satellite family of that order.

The North Family Lot as Home to the Second Family, 1836–1906

Establishment of the Second Family at the North Family Lot, 1836–1839

At the beginning of 1836, New Lebanon authorities sent a directive to the Union Village ministry that completely reorganized the social structure of Union Village. The Center or Church Family was divided into First and Second Families, and the East Family was dissolved. Families were moved to new locations as part of the reorganization (Bauer and Portman 2004:140). It was at this time that the Gathering Order was removed from the North Family Lot, and the Second Family, composed of Shakers who had previously resided at the West Brick House and West Frame Lot, moved to the North Family Lot. In return, the Gathering Order families from the North Family Lot and the West Family Lot moved to the facilities of the two western lots, abandoning the West Family Lot altogether. Diarist Abigail Clarke described the process, writing on January 5, 1836:

> Our two eastern deacons (Daniel Hawkins and Stephen Wells) strongly recommended to the ministry here a change and separation of the large interest into first and second families after the manner of the eastern societies; this recommendation induced our ministry to call a meeting in the evening, consisting of the Centre or first family eldership and the office deaconship to deliberate on the subject. On the part of this counsel it was unanimously agreed to organize Union Village after the form and manner of the church and society at New Lebanon; that is to constitute two families in the church or two interests—the first family or interest proposed largest were to occupy the three large brick dwellings (brick house south house and north house) the old frame center house … The Second Family or interest to occupy the North Lot premises and buildings in a separate interest, this family to be composed of the two families or departments of the church at the West Branch, or Section, and those buildings and premises in the future to be occupied by the two families now at the north and west lots in a separate interest, leaving the west lot vacant (Clarke 1805–1900:54).

In January 1836, an unnamed diarist wrote also that the Union Village Second Family took control of the North Family Lot, ending the North Family Lot's tenure as home of the Gathering Order (Union Village Diarist 1836–1857:368). On January 27, Abigail Clarke recorded that Eli Houston, James Darrow, Caty Boyd, and Sally Sharp were installed as Second Family elders, with William Runyan and David Parkhurst set up as Second Family trustees (Clarke 1805–1900:56). This change was one of the most significant events in the North Family Lot's history, essentially elevating the lot from its status as the lowest order of adults at the village (the Gathering Order) to the home of the Second Family, which was just below the First Family in status at Union Village.

The reorganization may have been undertaken to place Union Village under firmer control of the New Lebanon ministry, and to dissolve loyalties that certain members had to specific locations and individuals at the village. For example, the family at the East House, which was originally the Richard McNemar farmstead and at the time served as a Children's Order, was dissolved. The East House members were dispersed to other families, with portions of the physical facilities moved to other lots (including the North Family Lot, which received an ox barn, wash house, and stable). This action may have been an attempt to dilute the considerable influence that Richard McNemar, one of the original Western converts and founders of the village, held over some residents (Bauer and Portman 2004:141).

In addition to the January 1836 reorganization, other political events at Union Village that year would have far-reaching effects on the future of the village. In terms of the top elder post at Union Village, Solomon King had been recalled to the east but remained Union Village's nominal leader for about six months after he had left the village. A letter read at Union Village on February 14, 1836, announced King's resignation and named his replacement as Freegift Wells. Wells arrived from the Shaker community in Watervliet, New York, and took the reins as first elder of Union Village in April 1836 (Boyd 1805–1850:188).

Richard McNemar had been offered the top Union Village leadership position but turned it down. At the time, McNemar was heavily involved in traveling to other Western Shaker communities in Ohio and Kentucky to help out, and he wanted to continue to concentrate on that effort. The tenure of Wells was a contentious time in Union Village history; many Union Village residents were loyal to McNemar, and Wells apparently felt uneasy with this situation. Tension grew between Union Village members loyal to Richard McNemar and those loyal to Wells, and in 1836, McNemar resigned from the eldership, but was still regarded as a leader by many of the Western Shakers. His brother, Garner, and Malcolm Worley were removed from leadership positions as well.

A February 1836 list of Union Village members recorded 33 men and 43 women at the North Family Lot, for a total of 76 people. Elders were listed as Eli Houston and James Darrow, and the trustees were William Runyon and David Parkhurst. The eldresses were Caty Boyd and Betsey Murphy. Sallie Sharp was listed as a member of the Church family (Abigail Clarke's recording of Sharp's installation as a North Family Lot elder may have been an error [Clarke 1805–1900:56]). Several of the Shakers listed were individuals who would remain as long-term members of the North Family Lot, while others were former members of the Gathering Order that evidently had gained enough experience and skills as Shakers to be reassigned to the Second Family. Men and women on this 1836 list who would go on to play leadership roles at the North Family Lot in the 1840s included Aaron and Amos Babbitt, Stephen Easton, Amy Slater, and Peter Boyd (Union Village Compiler 1836:324–325). The same list contains a postscript implying that the reorganization was a cause of a recent sudden decline in membership, especially affecting the Gathering Order, which was described as reduced from 74 members to "a small remnant," so that the list compiler did not bother to tally the names of those remaining, apart from the elders (Union Village Compiler 1836:324–325).

As political tensions boiled between those Shakers backing Elder Wells and the supporters of McNemar, another important political and social event began to unfold that affected Union Village. In 1837, a religious revival began in the Eastern Shaker communities, known

variously as the Era of Manifestations, Mother's Work, or Mother Ann's Work, in honor of Shaker co-founder Ann Lee. Ordinary Shakers, starting at Watervliet, New York, with a group of girls ranging in age from 10 to 14, began to claim that they were having ecstatic spiritual experiences, which took the form of body movements, speaking in strange languages, trances, and claims of being spiritually possessed by the spirits of historical characters or dead Shaker leaders. The movement rapidly spread from the Eastern communities to the Western Shakers (Stein 1992:165–167) and, by October 1838, had taken hold in the Union Village community (Bauer and Portman 2004:145).

The Era of Manifestations led to a stronger emphasis on spirituality, and stricter community regulation. The Millennial Laws, a Shaker rulebook written by future Union Village First Elder Freegift Wells and issued in a brief format in 1821, contained the basic rules and principles for Shaker life. The Millennial Laws were expanded considerably and were re-issued in 1839, 1841, and 1845. Some of the new regulations were strict monastic rules similar to the Rule of St. Benedict and other standard monastic codes. However, because of the religious fervor of the Era of Manifestations, the new laws contained restrictive rules that banned activities ranging from consuming pork, coffee, tea, and fresh-baked bread to varnishing interior woodwork. Many Shakers also experimented with vegetarianism at this time, subscribing to the ideas of nutritional theorist Sylvester Graham. Graham held that eating meat and animal products caused health problems and excited sexual desire, an undesirable condition in the celibate Shaker communities (Stein 1992:183–184).

Support for these additional regulations and for vegetarianism was by no means universal within the Shaker communities. The added regulations created tension, and some Western Shakers resisted some of the restrictive policies, especially those concerning coffee, tea, and pork. Clashes also occurred between the vegetarian and non-vegetarian factions (Stein 1992:183–184). Some scholars maintain that the Western Shakers in general did not follow the Millennial Laws as closely as Eastern Shakers, and that life in Western communities was less disciplined and more connected to the outside world (Nicoletta and Morgan 1995:28).

Another difficulty in the Era of Manifestations was how to control spiritual experiences. Some of the lower-ranking Shakers, especially young women, probably used their claims of communication with dead Shaker leaders to gain power. The messages from Ann Lee, David Darrow, and other deceased Shakers that were allegedly spiritually channeled through ordinary Shakers often condemned policies, behaviors, and sometimes specific Shaker individuals. These experiences could be a used as powerful tool to disparage members of the group or even leadership figures, which undermined the leadership's control over the community and their spiritual authority. In response, the central New Lebanon ministry eventually discredited any visions or revelations that did not further their own goals and policies. After this policy was put in place, spiritual revelations not endorsed by the leadership were considered to be messages from evil spirits or Satan (Stein 1992:185–187).

The spiritual excesses of the Era of Manifestations, combined with the tensions between McNemar and Wells, weakened the settlement's group cohesion. Margaret O'Brien, a recent Shaker convert of the time, used claims of spiritual communications from deceased Shaker leaders to denounce Malcolm Worley, Richard McNemar, and Richard's brother Garner. In 1839, another Shaker, Randolf West, forged a letter in McNemar's handwriting that

contained malicious criticism of Wells (Bauer and Portman 2004:152). Wells expelled Worley and the two McNemar brothers from the Shaker organization, angering McNemar's friends and supporters at Union Village. After regrouping, McNemar traveled to New Lebanon, and authorities reinstated the three men into Shaker society. McNemar then returned to Union Village, but he had been weakened by the crisis. He died in 1839 (Bauer and Portman 2004:152–153).

These events clearly damaged the group unity of Union Village, and historian Marguerite Melcher wrote in the 1940s that the crisis was the beginning of a slow decline there. Melcher characterized the Wells-McNemar incidents as an underhanded attempt by a paranoid, jealous Wells to destroy McNemar and his supporters, using O'Brien, West, and the Era of Manifestations as tools of manipulation (Melcher 1940:273–274), but later writers have interpreted Wells's actions as an attempt to retain control as the legitimate Union Village leader. Recent writers have also pointed out that McNemar probably felt that he had a special authority within the community, which may have included the right to appeal Wells's decisions to the New Lebanon authorities (Bauer and Portman 2004:152–154). The struggle can also be framed in terms of a conflict between Western and Eastern Shakers, with McNemar representing the more emotional Western Shaker way, while Wells embodied the conservative discipline and more rational approach of the Eastern communities.

Eventually, some members who experienced the most extensive and fervent visions of the Era of Manifestations left Shaker society, often leaving the remaining Shakers demoralized (Stein 1992:184). Visionist Margaret O'Brien left Union Village at the time of Richard McNemar's reinstatement, and Randolph West's forgeries of letters casting McNemar in a bad light were discovered a few months later. West immediately left Union Village in disgrace, and he committed suicide several years later (Bauer and Portman 2004:153–155).

The North Family Lot Matures, 1840–1849

Political controversy continued at Union Village in the 1840s, as the North Family Lot continued its function as the home of the Second Family. Freegift Wells was removed as Union Village leader and recalled to New Lebanon in July 1843. Shaker leaders were usually removed for ineffective leadership or due to old age. Wells was not elderly at the time of his removal and was an authoritative leader, but there are several likely reasons for his removal. The reinstatement of Richard McNemar and Malcolm Worley indicates that the New Lebanon leadership disapproved of Wells's expulsion of these elderly men, who were the first Ohioans to join the Shakers. The leadership may also have been punishing Wells for losing control of the spiritual activities of the Era of Manifestations (Bauer and Portman 2004:166). Bauer and Portman characterize New Lebanon's tightening of control over the Era of Manifestations visionaries as a reaction to discord caused by the Wells-McNemar struggle (Bauer and Portman 2004:153).

Wells's tenure at Union Village also included the initiation of a major construction project. In 1842, expecting an influx of new members due to the Era of Manifestations, Wells approved the construction of a large brick dwelling at the Center Family Lot. After Wells departed, well-known Shaker diarist Andrew Houston fell from the walls of the construction

site and died. The expected increase in membership never occurred (Bauer and Portman 2004:154–155).

Wells was replaced as Union Village leader by John Martin, a Western Shaker who had been second elder at Union Village since 1838 (Bauer and Portman 2004:166). It is significant that the New Lebanon authorities did not select another Eastern leader to head Union Village after Wells was dismissed. The population at Union Village was somewhat buoyed in the late 1840s by the collapse of the Millerite sect, a religious group that mathematically calculated that Jesus Christ would return to the earth in 1843; after Christ failed to re-appear as predicted by Millerite leaders, some dispirited members joined Union Village (Bauer and Portman 2004:166–167). Also, by the late 1840s, the Era of Manifestations was clearly winding down. Many of the customs and practices developed during that era, such as outdoor worship in designated holy places, were abandoned (Stein 1992:197–198). The strict requirements of the 1845 Millennial Laws began to fade with the decline of the era, and when the leadership issued new rules in 1860, they omitted many of the 1840s-era strictures (Stein 1992:199).

The instability of the Gathering Order tenure from 1828 to 1835, as recorded in the 1829 letter to Matthew Houston and in other sources, appears to have passed by the mid-1840s. Despite the political turmoil at Union Village and the instability caused by the Era of Manifestations, the 1840s appear to have been a time of prosperity and industrial productivity for the North Family Lot. While the North Family Lot was still under the religious authority of the Union Village Ministry, the family was a largely independent entity economically. Second Family membership was at 77 people in 1841, which indicates a relatively stable population from the inception of the Second Family in 1836 (Union Village Diarist 1836–1857:382). Diary accounts indicate that the pottery, broom, yarn, seed, herb, and medicine industries were in full production. The rental of some community lands to tenant farmers in the 1840s has led some commentators to believe that the strength of Union Village cottage industries may have led to a decrease in agricultural production (Bauer and Portman 2004:172). Wool production and processing, headed by the North Family Lot women, and pipe bowl production in the North Family Lot pottery were prolific in 1842, with trustee David Parkhurst sending 7,000 tobacco pipes to the Eastern elder Daniel Hawkins in New Lebanon, New York, and 300 pounds of wool to Cincinnati (Union Village Diarist 1836–1857:377).

From 1845 to 1850, Amy Slater, an eldress at the North Family Lot, recorded daily events and work done by North Family Lot women. Slater's diary gives us a close look at the lives of North Family Lot women in the mid-to late 1840s. She reports days filled with cooking, cleaning, other housework, and work on fiber and textile-related cottage industries. Slater wrote that she and the other women made and dyed cloth, spun yarn, and cleaned and processed wool and flax (Slater 1845–1890:591–621). The sisters were also involved in picking berries and gathering flax, but otherwise did not directly participate in agricultural production.

In summary, the role of the North Family Lot in the 1840s at Union Village appears to have been an economically successful entity that was able to provide goods through farming activities and extensive craft industries for use both within the community and for sale to the outside world.

The North Family Lot in the Antebellum Era and the Civil War, 1850–1865

By the 1850s, the Shakers still had a significant number of believers, but the seeds of decline had been sown, and the trend of decreasing Shaker populations continued across all the Eastern and Western communities. Attracting new members became more difficult, especially in the prosperous decades before the Civil War, which offered increased opportunities through rapid industrialization and westward expansion. The Shakers adopted orphans in these years, but these children often did not join the society when they reached adulthood. Meanwhile, the overall Shaker membership was aging, and the number of men under the age of 60 declined sharply, shrinking the supply of able-bodied men who could work at farming or the cottage industries, or who could serve in leadership roles. The decline in male numbers accelerated through the nineteenth century, making the Shakers more dependent on hired labor (Stein 1992:242–250).

Despite this atmosphere of overall decline in Shakerism, the 1850s were a fairly good time economically for Union Village. The politics of the village calmed somewhat after the end of the Era of Manifestations and the departure of community leader Freegift Wells in the 1840s. Some industries such as cooperage (barrel making), pottery, and silk production were discontinued, but others flourished, especially broom making, seed packaging, and the production of herbs and medicines. The herbal medicine business, for which Union Village was well known throughout the Midwest, reached its peak in the 1840s and 1850s (Bauer and Portman 2004:190–191). Agricultural and livestock production thrived. Bauer and Portman characterize the decade as one of peace and prosperity at Union Village (Bauer and Portman 2004:182).

The 1850s were likewise a good period for the Second Family at the North Family Lot. The Second Family population in 1850 was high, hovering around 80 members. Economic activity was brisk, and several of the shops at the North Family Lot were remodeled for new uses, mainly related to cottage industries. The population of the Second Family, however, began be made up more and more of elderly people, and by the end of the Civil War, the family was headed toward a smaller, increasingly aged population. The use of hired hands at Union Village increased, with outsiders employed to help construct buildings, run the mills, and assist in other labor-intensive activities.

The start of the Civil War was disruptive to Union Village. Bauer and Portman state that the strains and conflict of the war quickened the rate of attrition within the general population of Shakers. An 1861 fire destroyed the Center Family's North House and several Center Lot buildings associated with the herbal medicine and broom-making businesses (Bauer and Portman 2004:202–204). Fear of attack by Confederate General John Hunt Morgan during his July 1863 foray into southern Ohio provoked widespread fear, but the invasion never reached Union Village (Bauer and Portman 2004:212). And, more and more long-time members of the community were succumbing to old age and illness, removing positive role models from the community. All these factors most likely contributed to a sense of malaise that might have encouraged apostasy among demoralized members.

The North Family Lot in the Post-Civil War Era, 1865–1890

By the end of the Civil War, Union Village was confronting the major problem plaguing Shaker settlements throughout the late nineteenth century: declining population. Members were aging and dying, while fewer new members were joining to take the place of those who died or left. By 1870, the overall population of Union Village had slipped to 232, and it would continue to decline through the remainder of the nineteenth century. In 1870, Shaker William Redmon reported the initiation of economic-related austerity measures that prohibited fires in shop buildings before breakfast, required all private money to be turned over to the trustees, and banned hunting and trapping for private purposes (Redmon 1863–1879:596).

The North Family Lot reflected all of these trends. Industry at the lot declined in the 1860s, and the population of the North Family Lot gradually diminished from 1865 through 1890. It does not appear that the status of the North Family Lot within Union Village declined, however; the family simply experienced the same economic and population decline that all of the families at Union Village were undergoing in the last decades of the nineteenth century.

Various events harmed the Shaker industries though, eventually leading to the decline of the cottage industries at Union Village by the late 1870s. In 1869, Union Village First Elder Amos Parkhurst shut down the village yarn mill since it could no longer compete with mechanized mills (Bauer and Portman 2004:220). Other industries also suffered from increased competition, including the garden seed industry. The decline in Shaker industries also correlates to the population decline at Union Village and the aging of the core group of members, many of whom were now too old to work in the various industries. A smaller population also meant a smaller pool from which to select leaders, and poor leadership may have also eroded Shaker industries. Some industrial activities, such as the sawmill and the operation of the knitting machines, were the traditional purview of the Gathering Orders, which would have been most affected by the decline in population: a lack of new recruits to replenish the members who were promoted to First or Second families may have led to a more rapid decline than that of the families associated with the First and Second Orders.

By 1863, the Center Family woolen factory was operated by hired hands—a telling indication of the decline in productive members of the community (Union Village Compiler ca. 1900). It is quite possible that the aging, long-term Shakers of the First Family did not want to work in a nineteenth-century textile factory and instead preferred the pastoral and convivial atmosphere that stock-farming and decorative needlework (also known as fancy-work) provided. However, elders in the east, such as Isaac Youngs, looked with disfavor on the practice of hired hands, as they hindered the "spiritual travel" of the community" (Stein 1992:200). The diminishing returns of a cottage textile industry in the face of mounting industrialization and community stricture may have made shuttering the wool factory in 1869 an easy decision to make.

Poor leadership at Union Village may have also contributed to the decline of industries. For example, John Martin was appointed Union Village leader in 1843, replacing the controversial Freegift Wells. Martin was a Western Shaker who had been Union Village's second elder. Bauer and Portman report that Martin was removed as first elder in 1859 because of

"profound eccentricities" (Bauer and Portman 2004:194). Martin was reassigned as a First Order trustee, a position of great importance, until 1873, when he was replaced by Peter Boyd. Bauer and Portman represent the early Martin era as a peaceful and prosperous time (Bauer and Portman 2004:169). However, later statements suggest that Martin was retained as a leader in spite of growing incompetence. From March to May 1873, a diarist protested that Martin failed to properly represent the community in business transactions. The diarist also associated Martin's tenure with such events as the failure of the sawmill and woolen factory, the sporadic operation of the flour mill, and the sale of expensive machinery at discount prices. Martin had traveled extensively through the Midwest trading and selling cattle, but he had sold most of the cattle on credit and experienced considerable difficulty collecting on the debts. He resigned as trustee on May 1, 1873 (Redmon 1863–1879:649–658).

Aaron Babbitt, who had succeeded Martin as first elder in 1859, was removed from that position in 1868 by the Eastern leadership after his fiscal mismanagement was discovered—Babbitt had borrowed $20,000 at nine percent interest, mainly to purchase land. This loan was paid off with money borrowed from other Shaker families and communities, including the Second Family.

Leadership changes were also underway at the North Family Lot in 1868 (Sharp 1805–1880:302). Amos Parkhurst was moved to the First Family (Redmon 1863–1879:577). His replacement, Philip Antes, died on April 21, 1869 (Sharp 1805–1880:302), and Aaron Babbitt and Isaac Beales followed Antes in the leadership positions (Sharp 1805–1880:303).

By 1870, the late nineteenth-century decline of Union Village was underway at the North Family Lot. The 1870 census, while difficult to interpret because of recording irregularities, paints a picture of shrinking population and aging members. By the mid-1870s, several diarists at Union Village began fretting over the declining numbers, although some expressed confidence that a revival soon would increase the number of believers (Center Family Spiritual Journal 1874–1881:641). Discussions of industries and crafts at the North Family Lot nearly ceased in diaries of the time, and the population of the family began to drop rapidly.

Additional information on the North Family Lot during the postbellum period is available from the 1880 census, which clearly divides Union Village by family, labeling each, allowing us to form a precise picture of the membership of the North Family Lot. Sanford Russell, age 62, was first elder of the North Family Lot, with John Stechison, 69, serving as second elder. Diary evidence indicates that Russell was installed as first elder in July 1880, and moved to the North Family from the Center Family at that time (Sharp 1805–1880:318). Amy Slater, 75, still served as the first eldress, with Ann Price, 65, serving as second eldress. Slater had been a first eldress since 1856 (Union Village Diarist 1836–1857:527). Amos Babbitt, 74, was listed as "farm deacon," which evidently meant he was serving as trustee, a somewhat surprising role after his failure as the community's leader. The data indicates that the North Family Lot had 45 members in 1880, but this figure includes three men recorded as employees who were hired farm help that lived at the site but were not Shaker believers. The population of 42 Shakers represents a decrease in population of more than 50 percent from the 1860 numbers, illustrating well the rapidly declining population common in most Shaker communities in the last quarter of the nineteenth century.

The post–Civil War period was also one of liberalization for the Shakers. Most of the strictures of the 1845 issue of the Millennial Laws were slowly abandoned, and over time, society members had more contact with the outside world through travel and the increasing presence of hired help. Meanwhile, items that had once been shunned by the believers as objects of worldly decadence, such as floral wallpaper, jewelry, and cologne, became commonplace (Stein 1992:288–291). In preparation for his book *The Communistic Societies of the United States*, social historian Charles Nordhoff visited Union Village in 1874. Many of his observations about life at the village reflect the liberalization of Shaker society. He related that a Union Village elder told him that Shakers would always be required to confess their sins and maintain celibacy, but that efforts were being made to loosen other strictures in the interest of retaining the younger members. Young Shakers were allowed more access to books and music than in previous years, and one young female Shaker was borrowing books from a local public library and reading novels, activities that were strictly forbidden in the past (Nordhoff 1875:202–203).

During this period, business meetings were held in which members could express concerns and make suggestions for change. Several Shaker women expressed boredom with the repetitive nature of their daily work and requested that the leadership explore giving them work other than the usual cooking, cleaning, and mending that took up much of the day (Nordhoff 1875:203). One Shaker woman even pointed out that the financial position of Union Village might be better if women were in charge (Redmon 1863–1879:700). Some Shakers also wanted to deviate from uniform dress codes, indicated by an 1875 proposal to allow beards, and several proposals to drop requirements for tight, plain hairstyles and caps for women. Eventually, both of these proposals were adopted (Bauer and Portman 2004:225–226).

Nordhoff also reported that the population of the village at the time of his visit in 1874 was 215, with 95 males and 120 women. Forty-eight of the residents were under the age of 21, with 20 boys and 28 girls (Nordhoff 1875:200). Despite the large number of minors, Nordhoff reported that Union Village at this time refused to take in children unless they were part of a family and with adults that were joining the Shakers (Nordhoff 1875:202). Nordhoff also reported that approximately 30 hired hands were employed by the various Union Village families, and about 40 tenant farmers worked Shaker lands (Nordhoff 1875:201). The main industries that produced goods for sale outside of the community were brooms, seeds, herbs, and medicines. The tailor, shoe, blacksmith, and wagon shops were focused on the needs of the Union Village community rather than on products they could sell to outsiders. Production of steel (cutlery), leather, wool yarn, and clay hollowware and pipes were noted by Nordhoff as industries that were no longer in operation (Nordhoff 1875:201).

In addition to declining population and lack of new converts, other events caused problems in Union Village in the 1880s and 1890s. A bank collapse in Lebanon in 1877 cost the society $7,000 (Sharp 1805–1880:316), and a tornado in 1886 damaged the village and the surrounding community. Although the building damage was confined to the Center Family, all of Union Village sustained damage to trees and fences (Clarke [compiler] 1886–1891:249–250) A doctor who resided in the village was also discovered to be an arsonist, after he started a fire that destroyed the South Family dwelling in 1890; the disaster caused the breakup of the South Family, who dispersed to other family lots rather than incur the expense of rebuilding their house.

At Union Village, changes during the last decades of the nineteenth century reflected the liberalization common throughout Shakerism. Members reached out to the outside world to gain more converts. Union Village Center Family schoolmaster Oliver Hampton spoke to the public, extolling Shaker beliefs and the Shaker life. Although the efforts rarely convinced outsiders to join, the lectures were good for Shaker public relations. The village started its own scientific and progressive association called the Lyceum, encouraging the study of the arts and sciences. Association activities included small theatrical pieces and poetry recitations that took place in the meeting rooms in the communal dwellings (Bauer and Portman 2004:222–223).

As the census data from 1890 was destroyed, we do not have that information for the North Family from that year. Diary and historical entries for the end of the postbellum period are scarce; other than the 1880 census data for the North Family Lot, we found little information for the 1880–1890 period.

The North Family Lot in the Last Years and the Closing of Union Village, 1890-1912

Populations continued to decline in all Shaker settlements at the end of the nineteenth century, and smaller communities were closing their doors and sending their members to larger settlements elsewhere. Poor leadership continued to be a problem, with Union Village suffering extensive monetary losses in the late nineteenth century due to the incompetence and questionable business practices of Trustee and First Elder Joseph Slingerland. An Easterner who was brought in to take charge of Union Village in 1890, Slingerland spearheaded an expensive and unsuccessful attempt to found a Shaker colony in Georgia, and spent considerable funds remodeling the office of the Union Village trustees in a lavish Victorian style (Stein 1992:280–283). Slingerland's business dealings lost thousands of dollars, and he was forcibly removed from his post in 1902 (Bauer and Portman 2004:250–251). Money was frittered away at many Shaker communities on questionable investment schemes by incompetent or dishonest trustees, but the sale of closed village locations such as North Union, Watervliet, and Whitewater, Ohio, also brought much needed funds into the society, which by then had high expenses for the care of its aged members (Stein 1992:283–285).

By the turn of the century, the traditional forms of Shaker worship had largely ceased to exist. The old customs of Shaker songs, dances, and marches were dropped in favor of more conventional worship. MacLean reported that exercises during meetings had ended by 1880 in Union Village because the inhabitants were too elderly to participate (MacLean 1907:102). Moreover, standard Protestant hymns began to supplant traditional Shaker songs. Some Shaker sisters even began attending local Protestant church services instead of holding their own worship meetings.

Modern conveniences and technologies were also accepted. Shakers were interested in the technological developments of the day and quickly embraced automobiles, radios, and electric lights (Stein 1992:288–291). This adoption of new technological innovations was a continuation of Shaker interest in labor-saving devices, but it differed in that it included

forms of technology that in previous years would have been considered frivolous and detrimental to Shaker life, such as the radio and gramophone.

Little documentation of the last years of the North Family Lot was found as part of this study. North Family Lot eldress Amy Slater discontinued her diary in 1855, but took it up again in July 1890 for a brief period just before her death. In the 1890 portion of her diary, Slater mentions primarily household duties such as cleaning and cooking. She also tells of the installation of an engine from the South House that was used to do washing. It is likely that the North Family Lot had acquired this washing machine when the South Family broke up after the South House was destroyed by arson. Slater indicates that an "engineer" that worked at Union Village was on-site installing equipment at Union Village, and that the engineer sometimes helped with operating the laundry machine (Slater 1845–1890:623–625); she does not indicate whether the engineer was a Shaker or a hired hand.

Otherwise, Slater mentions going to a local fair at the end of August, and that nine members of the North Family Lot attended Sabbath services on August 24, 1890, possibly indicating that the North Family Lot had only nine members at that time (Slater 1845–1890:627–630). Slater's diary ends on September 28, 1890, which is recorded in Union Village records as the date of her death. The only reference Slater made to craft industry in the 1890 portion of the diary is a comment on September 9, 1890, that "it is raining so they can do nothing at their broomcorn" (Slater 1845–1890:630), showing that the village was still growing broomcorn then and probably still manufacturing brooms.

The post-1890 era at Union Village was one of aging members and activities abandoned for the lack of able-bodied members to sustain them. The 1900 federal census reflects the advanced age of most of the Union Village residents at the turn of the century, with the majority of the 43 remaining Shakers over 60 years old. Joseph Slingerland, James Hennessey, Elizabeth Downing, and Mary Gass were listed as trustees. Most of the members were listed as being at school or as housekeepers. Professions were listed for some of the men, and these included a postmaster, shoemaker, laborer, painter, machinist, engineer, carpenter, and three gardeners. All non-trustees were identified as members on the census data, and none were identified as hired hands. The census data was not divided up by family, as the entire Union Village population was listed as a single household.

The advanced age of Union Village members was also reflected in diary accounts written several years later. In 1906, Andrew Barrett, a Shaker diarist, reported that the members had to go to nearby Lebanon, Ohio, to buy bread, since the remaining Shaker sisters were too infirm to make it (Barrett 1902–1910:297). The obituary of Clymena Miner states that she was appointed eldress at the North Family Lot in 1900. It also states that she moved to the Center Family when the North Family lot was closed in 1906 (*Western Star* 1916). By 1910, the population at Union Village shrank to 24, and the average age was 76. The elderly Shakers remained active however, as they took trips to Florida, and in 1911 they bought an automobile for personal use by the members (Bauer and Portman 2004:252–253).

However active the remaining Shakers were, the end was in sight for Union Village as a Shaker community. In 1909, Elder Joseph Hennessey had started negotiating with the United Brethren Church for sale of the village. In October 1912, Union Village was sold to the

church for $325,000, with a stipulation that remaining Union Village members could reside in the Trustee's Office for the next 10 years. Seventeen Shakers sisters remained at Union Village when it closed. The men moved away, but 10 younger Shaker sisters were sent from Canterbury, New Hampshire, to stay at Union Village (now renamed Otterbein Homes) to care for the elderly Union Village women. By 1920, only a few original Union Village sisters remained at Otterbein, and they all relocated to the Eastern Shaker headquarters at Canterbury.

The 1912 sale of Union Village ends the history of the North Family Lot as a place of Shaker activity and represents a return to the Protestant roots of Union Village, which drew upon the Presbyterian New Lights ministries of the early 1800s. However, the North Family Lot continued as a locus of communal activity and had an extensive history associated with the United Brethren Church and the Otterbein Homes retirement community.

The North Family Lot in the Otterbein Homes Period, 1912–1947

After it acquired Union Village, the United Brethren Church used the North Family Lot as a home for the more infirm of its elderly residents, thus continuing its tradition as a center of communal living. The records are largely silent about the North Family Lot for the years 1913–1916; however, a 1919 account indicates that a decision was made in 1917 to convert the North Family Lot communal house into a home for aged and infirm people. A tenant farmer was living in the communal house at the time, so alternate quarters had to be found for him before they could start work on the conversion (Aument 2005:1).

In 1917, a battery lighting system was installed, and the wood-frame laundry house was cut in two and converted into two frame houses for farm workers. The 10-room, wood-frame Nurse Shop building was also moved from the rear of the old communal house to the west side of the road. The record indicates that Orion Nichols, a tenant farmer, moved into this structure, having earlier lived in part of the brick house that formerly served as the North Family Lot's communal house. The facility for the aged and infirm was known as the Good Samaritan Home, and was dedicated in 1918 (Aument 2005:1).

After the 1918 dedication, several proposals were made to re-use additional North Family Lot buildings, mainly the Broom Shop and Sisters' Shop buildings. These included a 1919 proposal to connect the Communal House with the Sisters' Shop, and a 1920 proposal to turn the Sisters Shop into an annex for the Good Samaritan facility and the Broom Shop into a hospital. All of these plans were delayed because of lack of funds. Additions were made to a tenant house and a barn in 1922, and the old Nurse Shop was damaged by fire in 1923, leading to the renovation of the structure into a tile and stucco tenant farmhouse in 1924.

Accounts of this time continued to report no progress on the renovation of the Sisters' Shop and the Broom Shop (Aument 2005:2–3), and reports of the North Family Lot from the 1930s indicated continued tenant farming (Aument 2005:4). Interior renovations were made at the old communal house in 1945, while at the same time plans were discussed to move the

Good Samaritan Home to a new facility. At some point in the 1950s, the North Family Lot was finally abandoned as a residential center. The last building was demolished in 1965, 150 years after it was first occupied by practitioners of a communal lifestyle.

CHAPTER 3. DETAILS OF LIFE AT THE NORTH FAMILY LOT

This chapter examines in detail some of the many aspects of communal life at a Shaker family lot, using the data on the North Family Lot as a base for discussion. Three different areas of Shaker life are examined here: general demographics, diet, and waste disposal, specifically how the disposal patterns at the North Family Lot can shed light on how well the Shakers actually adhered to their values and rules.

Demographics of the North Family Lot, 1829–1906

The population of the North Family Lot changed in composition over the years of its occupation, not only in terms of the family group that occupied it, but also in the gender and age ratios and the relative commitment of its membership. We obtained the data used for the following analysis of the North Family Lot population from these sources: the 1829 Gathering Order membership list, the 1831 Covenant, the 1836 Union Village membership tally, and the 1850–1880 censuses. Additional information on the presence and duration of occupation for some members was found in journal entries. This section attempts to identify population trends and apostasy rates in the North Family Lot by examining the data sources listed above.

A total of 432 people have been identified as members of the North Family Lot during the Shaker occupation from 1815 to 1906 (Table A1 in Appendix A). This total underreports the actual number of people who lived at the North Family Lot, as we do know that the Young Believers numbered around 150 people when the schism of 1828 occurred, and we have identified far fewer than 150 Shakers as Young Believers. The total number of Shakers during the Second Family occupation is better documented, but also probably misses a few members who lived at the lot for brief periods between census years before they moved to a different lot, died, or apostatized.

Overview of Demographic Changes in the North Family Lot

Detailed information on the demographic makeup of the North Family Lot before 1829 is almost completely lacking. The best source of information on population at the North Family Lot during the occupation of the Young Believers and central Gathering Order is a list of deaths of members associated with the Gathering Order, found in Daniel Miller's records of Union Village (Miller 1835). This source lists the deaths of members of the "3rd family (young order)" and the range of dates of deaths fits with the occupational period of the Gathering Order at the site (1818–1835). Miller also noted that the records for the North Family Lot were initially kept with the First Order and not with the central Gathering Order at the East Family Lot.

We will not attempt to discuss the population of the North Family Lot in the years 1815 to 1828 in as much detail as for the Second Family tenure. The population of the Young Believers subdivision of the Gathering Order was about 150 members near the end of their occupation of the North Family Lot, according to letters and diary entries that discuss the relocation of the central Gathering Order family to the North Family Lot. In general, the Shaker diarists did not record the individual names of the Gathering Order families containing the most recent converts to Shakerism—why they did not record the names of Young Believers in any membership tallies remains a mystery, although it could be because those families had high rates of attrition, or because they did not consider the members to be true Shakers until they had signed a covenant; the Young Believers would therefore not be considered eligible for inclusion in lists of those who were committed Believers.

After the Gathering Order family at the East Family Lot relocated to the North Family Lot in 1828, the Shakers recorded more information on the composition of the North Family Lot than in previous years, due to the higher relative status of the main Gathering Order family compared to the Young Believers. Two main sources of information on the population of the Gathering Order family are the 1829 membership roll and the 1831 covenant signed by North Family Lot members. Other information on the Gathering Order membership was gleaned from Richard McNemar's diary accounts of the period. McNemar recorded the movement of many individual Shakers between family lots, as well as deaths and apostasies of some of the members.

The population of the Second Family at the North Family Lot (1836–1906) is better documented than the preceding occupations. A membership list for all of Union Village (excluding the former Gathering Order, then renamed as the Young Order) was produced in 1836 after the massive community reorganization, providing us with a record of the starting population of the Second Family at the North Family Lot. Thereafter, the population of the North Family Lot was recorded in the 1850, 1860, 1870, and 1880 censuses. The records for the 1890 census were lost, and the 1900 census did not separate out the occupants of Union Village by family lot. Further information on the membership of the Second Family comes from various diaries and journal accounts.

The 1850 Federal Population Census is the first census that includes Union Village as a distinct entity and provides details about specific individuals. Before 1850, the censuses named only the individual heads of households, which for Union Village was only the first elder of each family. In comparison, the 1850 census lists each family member, their sex, age, state or country of birth, and in some cases, their occupation. Although individual Shaker families are not labeled, we can identify the North Family Lot and other families by comparing the names with the North Family leaders and members identified in Shaker diaries, as well as the names listed in later census data that did identify the Union Village families.

North Family Lot Population in the Young Believer Years, 1815-1828

As mentioned above, very little information is available that documents the population of the Young Believers at the North Family Lot. We can confirm that 38 people were members of the Young Believers between 1815 and 1828 (Table A2 in Appendix A); all but seven of

these were identified from the list of deaths in Miller's Union Village records (Miller 1835). Of the 38 Young Believers identified, 24 were male and 14 were female. We can gain some sense of the age range for this group by looking at the age at death of the 31 members on the list of deaths. The ages of the people who died at the North Family Lot between 1815 and 1828 ranged between 8 years old and 86 years old. We divided the age range into divisions of roughly ten years to see which age groups might have been more common in the Young Believers, although we have found no corroborating evidence to back up these assumptions. For the Young Believers under 20 years of age, we used the age of 16 to separate the younger members into children (those 15 and under) and young adults who would have participated in the Shaker workforce. Table 2 shows the age groups selected for this analysis and the number of Young Believers in each group.

Table 2. Age groups of deceased Young Believers

Age in years	8-15	16-20	21-30	31-40	41-50	51-60	61-70	71-80	81+	Total
Number of Young Believers	4	2	8	4	5	2	3	3	4	**35**

The numbers in Table 2 indicate that deaths were fairly evenly divided among the age groups, with no considerable difference between the death rate for children and the death rate for the elderly, except for the one obvious exception of the age group 21–30 years old, which has twice as many deaths as any other group in this analysis. There are two possible explanations for this: this age group represents the most populous age group in the Young Believers; or this age group was engaged in the most dangerous occupations, such as working in the sawmill or handling large livestock like bulls and oxen.

We know that the approximate population of the Young Believers before they were displaced from the North Family lot was 150 people. Only ten members of this group have been identified: Abijah Alley, Allen Agnew (who was a member of the Whitewater, Ohio, Shaker village, and may have only been staying temporarily at the North Family Lot), Gideon Hughes, Joseph Longstreth, Andrew Miller, George Newcom, James Smith, David Spinning, Emerine Trotter, and James Darrow.

North Family Lot Population in the Gathering Order Years, 1828–1835

The two major sources of information on the Gathering Order population are the 1829 membership list and the 1831 Covenant (Union Village Ministry 1812–1831). Twenty-three men and 26 women appear on the 1829 list, which includes 12 people under the age of 16. Table A3 in Appendix A presents the individuals on the list and their reported ages in May 1829.

The 1830 census does contain some information that may pertain to the North Family Lot (United States Census Bureau 1830), and although it only identifies heads of households, it does break down the total household population by age, gender, and race. David Spinning appears as a head of household on this census, and because we know that Spinning was First

Elder of the Gathering Order in 1830, we can infer that the household listed under his name is the North Family Lot. The 1830 census recorded a total of 75 members present: 45 males and 30 females, all of whom were white.

In 1831, some of the members of the North Family Lot signed a covenant. Only 23 names appear on this covenant, which did not include ages (Table A4 in Appendix A). Eleven of these 23 names also appear on the 1829 membership list, and all were full adults, ranging in age from 19 to 69. However, not all the members of the North Family Lot who were living there in 1831 signed this covenant; those who signed likely are the members who were making the full commitment to the Shaker religion.

In addition to the 1829 and 1831 lists, we used Miller's list of deaths at the North Family Lot (Miller 1835) and various journal entries to identify members of the Gathering Order. In total, 101 people were identified as members of the Gathering Order during the period of 1828 to 1835, 40 males and 52 females (Table A5 in Appendix A).

Information about the ages of Gathering Order members was found for 46 individuals, 21 males and 25 females. Table 3 shows the ages of the Gathering Order members with known ages who were present in 1828, the year the Gathering Order first occupied the North Family Lot. The members of the group were almost evenly divided across the age groups, with a major difference only in the ratio of male and female children aged 10 to 15. Children, here defined as those ages 15 and under, accounted for about a quarter of the membership. The composition shown in Table 3 suggests that at the beginning of their tenure at the North Family Lot, the Gathering Order was dominated by young people, with only 17 members above the age of 30. Of these, 9 were men and 8 were women. Furthermore, only two women were over the age of 40. Half the group was between the ages of 20 and 39, suggesting a vigorous group of Shakers in their prime of life. Table 4 presents the 1830 census data for the group we have identified as the North Family Lot; it shows an increase in population but otherwise keeps a similar age ratio among the groups.

Table 3. Age groups of Gathering Order members, 1828

	Ages in years								
Gender	**1-9**	**10-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60+**	**Totals**
Male	2	3	2	5	5	2	1	1	**21**
Female	2	6	2	7	6	1	1	0	**25**
Totals	**4**	**9**	**4**	**12**	**11**	**3**	**2**	**1**	**46**

Table 4. 1830 census data for David Spinning's household

	Ages in years									
Gender	**Under 5**	**5-9**	**10-14**	**15-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**Totals**
Males	0	2	5	6	14	10	4	3	1	**45**
Females	1	2	2	3	10	6	3	2	1	**30**
Totals	**1**	**4**	**7**	**9**	**24**	**16**	**7**	**5**	**2**	**75**

The average length of stay at the North Family Lot during the Gathering Order period was about seven years. Thirteen members died during the Gathering Order period, while only one left for the world. Discounting deaths, the most common minimum length of stay within the Gathering Order at the North Family Lot was three years, with 24 members having that duration. Twelve members stayed for five years before leaving the Gathering Order, but few people stayed longer than that before moving on, usually to a different family. The Square House family was the most common destination for members who transferred to another family, with nine Shakers leaving the Gathering Order for that lot. The East Family Lot was a close second destination, receiving eight former Gathering Order members. The West Frame Lot took in six former Gathering Order residents. Three Gathering Lot members moved to the West Lot, two to the Center Family, and one to the North House.

Several individuals stayed at the North Family Lot for a considerable time, including such Shakers as James Darrow, who lived at the North Family Lot from 1823 to 1841; Priscilla Tibbinghein, from 1828 to 1843; Gideon Hughes, ca. 1823 to 1833; and David Spinning, 1824 to 1832. In addition to Darrow, Spinning, and Tibbinghein, a group of eight other people were present for the entire eight-year occupation of the main Gathering Order family, from 1828 to 1835: Jane Dilto, Lucy Faith, Julia Hampton, Ransom Lockwood (who left Union Village in 1835), Margaret Longstreth, Vincent Vandever, Noah Wheeler, and Eunice Jackson. This group of eight ranged in ages from 18 to 38 in 1828, and probably represents a core group of experienced Shakers who served to teach converts the ways of their new religion and to impress upon them a good work ethic.

North Family Lot Population in the Second Family Years, 1836–1906

The discussion of the demographics of the Second Family years of the North Family Lot has been split into five periods based on the major sources of information: the 1836 membership list and the censuses for 1850 through 1880. The five periods are as follows: 1836–1849, 1850–1859, 1860–1869, 1870–1879, and 1880–1900.

1836–1849

The main source of demographic information for the initial years of the Second Family is the 1836 membership list (Table A6 in Appendix A), which was a tally of the members taken after the community-wide reorganization in January of 1836, listing 70 Shakers as members of the Second Family at the North Family Lot (Union Village Ministry 1836). Further research into diaries identified four more Shakers who were not on this list, bringing the total for 1836 to 74 members. Because it was the initial year for the Second Family, we chose 1836 as the representative year for demographic analysis of this period. Further information on Second Family membership during the period of 1836–1849 comes mainly from various journal entries.

A total of 146 people were identified as residents of the North Family Lot during this period, including 70 males and 75 females. A list of all members present in 1836 through 1849 can be found in Table A7 in Appendix A. Thirty-one of the members in 1836 were male and 43 were female. Information on the ages of members was found for 48 Shakers, presented in Table 5.

Table 5. Age grouping of Second Family members with known ages in 1836

	Ages in years									
Gender	**1-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80+**	**Totals**
Male	0	0	2	6	6	2	3	2	0	**21**
Female	4	0	2	8	7	2	2	2	0	**27**
Totals	**4**	**0**	**4**	**14**	**13**	**4**	**5**	**4**	**0**	**48**

Table 5 shows that the Second Family makeup at the start of their occupation of the North Family Lot was mainly composed of Shakers in the prime of their life, with few children or elderly members. Of interest is the lack of teenage members in the age group of 16 to 19, and the few members in the age group of 20 to 29, indicating perhaps that younger Shakers at this time were more strictly associated with the Gathering Order. None of the children were over 11 years of age, and two of the Shakers in their twenties were 28 and 29 years old. The Second Family began its tenure at the North Family Lot with a group of vigorous adults.

The 1840 census named only the heads of households, and so members of the North Family Lot could not be identified with 100 percent certainty (United States Census Bureau 1840b). A good match for the North Family Lot was found under David Parkhurst's name in the "Heads of Families" column, which had a very close total population compared to the total for 1836. Although David Parkhurst was not First Elder in 1840, he was a trustee, and as such, his job was to interact with the world; he thus could have represented the head of household for census purposes. Table 6 presents the census listing for David Parkhurst's household. The age grouping information for 1836 and 1840 is only roughly comparable, since the 1836 data is incomplete. However, in terms of general age trends, the trend seems to continue that the most populous age groups are between the ages of 20 and 49, with a slight aging affect shown in the larger 1840 population in the 50–59 years age group. Overall population size and male-to-female ratios stayed about the same in the four years between 1836 and 1840.

Table 6. 1840 census data for David Parkhurst's household

	Ages in years											
Gender	**Under 5**	**5-9**	**10-14**	**15-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80-89**	**Totals**
Males	5	1	0	1	1	5	8	4	3	4	0	**32**
Females	1	6	4	2	7	7	5	6	3	2	1	**44**
Totals	**6**	**7**	**4**	**3**	**8**	**12**	**13**	**10**	**6**	**6**	**1**	**76**

During this initial period of the Second Family at the North Family Lot, the population fluctuated, with at least 70 people taking up residency at the North Family Lot after the initial occupation in 1836. Only six people are known to have died at the North Family Lot during this time. Nineteen people are noted in journal entries to have moved to different family lots, and at least 22 people left the society or, in the case of children, were removed by or sent home to their parents. Members who apostatized did so individually and not in groups. Children left the lot in family groups, with the exception of Mary Song, who was sent away after causing a fire in the Green Shop in 1840. One member, Phebe Howard, apostatized in

1845 only to return in 1850. The rate of apostasy in the period between 1836 and 1849 was about two people a year, with no members recorded as leaving for the world in 1838, 1842, 1846, and 1849. Six people left in 1848, but this includes four children of the Rice family who were sent back to their parents. Of the 18 members who left voluntarily and were not sent away or taken back by parents, ten left after spending less than five years at the North Family Lot. Three left after spending between five and nine years with the Second Family, and two members apostatized after living with the Second Family for over ten years. No age data was available for the apostates. Presumably, the children that were taken or sent away were all under the age of 16.

1850-1859

The 1850 census included 80 members of the North Family Lot, evenly divided between 40 males and 40 females (United States Census Bureau 1850b). Seventy-two members remained from the 1836–1849 period. Additional sources place the total number of Shakers at the North Family Lot between 1850 and 1859 at 134 people, with 74 males and 60 females (Table A8 in Appendix A). We located information on the ages of 87 Second Family members, including the members on the census and seven additional people. Table 7 shows the distribution of Second Family members with known ages at the start of the period in 1850.

Table 7. Age groups of Second Family members with known ages, 1850

	Ages in years									
Gender	**1-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**81 +**	**Totals**
Males	21	1	1	1	4	13	1	2	3	**47**
Females	6	3	4	2	6	10	4	2	3	**40**
Totals	**27**	**4**	**5**	**3**	**10**	**23**	**5**	**4**	**6**	**87**

Table 7 shows that the aging of the population had already begun to set in by this time, with 38 adult members over 50, compared to only 18 adults under that age. The family also had a surprisingly large number of children, who made up nearly a third of the population, with boys as the largest single group in the table. The large number of boys skews the male-female ratio of the Second Family population in the 1850s; if we remove the age group of 1–15 years, female Shakers outnumber men, with 34 females to 26 males. It is not clear why such a high proportion of the children at this family in 1850 were male; possibly it was a coincidence, or maybe it was hoped that the pool of male children would eventually lead to adult male Shakers who could maintain farming and industry at the North Family Lot. If we examine the recorded North Family Lot apostates, we see that retaining younger male members was clearly a problem—of the 13 known apostates, 11 were males and only 2 were female. Seven of the apostates have known years of birth, which allows us to identify their age at the time they left the society. The youngest member to leave was 9 years old, taken away by his mother. The other members who left were all teenagers, ranging from 15 to 19 years of age. Two other apostates with unknown ages were also probably young adults, as one was the schoolteacher, Thomas Colman, and the other was a young woman who was

brought with her siblings to the North Family Lot in 1846. All the known apostates left in the first half of the 1850s.

Apostasy was not the only reason for the declining population of the North Family Lot in the 1850s. Some members also died, particularly in the early part of 1853, when seven members died between February 25 and March 20, most likely from a communicable disease. These seven people ranged in age from 48 to 84 years, although most were elderly, in their 70s and 80s. Four other deaths were recorded at the North Family Lot between 1850 and 1859, including a 13 year old boy, a middle-aged man, and an elderly man. Two Shakers were specifically recorded as moving to the Center or Church Family.

Forty-two Shakers who were present at the North Family Lot in the 1850s do not appear on the 1860 census. Examination of the missing Shakers reveals that 24 were likely apostates, based on their age, time spent with the Shakers, and familial relationship to known apostates. Five Shakers were identified as probably dying during the 1850s, based on their age and duration with the Shakers. Finally, four Shakers were identified that moved from the North Family Lot sometime during the 1850s. The fate of the remaining nine Shakers in the group of 42 missing Shakers is harder to discern. We could probably identify some of the North Family Lot members who moved to other lots by widening the examination of demographic trends to the entire Union Village population, but that is a topic for a future study.

The demographic profile of the North Family Lot in 1850 may help us understand why certain activities and industries were falling out of practice or ceasing altogether. The lack of younger males in the population may be related to the cessation of some of the more labor-intensive industries, such as the pottery. The concentration on broom manufacture that replaced the pottery may be attributable to the relative labor costs and ease of work for the older male members. Or, it could be that many of the members who were involved with the pottery apostatized in the 1840s. The large number of boys may be connected to the construction of a boys' house in 1848 somewhere on the property.

1860-1869

Although the Civil War era is generally represented by scholars as a period when the Shakers were in the midst of a large decline in population, the North Family Lot membership was still quite large at the time of the 1860 census (United States Census Bureau 1860b). Census data listed 94 members in 1860, an increase from the 80 listed in 1850, and 5 other Shakers not listed on the census are known to have been there in 1860, according to journal accounts. Other members identified in journal accounts brings the total number of members known to be present during the 1860s to 109 people, evenly divided between males and females (Table A9 in Appendix A). We were able to locate information on the ages in 1860 of all but three of the members of the Second Family at the North Family Lot, presented in Table 8.

Table 8. Age groups of Second Family members with known ages, 1860

	Age in years									
Gender	**1-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80+**	**Totals**
Males	19	6	2	1	0	10	9	1	0	**48**
Females	18	2	7	4	0	6	8	4	2	**51**
Totals	**37**	**8**	**9**	**5**	**0**	**16**	**17**	**5**	**2**	**99**

The large population at this time had few members under the age of 60 who would have been able to actively engage in farming, cottage industry, and household activities, and over a third of residents were children under the age of 15. A definite generation gap was occurring in the population, with no members at all in their 40s at the start of the 1860s. Forty members were over the age of 50, while only 22 adults were under the age of 50. Eight of the 22 young adult members were between 16 and 19 years old and likely did not contribute much skilled labor to family tasks.

No members present during the 1860s were confirmed to have apostatized from the North Family Lot; however, after analyzing age groups, duration of residency, and relationships to other known apostates, we identified 48 possible apostates. Eight members of the lot are recorded as having died at the North Family Lot during the 1860s, all between the ages of 64 and 94, with the exception of Emmett McBrien, who died of a fever in 1862 at the age of 25 (Poor 1862–1865:161). Based on their ages and length of time as Shakers, we identified eight other members that do not appear on the 1870 census as people who probably died at the North Family Lot in the 1860s.

1870-1879

From journal entries and census dates, we identified a total of 73 individuals who lived at the North Family Lot in the 1870s, including 34 males and 39 females (Table A10 in Appendix A). The 1870 census data on the North Family Lot is difficult to interpret, as the census taker appeared to have divided the village up into household units that were smaller than the actual family lots, making it difficult for us to match the data with the family (United States Census Bureau 1870b). However, a group of Shakers identified on the documentation appears to correlate with the group labeled as the North Family on the 1880 census and Union Village records of elders and deacons. The household units on the 1870 census probably represent different buildings within a family lot that housed Shakers; for example, the census taker may have separated the members of the North Family Lot according to who was living in the Communal House and who was being tended to in the Nurse Shop.

From the 1870 census, we identified a total of 59 people as members of the North Family Lot. Journal entries account for two more people present in 1870 who were not on the census, for a total of 61 inhabitants in 1870, which represents a 40 percent drop in population from the 99 occupants in 1860. Almost all the men in the 1870 census were characterized as working on the farm, all women were identified as doing housework, and children were labeled as attending school. It is not clear if this drop was caused by the decline of the industries or by a lack of effort on the part of the census taker, although we highly suspect the census taker, since craft industries were still active in the 1870s.

Table 9 presents the age groups of the 61 Second Family members with known ages in 1870. The demographic data appears to conform to the pattern that Shakers in this era were mainly elderly members over 60, with 32 Shakers in this category. Twelve children were present; all but one were girls. Seventeen members (9 men and 8 women) were under the age of 60 years old.

Table 9. Age groups of Second Family members with known ages, 1870

	Age in years									
Gender	**1-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80+**	**Totals**
Males	1	2	2	1	1	3	10	9	0	**29**
Females	11	2	1	2	2	1	7	4	2	**32**
Totals	**12**	**4**	**3**	**3**	**3**	**4**	**17**	**13**	**2**	**61**

One account from November 1873 records 32 members of the Second Family, which if accurate, represents a population decrease by nearly half from the 1870 population. The same report records the total number of people at Union Village as 172 (Redmon 1863–1879:695); it is not clear if this report included children in the tally. Edwards notes 235 people at Union Village in 1870 in her population study (Edwards 1988:85). The North Family Lot population figure shows a large difference from the North Family Lot membership of 1860, possibly reflecting a diminished capability of the lot to serve as an economic refuge for temporary residents. No records were found for apostates in the 1870s, but it is almost certain that people did leave the North Family Lot for the world. In the demographic data, we identified possible apostates or children taken away by their parents by analyzing the age groups, duration of residency, and relationships to other North Family Lot residents that are only present on the 1870 census. The possible apostates include all of the members under 30 years old in Table 9, along with one of the women in the 30–39 years group.

Nine Shakers were recorded as dying at the North Family Lot in the 1870s, including members who held leadership positions in the family or were frequently mentioned in journal entries, such as Stephen Easton, Timothy Bonnel, Aaron Babbit, Tryphena Babbit, and Charlotte Parkhurst. Three other Shakers also may have died at the North Family Lot in the 1870s, based on their advanced ages and their absence on the 1880 census. Two Shakers are known to have moved to different family lots during the 1870s.

1880-1899

Fifty-three Shakers were identified as North Family Lot residents in the period of 1880 to 1900, including 24 males and 29 females (Table A11 in Appendix A). Using census data and journal entries, we identified a total of 49 people as present at the North Family Lot in 1880 (United States Census Bureau 1880b). Table 10 shows the age grouping for the 45 members with known ages in 1880.

Table 10. Age groups of Second Family members with known ages, 1880

	Age in years									
Gender	**1-15**	**16-19**	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**	**70-79**	**80 +**	**Totals**
Males	3	1	0	1	3	1	4	5	2	**20**
Females	8	0	0	1	4	1	4	7	0	**25**
Totals	**11**	**1**	**0**	**2**	**7**	**2**	**8**	**12**	**2**	**45**

The demography of the 45 North Family Lot residents in Table 10 matches generalizations about population trends for late nineteenth-century Shakers that appear in secondary sources, but with some exceptions. The population was clearly in decline, with only three adult members under the age of 40. In contrast, 22 members were over the age of 60, with the most populous age group being that of 70–79 years old. There were slightly more females than males in total. However, if we eliminate children under the age of 16, the male/female split of the adult population is evenly divided, with 17 men and 17 women. This data does not seem to agree with the reported "feminization" of the Shakers in the late nineteenth century—many sources reported a much larger proportion of women than men in the society during that time. It is not clear if there was some effort to artificially balance the number of men and women in the North Family Lot, and we found no evidence of such efforts in Union Village histories or in individual diaries. As was typical of Shakers of the era, the North Family Lot of the 1880s had taken in a significant number of children. And, as in the 1870s, the children were almost all female. Of the 11 children under 16 only three were boys, while eight were girls.

Before her death in 1890, Amy Slater noted that only nine Shakers at the North Family Lot were attending meetings, probably indicating a precipitous decline in membership and an inability of the remaining members to actively participate. Of the 49 known members in the period 1880–1900, we have six documented deaths at the North Family Lot, and 21 elderly members likely died during this time as well. At least four members had died by 1890. Furthermore, 21 members probably apostatized in this period, including all the children and six adults. Only four people were identified who joined the North Family Lot after the 1880 census, one of whom likely died at the lot and one who probably apostatized.

The Final Years, 1900-1906

We found little specific information on the North Family Lot in the records after 1890. Union Village was recorded on the 1900 census, but the data was not divided into separate families; it had one entry for the entire village, with one set of four trustees listed as the heads of the household (United States Census Bureau 1900). Few diary entries identifiable as related to the North Family Lot were found for this period. Only two of the Union Village names listed on the 1900 census data matched North Family Lot names from the 1880–1900 period: John Goetz and Ann Marie Myers; both had joined the North Family Lot after the 1880 census. Clymena Miner moved from North Union and became the eldress of the Second Family in 1900. Miner remained the eldress of the North Family Lot until 1906 when the lot was closed and its inhabitants moved to the Center Family (*Western Star* 1916). At the time the North Family Lot closed, it appears that less than ten people were still living there; only the three people mentioned above could be identified as North Family Lot residents.

Previous Studies of Shaker Demographics

Edwards' Population Study of Union Village

In 1988, Sharon Edwards published an article in the journal *The Old Northwest* that presented an overview of the characteristics and changes in the overall population of Union Village between 1805 and 1870 (Edwards 1988). Edwards' goal was to examine the population of Union Village in order to characterize the people who became Shakers and understand the causes of population trends that occurred within the village. Much like our own study, Edwards relied on sources such as the federal population census data and Shaker journals and membership lists.

Among her findings, Edwards notes that those who converted as family groups often were those who stayed life-long Shakers, as noted by the presence of elderly Shakers in the 1860s bearing the names of the first convert families (Edwards 1988:71). The diversity of Union Village members by place of birth was higher than that for Ohio as a whole in the mid-1800s, due to the Shakers' practice of celibacy, which disallowed for the birth of children at Shaker communities. In 1850, one in three Shakers at Union Village was a native Ohioan; in contrast, over 60 percent of contemporary Ohio residents were born in Ohio (Edwards 1988:72). Edwards found that Union Village had large numbers of foreign-born converts—10 percent of the total Union Village population in 1850, increasing to 24 percent of the population in 1870. (The Warren County foreign-born population as a whole for the same years was 4 percent and 6 percent, respectively.)

Edwards prepared a number of graphs that illustrated the change in demographic trends at Union Village. One graph in particular provided useful comparative data to our study of the North Family Lot population, a bar graph showing the age distribution of Union Village Shakers taken from the federal census data for 1830 through 1870 (Edwards 1988:86). Using the same census information, we were able to compare the North Family Lot population to the population of Union Village as a whole for the same time period Edwards used in her graphs. By doing this comparison, we can determine if the North Family Lot had a similar composition of age groups as that of Union Village as a whole, or if at times the North Family Lot had much higher or lower percentages of people of a certain age. We can also determine how much of the total population of Union Village were residents of the North Family Lot during the given census year. We used Edwards' age groupings for ease of analysis; although we feel the age groupings presented in Table 2 through Table 10 are closer to how the Shakers may have divided their membership by age.

The following tables (Table 11 through Table 15) present our findings.

Notes on the table format: The initials "NFL" are used to denote the North Family Lot; some percentage totals do not add up to 100 percent due to rounding; and the last cell in the rightmost column represents the North Family Lot as a percentage of the entire population of Union Village.

Table 11 compares the North Family Lot population in 1830 to that of Union Village as a whole at the same time. In 1830, the North Family Lot was still occupied by the Gathering Order, and there were nine active family lots present at Union Village. We can see from

Table 11 that the North Family Lot was fairly similar to the entire population of Union Village in terms of age groups, although the North Family Lot had higher percentages of younger members (between 0 and 39 years of age) and lower percentages of older members (30 years and older) than the general Union Village population. Although the North Family Lot represented 15 percent of the total population at Union Village, the lot contained nearly a quarter of the members in their 20s, and had about a fifth of the members under 20 years old. While nearly a quarter of Union Village Shakers in 1830 were in their 30s, only 13 percent of North Family Lot members were in the same age group.

Table 11. Population comparison of North Family Lot to Union Village, 1830

Age Group	Union Village population	Percentage of age group within total Union Village population	NFL population	Percentage of age group within total NFL population	Percentage of NFL age group within equivalent Union Village age group
0-9	23	5%	5	7%	22%
10-19	77	16%	15	20%	19%
20-29	104	21%	24	32%	23%
30-39	118	24%	16	21%	13%
40-49	53	11%	7	9%	13%
50-59	59	12%	5	7%	8%
60-69	44	9%	2	3%	4%
70-79	12	2%	0	0%	0%
80+	0	0%	0	0%	0%
Totals	**490**	**100%**	**75**	**99%**	**15%**

Table 12 shows the 1840 population information for the North Family Lot and Union Village. Although no longer housing the Gathering Order, the North Family Lot in 1840 still presented an age group profile similar to that in 1830, with higher percentages of younger members (between 0 and 39 years of age) and lower percentages of older members (40 years and older) than the general Union Village population, although the trend towards an aging population is clearly visible. The percentage of the Union Village membership represented at the North Family Lot is also higher, at 22 percent of the total population, even though the actual number of people at the lot was nearly the same as in 1830. This fact is due both to the decline in overall population and the dispersal of several families in the 1830s, including the East Family, West Lot Family, Square House family, and Grist Mill family. Interestingly, although there were two family lots under the control of the Gathering Order in 1840 (the West Frame and West Brick lots), the Second Order at the North Family Lot had significant numbers of young members. For example, children less than nine years of age made up only 10 percent of the total Union Village population, but 37 percent of this age group lived at the North Family Lot. Shakers in their 20s were among the least numerous in the Union Village age groups, but a third of their numbers were present at the North Family Lot in 1840. A third of Union Village Shakers in their 70s also lived at the North Family Lot.

Table 12. Population comparison of North Family Lot to Union Village, 1840

Age Group	Union Village population	Percentage of age group within total Union Village population	NFL population	Percentage of age group within total NFL population	Percentage of NFL age group within equivalent Union Village age group
0-9	35	10%	13	17%	37%
10-19	51	15%	7	9%	14%
20-29	24	7%	8	10%	33%
30-39	48	14%	12	16%	25%
40-49	65	19%	13	17%	20%
50-59	50	15%	10	13%	20%
60-69	44	13%	6	8%	17%
70-79	17	5%	6	8%	35%
80+	4	1%	1	1%	25%
Totals	**338**	**99%**	**76**	**99%**	**22%**

The year 1850 represents a change in the age group ratios between the North Family Lot and Union Village, although the lot still accounted for about a fifth of the overall Union Village population. For the first time, in terms of percentages, the general population at Union Village had more young people than did the North Family Lot, with the exception of the age group of 10–19 years; this age group at the North Family Lot represented 24 percent of that age group within the Union Village population. The only other age groups at the North Family Lot that exceeded the general Shaker population at Union Village at that time were the 50–59 year-olds (31 percent of that age group at Union Village) and the people over 80 years old (55 percent).

Table 13. Population comparison of North Family Lot to Union Village, 1850

Age Group	Union Village population	Percentage of age group within total Union Village population	NFL population	Percentage of age group within total NFL population	Percentage of NFL age group within equivalent Union Village age group
0-9	75	17%	10	11%	13%
10-19	87	19%	21	24%	24%
20-29	33	7%	5	6%	15%
30-39	42	9%	3	3%	7%
40-49	53	12%	10	11%	19%
50-59	74	16%	23	26%	31%
60-69	42	9%	5	6%	12%
70-79	36	8%	4	5%	11%
80+	11	2%	6	7%	55%
Totals	**453**	**99%**	**87**	**99%**	**19%**

In 1860, the demographic profiles for Union Village and the North Family Lot were very similar, with a few exceptions. The North Family Lot was home to less than half the percentage of those 10–19 years old than in the general Union Village population, although this North Family Lot group still accounted for 31 percent of the total age group's population. The North Family Lot also had a slightly higher proportion of children less than 10 years old, and much lower numbers of people aged 30–39 (9 percent in the general population, 5 percent at the North Family Lot) and had no members at all in their 40s. The North Family Lot was home

to a larger proportion of members under 30 years old in the total Union Village population in 1860 than it was in 1850, but had a much smaller proportion of the extremely elderly (12 percent in 1860 vs. 55 percent in 1850). Overall, the North Family Lot was home to a quarter of the entire population of Union Village in 1860, which is somewhat surprising considering that there were still five other active families present in the community—the Center House, the North House, the South House, the West Brick, and the West Frame.

Table 14. Population comparison of North Family Lot to Union Village, 1860

Age Group	Union Village population	Percentage of age group within total Union Village population	NFL population	Percentage of age group within total NFL population	Percentage of NFL age group within equivalent Union Village age group
0-9	38	9%	13	13%	34%
10-19	104	26%	12	12%	31%
20-29	41	10%	9	9%	22%
30-39	37	9%	5	5%	13%
40-49	20	5%	0	0%	0%
50-59	54	14%	16	16%	30%
60-69	62	16%	17	17%	27%
70-79	26	7%	5	5%	19%
80+	17	4%	2	2%	12%
Totals	**399**	**100%**	**99**	**99%**	**25%**

Table 15 shows the relative compositions of the North Family Lot and Union Village in 1870, the last year that Edwards used information from the census in her study. As in 1860, the 1870 population data shows that the North Family Lot accounted for one-quarter of the total Union Village Population. The relative percentages of people over the age of 50 at the North Family Lot in comparison to the general population of Union Village was roughly the same, with slightly more people in their 50s and 60s and slightly less people in their 70s and 80s. Young Shakers between the ages of 10 and 19 made up 12 percent of the North Family Lot population, which is less than half of the amount of the same age group in the general community population. Over a third of Union Village's young children (under the age of 10) lived at the North Family Lot in 1870, along with similar percentages of Union Village Shakers in their teens and in their 50s.

Table 15. Population comparison of North Family Lot to Union Village, 1870

Age Group	Union Village population	Percentage of age group within total Union Village population	NFL population	Percentage of age group within total NFL population	Percentage of NFL age group within equivalent Union Village age group
0-9	23	10%	5	8%	22%
10-19	40	17%	11	18%	27%
20-29	19	8%	3	5%	16%
30-39	24	10%	3	5%	12%
40-49	23	10%	3	5%	13%
50-59	20	8%	4	6%	20%
60-69	44	19%	17	28%	39%
70-79	34	14%	13	21%	38%
80+	8	3%	2	3%	25%
Totals	**235**	**99%**	**61**	**99%**	**26%**

Edwards' study of the general population of Union Village provides a needed starting point for demographic studies of Union Village. Although only focused on general numbers and lacking any detailed examination of other demographic factors such as gender, the study lays out the ground work for comparative studies. Our demographic analysis of the North Family Lot shows that after the 1850s, when the Shaker population was well into a decline, the lot became a major population center for the village, accounting for a quarter of the entire Shaker population at Union Village in the 1860s and 1870s. Edwards' work does not address if the characteristics of Union Village's population trends were unique to the community or part of a wider pattern of Shaker demography in the nineteenth century. In order to address this issue, we found a study that focused on an Eastern Shaker family to be a source of insight into the question of change in the populations of Shaker villages.

Brewer's Stages I-IV for the New Lebanon Church Family

In preparing this section of the chapter, we found Priscilla J. Brewer's article on the decline of Shaker populations to be a great resource and inspiration on how to approach the issue of studying change in the composition of Shaker communities (Brewer 1984). Brewer's study focused on the New Lebanon Church family because of its rich archive of information related to the family, and identified five stages in the social and demographic history of that family:

Stage I: 1787–1799
Stage II: 1799–1825
Stage III: 1825–1844
Stage IV: 1844–1860
Stage V: 1860–1900

Although Brewer's stages are not generic enough to directly apply to the North Family Lot, they do provide enough similarities to use as a guide and comparison to the development of the North Family Lot population. According to Brewer, membership numbers are not by themselves adequate to assess the viability of the Shakers at any point in time. Shakerism was once thought to be more popular with women than men, but this is not true: men outnumbered women in the early years of the sect, 1780–1800, and more men were admitted than women. External conditions contributed to the gradual dominance of women to men in Shaker populations. Young men, for example, often left the society. The average rate of apostasy was around 30 percent for the period of 1787–1900, indicating that commitment to the Shaker lifestyle was not easy for all to accept (Brewer 1984).

Brewer's Stage I (1787–1799) was the period when early membership in the group grew quickly. The initial members tended to come from backgrounds of low to moderate income, and often joined as entire family groups. Early causes of apostasy included the elevation of women to leadership roles following the death of Ann Lee, as many men could not accept women in positions of authority. Other apostates towards the end of Stage I were younger members who did not like the imposition of more rigid rules and structure on the society.

Stage II (1800–1825) was a period of stability, when most of the people who were dissatisfied with the new direction the Shakers were taken had left. During this period, the various Shaker villages attracted converts through Shaker Benjamin Youngs' *Testimony of Christ's Second Appearance,* and the Shakers developed markets for their goods. The

perceived success and well-being of Shaker communities in this period attracted many converts who were more interested in the welfare offered by the communal society than the religion.

Stage III (1825–1844) was characterized by a stable male-to-female ratio, but the age ratio changed. Children brought into the society showed increasing tendencies to leave when they reached adulthood. The leadership pool was shrinking, and the quality of leaders was perceived to be lower than in earlier years. Controversies during this period include proper diet and selection of leadership (e.g., democratic selection by members versus anointing them from above by the ministry). The 1840s Era of Manifestations initially bolstered membership but ultimately also became a way for younger members to subvert the authority of the elders, who could not distinguish "true visions" from those that were deliberately made up.

Stage IV (1844–1860) was marked by a high rate of apostasy, with an influx of new members, most of whom were under 16 and were not equal replacements for the productive members who left. Brewer states: "Evidence indicates that many of the youngsters housed in the Family during these years were merely sent to the Shakers for brief periods while their relatives reestablished themselves. Throughout the middle of the century, the Family increasingly became a specialized institution for the care of displaced minors, most of whom would either be removed by relatives or would leave of their own accord" (Brewer 1984:49). The population was high but unstable, with numerous members staying only for less than 10 years.

In the early part of Stage V (1860–1900), the majority of new members were children. Only one of these children converted to Shakerism at age 21 at New Lebanon. In the 1870s, nearly 30 percent of members left the society. By 1875, the New Lebanon male-to-female ratio was 30 to 70. Orderly behavior, especially among the younger members, seemed to decline, and the suicide rate increased, notably including Isaac Youngs in 1865. By the 1880s, the Shakers gave up trying to replenish their membership by taking in children, and the number of younger members dropped. The stricter rules were relaxed. Elderly Shakers became the dominant group, and the ratio of men to women continued to drop.

Brewer's Demographic Stages at the North Family Lot, Union Village

We cannot draw exact parallels between Brewer's stages as applied at New Lebanon's Church Family and the North Family Lot of Union Village. First, the time periods of the stages at New Lebanon cover a longer period of time than that at Union Village. And second, the function of the Church Family at New Lebanon did not change, whereas the North Family Lot was occupied by three different family groups. Still, there are enough similarities between the stages at New Lebanon and the population trends at Union Village that we think adapting these stages for this study can help us understand the demographic trends at Union Village.

At the North Family Lot, Stage I is associated with the tenure of the Young Believers that occupied the lot between 1815 and 1828. As with the New Lebanon Shakers, the Young Believers' period was a time of rapid growth for Union Village, with new family lots developed to house an expanding population of converts to Shaker beliefs. Family groups

were definitely present in the Young Believers, including the Darrows, Babbits, Olmsteads, Parkhursts, Trotters, and Tibbingheins. The rate of apostasy during this period is poorly documented, although the end of the period involved a number of Young Believers leaving the society.

Stage II at the North Family Lot correlates to the time the central Gathering Order family occupied the lot, 1829–1835, and the initial occupation of the lot by the Second Family, 1836–1849. This time was a stable period at the lot, with little new construction and an apparent low rate of apostasy. Turnover of membership within the Gathering Order mainly involved transferring members to other family lots, presumably as they became accepted as truly converted Shakers and were considered ready to assume full-time responsibilities within the society. Although the lot changed hands when the Second Family was formed in 1836, the character of the population from 1836 to 1849 is more in character with Stage II than Stage III. During the first 14 years of the Second Family, membership consisted of Shakers in the prime of their lives, and activity at the lot focused on industries producing items such as pottery, herbal medicines, and carpets, all for non-Shaker markets.

Stage III is the period of initial decline, with membership for the most part stable but characterized by an increase in apostasy by younger members and the aging of the core population of dedicated Shakers. At the North Family Lot, Stage III correlates to 1850–1869. This period at the North Family Lot is marked by an increase in the number of children, brought to the society in the hope they would convert to the faith upon reaching adulthood. The leadership pool was showing indications of problems to come, with few members younger than 50 years old.

Stage IV, a period of low retention of new members and an increase in elderly members, is associated with the years 1870–1879 at the North Family Lot. During this period, the apostasy rate was high, and the core group of experienced Shakers began to decline, as long-term members who served as role models for younger members succumbed to old age. During this period, the male-to-female ratio went from being fairly even to being more and more dominated by female members.

Finally, Stage V correlates to the last decades of the North Family Lot as a Shaker entity, 1880–1906. As with the New Lebanon Shakers, the early years did see some attempt to bolster membership by taking in children, but this activity appears to have ceased by the 1890s. Stage V at the North Family Lot is marked by high rates of apostasy by people who likely joined only as a buffer against economic hardship, as the attractiveness of the Shakers as a means of support declined. This period also marks the time when nearly all the dedicated Shakers who formed the core of the North Family Lot died, and very few candidates were available to step forward as leaders.

Further work is required to explore just how widely Brewer's stages apply to diverse Shaker groups, but the initial attempt to apply them to the North Family Lot of Union Village shows that the concept holds a good deal of promise for helping to categorize occupational periods at Shaker communities.

Apostasy at the North Family Lot

As discussed in the sections above on the Second Family, retaining members was an increasing problem through the latter half of the nineteenth century. This section focuses on the Second Family only at the North Family Lot. No reliable information on Gathering Order apostasy and commitment could be identified in the archival data, mainly because tenure in the Gathering Order was for most members brief by definition: with the exception of the core group of family leaders, members of the Gathering Order were expected to either move on to family groups higher in the scale of Shaker commitment, or leave altogether. The records in general are not helpful for identifying the Gathering Order members who left.

Through archival research into the population of the North Family Lot, we identified a number of Second Family apostates and children who were removed from the society, either by their parents or by the Shakers themselves, presumably for behavior problems. We also found many possible apostates and removed children, based on brief periods of residency and association with identified apostates or family groups with known removed children. Many of the suspected apostates in the 1860s through 1880s may have been "winter Shakers"—members of the local community who temporarily joined the Shakers to secure lodging and meals for themselves and their families during times of personal economic hardship. These temporary residents most commonly stayed with the Shakers in the winter, probably leaving in warmer months for seasonal agriculture work. In all, 31 known Second Family apostates were found (Table A12 in Appendix A), along with 8 removed children (Table A13 in Appendix A). In addition, we identified 91 potential apostates and 32 potential removed children.

We found that the Shaker journals from about 1836 to 1860 were the ones to most commonly identify individual apostates. Few Shakers were specifically noted as apostatizing after 1860, although the actual rate of apostasy must have been higher than in the years preceding the Civil War. The lack of attention paid to apostasy in Union Village journals during the years of precipitous decline may have reflected a desire to not dwell on the problem while recording events. Indeed, apostasy may have become so common at that point in the history of Union Village that it evoked little comment by Shaker diarists.

Of the 31 verified apostates, nearly three-quarters were men (20 individuals). There were five recorded cases of apostasy in the period 1836–1839, 10 in the period 1840–1849, and 12 in the period 1850–1859 (Table 16). Only seven of the verified apostates had known ages at the time they left the Second Family: David Clark and John McKee, both 15; George McKee and Lekine Thurston, both 16; John Adams, 18; Elizabeth McCracken, 19; and Luther Babbit, 30. We can say for certain that of the 31 verified apostates, at least six left the Second Family before reaching the age of 20, suggesting that young people raised as Shakers may have been those most likely to abandon the faith for the outside world. For Second Family members, most apostates left after spending between one and five years with the society, and only two verified apostates left after spending a decade as a member of the Second Family (Table 17). Apostates' duration as Shakers is harder to verify, as some may have spent time with different family groups before joining the Second Family.

Table 16. Apostasy rates by verified Second Family apostates, 1836-1859

	Time period			
Gender	**1836-1839**	**1840-1849**	**1850-1859**	**Totals**
Men	3	7	10	**20**
Women	2	3	2	**7**
Totals	**5**	**10**	**12**	**27**

Table 17. Duration of verified apostates as Second Family members

	Duration in years																
Gender	**Less than 1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**Totals**
Men	1	0	6	1	0	4	2	0	1	2	2	0	1	0	0	1	20
Women	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	7
Totals	**1**	**1**	**8**	**2**	**1**	**5**	**3**	**0**	**1**	**2**	**2**	**0**	**1**	**0**	**0**	**1**	**27**

No hard conclusions about apostasy can be drawn from the following brief discussion of the possible apostates, as we cannot be certain that all of the people in this group indeed left the society; they may have moved to different family lots or even different villages. We attempted to weed out the less likely apostates from this group by noting longevity as a Shaker; if an individual held a leadership position; or if the individual was a member of one of the more committed families that joined the Shakers (such as the Babbits, the Parkhursts, the Tibbingheins, and the Darrows).

The list of potential apostates has 49 men and 41 women (Table A14 in Appendix A). The largest number of possible apostasies may have occurred between 1860 and 1869, with 37 potential apostates identified for this period. The next largest number may have occurred in the 1850s, with 24 potential apostates. The number of potential apostates declined sharply in the years following the 1860s, with 12 possible apostates in the 1870s, 9 possible apostates in the 1880s, and one possible apostate in the 1890s. As with the verified apostates, more men than women may have left the society in the 1840s and 1850s, but afterward the ratio of male-to-female apostates seemed to be roughly even (Table 18).

Table 19 presents the maximum durations as Second Family members for the possible apostates. The largest group has a maximum duration of 10 years, but this is because we identified most of the people in the possible apostates group from the census records, and several only appeared on one census. Seventy-three of the 91 possible apostates can have their maximum ages determined at the latest probable date of apostasy. The majority of the possible apostates, 42 people, would have been in their 20s at the time of apostasy, which fits with the known trends in apostasy at Shaker communities in the later years of the nineteenth century. The young adults that were vital for the continuation of the society were exactly the members who seemed to be most prone to leave the Second Family. There are 32 children who were probably removed from the North Family Lot (Table A15 in Appendix A), including seven sets of siblings, who were likely removed with a family group when they left Union Village. With the exception of three individuals, most of the children were possibly removed after 1860, with 10 possibly removed in the 1860s, 9 in the 1870s, and 10 after 1880.

Table 18. Apostasy rates for possible apostates, 1840-1906

	Time period						
Gender	**1840-1849**	**1850-1859**	**1860-1869**	**1870-1879**	**1880-1889**	**1890-1906**	**Total**
Men	5	16	17	6	5	0	**50**
Women	2	8	20	6	4	1	**41**
Total	**7**	**24**	**27**	**12**	**9**	**1**	**91**

Table 19. Maximum duration of possible apostates as Second Family members

	Duration in years																					
Gender	**1**	**4**	**5**	**6**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**18**	**19**	**20**	**22**	**23**	**24**	**27**	**34**	**Totals**
Men	4	0	0	1	3	3	18	3	2	1	2	4	1	1	1	3	0	1	0	1	0	**50**
Women	4	1	1	1	0	1	19	2	1	1	1	0	1	2	0	2	1	0	2	0	1	**41**
Total	**8**	**1**	**1**	**2**	**3**	**4**	**37**	**5**	**3**	**2**	**4**	**4**	**2**	**3**	**1**	**5**	**1**	**1**	**2**	**1**	**1**	**91**

Summary of Demographics at the North Family Lot

The study of the demographics at the North Family Lot has demonstrated that there is a wealth of information about the Shaker population at Union Village that can be examined. Future research can build upon the information presented here, and a detailed study of demographics at Union Village could serve as a needed comparison to the studies of Eastern Shaker communities. The results of our examination of population trends at the North Family Lot shows that while certain broad trends in Shaker demography were experienced at this location (for example, the late nineteenth century population decline and the aging of the population), other trends associated with Shaker populations, such as the feminization of the society in the last half of the nineteenth century, did not seem to be apply as much to the North Family Lot.

Shaker Diet at the North Family Lot

Shaker family lots strove to provide all dietary needs to their members, although at times the Shakers looked to outside sources for food, especially in the later years of the nineteenth century when the population was too small for full-scale agriculture and, in the case of Union Village at the turn of the twentieth century, too elderly to continue to bake bread. At the North Family Lot, members had a variety of resources available to produce food. The North Family Lot property included at least one garden, orchards, tilled agricultural fields, and pastures for cattle. Livestock that contributed to Shaker diet included cattle, pigs, sheep, and domestic fowl. Some wild resources also contributed to the Shaker table, mainly in the form of berries and possibly fish from the mill ponds. They did not appear to practice hunting as a source of animal protein.

We located the federal agricultural census data from 1850 for the North Family Lot, recorded under the name of trustee Stephen Easton. No subsequent agricultural census data for the lot could be found. In 1850, the North Family Lot agricultural holdings included 440 acres of improved land and 225 acres of unimproved land, with a cash value of $80,000, and farm equipment valued at $1,500. The family had 8 horses, 25 milking cows, 8 oxen, 40 additional cattle, and 220 sheep, with a total livestock value of $2,230. In addition to the livestock, the census recorded production of 575 bushels of wheat, 50 pounds of hops, 1,900 bushels of Indian corn, 100 bushels of oats, 8 bushels of peas and beans, 500 bushels of potatoes, 100 bushels of sweet potatoes, 100 bushels of buckwheat, 3,000 pounds of butter, 500 pounds of cheese, and 100 tons of hay. Also reported were 820 pounds of wool and 20 cocoons of silk (United States Census Bureau 1850a).

Probable Diet Components

The following list of fruit, vegetables, grains, nuts, and animal products raised or consumed by the Shakers (Table 20) was compiled by analyzing information from Union Village journals and the pollen/phytolith, ethnobotanical, and faunal information that we derived from the excavations at the North Family Lot. As the list shows, the components of the Shaker diet were varied. Information on the types of meals prepared at the North Family Lot could not be found, but the types of tablewares represented in the ceramic assemblage from the 2005 excavations suggests that the Shakers ate meals consisting of servings of protein, starches, and vegetables. The tablewares identified in the assemblage include plates, bowls, teacups, saucers, pitchers, and platters. Mixing bowls were also present, indicating food preparation activities that involved mixing ingredients, such as baking and preparing stews.

Table 20. Probable components of the Union Village diet

Food group	Component
Vegetables	Corn, peas, beans, squash, skunk cabbage, potatoes, turnips, sweet potatoes, pumpkins, watermelons, carrots
Fruits	Blackberries, elderberries, strawberries, grapes, tomatoes, cherries, apples, peaches, pears
Grains	Wheat, rye, sorghum, buckwheat, oats, barley, hops
Seeds, nuts, and tree products	Chestnuts, walnuts, maple sugar, sunflower seeds
Animal products	Beef, pork, geese, turkey, chicken, mutton, fish, dairy products, eggs, honey

Faunal Remains from the North Family Lot

A total of 2,762 animal bone fragments weighing 25.97 kilograms (57.25 lbs) were collected from the 2005 excavations at the North Family Lot, and we identified a minimum of 65 individual animals from the assemblage of animal bones. The animals positively identified in the faunal assemblage include (minimum number of individuals indicated in parentheses): domestic turkey (2), domestic chicken (1), eastern cottontail rabbit (6), woodchuck (2), Norway rat (13), cow (9), sheep (10), and pig (18). Other animal types present but not identified to exact species include specimens from clams, bony fish, amphibians, perching birds, galliforme birds (a family including wild and domestic turkey, chicken, quail, and grouse), unidentified birds of various sizes, unidentified rodents, squirrels, chipmunks and unidentified mammals of various sizes. The large numbers of rats is interesting, and correlates to an observation by Isaac Youngs during his 1834 visit about the prevalence of rats at Union Village, where he noted a rat hunt in which 34 rats were killed within an hour and a half. Youngs observed that at Union Village, there was a "great abundance of rats here, not only in the buildings, but in the fields & barns & they devour much corn" (Wergland 2006:84).

All of the identifiable livestock remains come from deposits associated with the Second Family, with the highest amount of bone recovered from deposits dated from 1840 to 1849 (786 pieces of bone) and from 1854 to 1860 (622 pieces of bone). A detailed discussion of the methods and results of the analysis of animal remains recovered during the 2005 excavations at the North Family Lot is presented in Appendix B, with an emphasis on diet, butchery practice, and the use of bone as a raw material in craft industries (for items such as buttons and potter's tools).

The results of the faunal analysis confirmed that the North Family Lot Shakers raised cattle and sheep primarily for dairy and wool production, respectively, while pigs were raised as breeding stock and for use within the community. By analyzing the types of cuts and ages of the animals at death, we can tell that the cattle and sheep in the assemblage were mainly older individuals, who were probably slaughtered after they were no longer productive, either for breeding or for producing milk or wool. On the other hand, the pig group did include several young individuals, indicating they were primarily raised for use at Union Village. The types of cuts present in the assemblage show that, in general, the amount of high-ranked or prime meat cuts as well as waste cuts increased over time, and may be correlated to the aging of the Shaker population and the desire for more tender cuts of meat, either because of personal preference or the loss of teeth due to age.

What is interesting about the data is that contrary to the prohibition against pork in the 1841 Millennial Laws, butchered pig remains are present in every Shaker deposit, including the deposits from the late 1840s and early 1850s, when the ban should have been followed most closely. Indeed, while the 1850 agricultural census for Union Village includes no pigs at all, which would be in keeping with the Millennial Laws, journal entries in the 1840s commonly refer to the butchering of hogs for both consumption and sale. It appears that the Eastern Ministry's rules against the eating of pork held little weight at Union Village until 1848, when the restriction against pork was finally enforced. The archaeological record indicates that even after the supposed community-wide compliance of 1848, pigs were still consumed at the North Family Lot, with butchered-pig remains present in deposits dated to 1850 and

1854. However, it is also possible that the butchered-pig remains are those from food discarded by a hired hand, who would not have been required to follow the laws.

Refuse Disposal and Adherence to Shaker Values at the North Family Lot

One aspect of the Shakers at the North Family Lot that is best addressed through archaeological evidence is that of the patterns created by the disposal of everyday household refuse. We attempted to identify possible patterns that could be present at the North Family Lot by looking at previous excavations for other Shaker sites and at what we know about the Shaker's attitudes and rules about order and waste disposal.

Kim McBride's work at Pleasant Hill in Kentucky suggests there should be very little accumulation of rubbish in open areas, and any artifacts present should suggest casual loss during everyday activities (McBride 1995). At Canterbury Village in New Hampshire, Starbuck found that Shakers often disposed of their waste in the cellars of abandoned or dismantled buildings (Starbuck 2004). In general, Shakers are thought to be intolerant of rubbish lying around and would dispose of their waste in specific locations, such as rubbish pits. However, exhortations in the Millennial Laws about proper waste-disposal practices could reflect that at least some Shaker communities were not strictly adhering to these values, and rules were therefore needed to enforce them. In particular, the 1845 edition of the Millennial Laws include prohibitions about leaving "filthy rubbish" lying about around houses, shops, and in the streets and yards (Andrews 1963:280, 283). Particular days were set for cleaning the street in front of the meeting house (Andrews 1963:280).

Since we knew that the Shakers should, for the most part, be very particular about waste disposal, we could speculate where refuse might be found and what kind of patterns the disposal might take. We expected that the yard areas between buildings would have fairly low artifact densities and no evidence associated with the Shaker occupations for intentional disposal of trash as a scatter of artifacts across the yards. Any cellars filled in before the Otterbein Homes period should contain refuse from the Shaker period. We did not expect to find rubbish pits within the bounds of the area we excavated during the 2005 fieldwork; such pits were thought to most likely be present along the edges of the North Family Lot, outside of the project area, rather than among the buildings.

Artifact Disposal Patterns

Although a limited area of the North Family Lot was excavated, focusing on the building locations, four artifact disposal patterns located in different areas of the North Family Lot were identified through the analysis of the excavation data (Figure 5):

- Disposal of waste in rubbish pits
- Disposal of waste in cellars of abandoned structures
- Gradual accumulation through casual loss in yards
- Intentional, short-term disposal in the Garden area

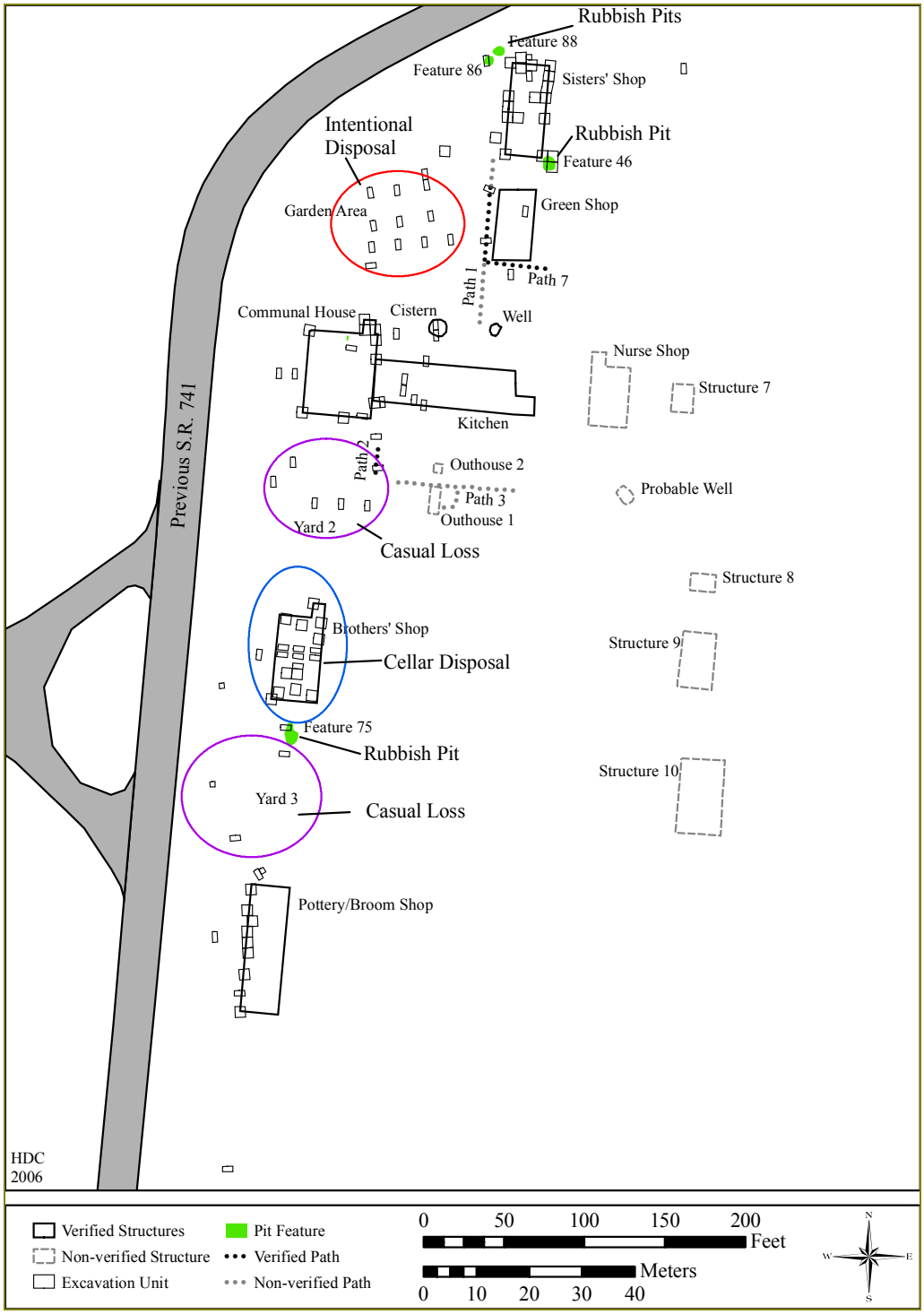


Figure 5. Artifact disposal patterns at the North Family Lot

Disposal of Waste in Rubbish Pits

Rubbish pits were present within the project area in areas close to buildings: three near the Sisters' Shop, with two pits associated with the construction of the shop and one predating the shop and possibly associated with the Green Shop; and one at the south edge of the Brothers' Shop. This pits are shown as green dots in Figure 5. The rubbish pits appear to be one-time events of disposal, with all the fill material deposited at the same time. That the rubbish pits were placed near buildings is interesting in itself, as it runs against our expectations that Shakers would dispose of their rubbish at points removed from the core living and working areas.

However, the entire lot was not subject to archaeological investigations, and so we cannot say if rubbish pits occur *only* near buildings; most of the pits could be placed away from the buildings, outside the project area. It is possible that the excavated pits were placed near buildings mainly around construction time as a way for the Shakers to dispose of excess or unusable material.

The rubbish pit near the Green Shop, however, does not seem related to building construction—it contained a variety of different artifacts pertaining to domestic activities and the pottery, as well as to architecture (such as nails and brick fragments; the architecture-related artifacts are discussed in more detail in volume 2, *A Clean and Lively Appearance—Landscape and Architecture of the North Family Lot*). Also, at one time, this pit might have been at the edge of the lot, as the date we calculate that it was dug and filled is ca. 1840. At that time, the pit location would have been at the edge of the buildings known to be present at the domestic core of the lot.

Disposal of Waste in Cellars and Abandoned Buildings

The Shaker use of cellars as waste receptacles during the demolition process was noted by Starbuck at Canterbury, New Hampshire (Starbuck 2004). The corresponding example at the North Family lot is the Brothers' Shop, the only building with a filled cellar we excavated that was demolished during the Shaker occupation (the blue oval in Figure 5). The artifacts present at the level of the floor seem to be representative of items that had accumulated in the cellar over its period of use, which were then left in place when the Shakers filled the cellar with demolition debris. No concentrated deposits of artifacts from the late nineteenth century were found below the brick fill in the cellar. Deposits on top of the cellar fill of brick consist of household rubbish postdating 1892 and could be related to the use of cellars as waste repositories, but contrary to our expectations, it seems clear the Shakers did not actively intend to dispose of trash in the cellar before it was filled with demolition debris.

Gradual Accumulation Through Casual Loss

Unit excavations in Yards 2 and 3 (indicated by purple ovals in Figure 5) were not tested extensively with the purpose of discovering artifact patterns; however, they did show distributions that may indicate casual loss of rubbish in these areas, a slow accumulation over the years as Shakers cleaned their domestic and shop buildings. Casual or uncontrolled loss can occur when pieces of broken ceramic wares and glass wares are accidentally dropped,

such as when refuse is transported to a disposal site. Architecture-related artifacts, such as nails, may represent casual loss during the course of building construction. Casual loss is indicated by a lack of stratification of datable artifacts and a wide date range among the artifacts found.

Yard 2

Two groups of artifacts with specific functional associations were identified in the 207 artifacts recovered from excavations in Yard 2: the Domestic group, containing 62 artifacts associated with household functions such as food preparation and service; and the Architecture group, containing 122 artifacts that were elements of structures, with wire-drawn and machine-cut nails present. The wire nails indicate that the casual discard continued into the twentieth century by Otterbein Homes occupants, as all Shaker construction had long since ceased at the North Family Lot by the time wire nails became commonly used in construction in the 1890s. A long period of discard is indicated by the co-occurrence of artifacts from earlier in the nineteenth century, such as pearlware and redware sherds, with solarized glass dating to the last years of the nineteenth century and the early part of the twentieth century.

Yard 3

More artifacts were present in Yard 3, between the Brothers' Shop and the Pottery/Broom Shop, totaling 648 artifacts. However, 413 of these artifacts are related to the pottery and consist of redware waster sherds and kiln furniture. The remaining artifacts include 93 items in the Domestic group and 108 artifacts in the Architectural group, along with artifacts related to personal use and wastewater management. The Domestic group consists mainly of white-bodied earthenware sherds, and the Architectural group is almost entirely cut-nail fragments. The decoration on the ceramics indicates a discard period in the mid-nineteenth century. The high amount of pottery-related artifacts suggests another possible waste pattern associated with mass-production industries, which was more lax about where waste products were discarded than was general Shaker practice. This pattern would be more in line with general industrial disposal associated with small industries.

Intentional, Short-Term Disposal

In the Garden Area, we found what appears to be evidence of ca. 1830s–1850s waste disposal in the area just north of the Communal House (the red oval in Figure 5). We tested this area intensively through unit excavation to locate evidence for the Garden Shop that appears on the 1835 Kendall map of the North Family Lot. The garden area artifact assemblage appears to be dominated more by domestic artifacts than architectural artifacts, with much greater numbers of domestic artifacts occurring in the southwest corner of the excavated area. This distribution of artifacts seems to indicate that household rubbish was disposed of in this area, with the greatest densities of artifacts in the area closest to the Communal House cellar entrance, indicating the probable point of origin of the artifacts in the Garden Area. The majority of domestic artifacts disposed of in this area are highly fragmented ceramics, mainly pearlwares and redwares, with a few whitewares present as well. Very few sherds could be identified to the type of vessel they were part of, probably indicating a high degree of breakage after discard into the Garden Area. This breakage may

have been caused by tilling. Taking into account the time lag effect on ceramic artifact deposition, the majority of household waste disposal in the Garden Area took place in the 1820s through the 1850s.

The disposal of household waste in a presumably open, public area runs contrary to the prevailing ideas we have about Shaker waste disposal patterns. McBride notes that for Pleasant Hill, the Shaker archaeological record displays a large amount of structural features and yard areas lacking midden deposits, which is unlike the general pattern for early to mid-nineteenth-century secular sites (McBride 1995:392). At the North Family Lot, however, we see a definite midden in an open area that notably lacks architectural features, a disposal pattern similar to contemporary non-Shaker domestic sites. This seemingly atypical disposal pattern may be related to the occupation of the North Family Lot by the less experienced Shakers of the Young Believers and central Gathering Order, who may not have been strictly following the official waste-disposal practices.

Although the high amount of redware present in the Garden Area assemblage may have been deposited after the Second Family occupied the North Family Lot, beginning in the late 1830s, we cannot assume that the artifact assemblage is only associated with the Second Family, as it is likely that during their tenure, members of the Gathering Order used redware vessels produced at Union Village. The Millennial Laws were reissued in 1845, and there is a general lack of artifacts definitely associated with the Shaker occupation that we can date to after 1850; this lack may reflect the renewed interest at that time in physically representing the Shaker value of order on the landscape, and new efforts to adhere to the rules.

CHAPTER 4. CRAFTWORK AND AGRICULTURE AS A MEANS FOR SELF-SUFFICIENCY AT UNION VILLAGE AND THE NORTH FAMILY LOT

Shaker communities are often represented as inwardly focused on community and spiritual life; however, they also looked to the outside world as a source of revenue by marketing Shaker-made products to local consumers. Shaker trustees or deacons, who handled business matters and who had direct contact with the outside world, were often the ones charged with selling Shaker products. Since families at Union Village and other Shaker settlements were intended to be largely independent economically, the level of prosperity and standard of living at Shaker family lots was determined by the success or failure of the industries and agriculture of that lot or group of lots. This chapter describes the craft and agricultural products that the Shakers developed, both for subsistence and for profit.

Craft Production

Agriculture, especially stock farming, is typically viewed as the major economic pillar of Union Village (Bauer and Portman 2004), but the craft industry was also an important source of revenue. At Union Village, the Center (Church) family controlled the craft industries of several families, including the North House, East Family, South Family, and Square House. The Second Family was apparently responsible for only the North Family Lot. Profit-based craft industries were most commonly used as economic support for specific Shaker families, but the income could serve other purposes too. In some cases, craft industries were used by Shaker leaders to raise expedient cash; for example, in 1822, Father David Darrow, spiritual leader of the Western Shakers, ordered Union Village inhabitants to produce 500 straw hats. Darrow wanted to use proceeds from the hat sales to defray the printing costs of the next edition of the *Testimonies of the Second Coming of Jesus Christ,* the book that served to present the Shaker faith to the outside world (Union Village Compiler 1898:159–160).

The Origins of the Craft Industries at Union Village

Craft industries appeared early at Union Village and played an important role in its economic history. Some craft industries at Union Village paralleled the rise of the nation's "outwork" business model, a widely used form of contract work that employed manufacturing workers in their homes, a result of various embargo acts that were passed before and during the War of 1812. Since imported British textiles were unobtainable, domestic production had to fill the void, and many manufacturers, in particular those of woven textiles and clothing, contracted with individuals to make certain items, thereby sparing themselves the expense of establishing new lines of production. The individuals contracted were usually either young single women in urban settings or rural women, all who had time to work for extra income between agricultural cycles. In the case of textiles, yarn was distributed by mills or

mercantile stores to these individuals, who then wove them into cloth and rugs, or even mittens, gloves, and socks. In the traditional outwork system, the finished goods were returned to the mill for cash, or to the store, usually for credit. This system was the dominant method of textile production in the industry until the 1830s, when mechanization began to make it economically unfeasible. However, the outwork business model continued in the 1830s and flourished with a new product: bonnets made from palm leaves, called "palm bonnets" (Dublin 1994:34).

The Shakers had a number of competitive advantages in this market because their system, while similar to the outwork system, was entirely self-contained within their community. For woolen goods, unlike many of their competitors, they controlled the source of their raw material and did not have to pay an agent, or suffer from the predatory pricing that was common in the store credit system. In addition, the Shakers who made the crafts did not receive any wage or compensation. These factors lent the trustees an advantage when pricing goods in the marketplace.

Several sources document early craft industry at Union Village, indicating that for-profit production was started fairly early in the history of the settlement. Josiah Morrow's *History of Warren County* (1882) has a chronology of Union Village events, and it records that a blacksmith shop was established as early as 1806, and work on the first sawmill in 1808. This mill was in full production by April 1808. The Gathering Order agreed to operate the sawmill by taking orders from non-Shakers for profit. In 1808, the sawmill produced 48,376 board feet of lumber, with 24,876 board feet of lumber sold and the remainder kept by Union Village to construct the meeting house and use for other purposes (Financial Records 1820:475).

In 1813, a carding house and machine were built, and grist and oil mills were started in 1815 and 1816 (Morrow 1882:448). Cooperage work (making and repairing wooden casks and tubs) appeared in the financial accounts in 1813 when Samuel Sering was noted for making and selling pails, churns, and barrels made of cedar and pine (Financial Records 1820:483). The records also indicate that the broom maker, identified only by his initials, S. K., produced approximately eight dozen brooms during the period of March 1813 to April 1813 (Financial Records 1820:492) Other products produced and sold in 1813 and 1814 include nails, saddles, bridles, hats, tables, chairs, and a coffin (Financial Records 1820:483–492). Bauer and Portman found that seeds were sold at Union Village as early as 1813, and that by 1816 the seeds were placed in paper packages for easier sale and transportation (Bauer and Portman 2004:187). Bauer and Portman also reported the sale of clay smoking pipes from Union Village as early as 1813 (Bauer and Portman 2004:134). It is clear that a variety of products were being produced for sale to outsiders early in the history of Union Village.

The ca. 1900 *History of the Principal Events* for Union Village also has some information on early industry. Industrial accomplishments listed for the year 1818 include burning 350,000 bricks and producing over 1,980 gallons of linseed oil. In the same year, a buzz saw and slitting machine were started at one of the village sawmills (Hampton 1900:388). Professions at the village for the ca. 1818–1820 years include blacksmiths, masons, stone cutters, carpenters, cabinet makers, tanners, carders, spinners, weavers, tailors, clothiers, and fullers

(to "full" was to make a fabric thicker by applying moisture, pressure, and heat) (Hampton 1900:389).

An 1819–1820 financial ledger from Union Village lists the for-profit market activity by Union Village at that time. Products sold for income included shoe leather, pine buckets, pine and cedar churns, wheels, hoes, brooms, brushes, onion seed, garden hoes, butter ladles, cherry and walnut lumber, whiskey, shirts, cattle, flour, and mittens. The community spent money in 1819 and 1820 on day laborers, dirt excavation, and corn. In addition, Union Village provided room and board for their day laborers, for a fee. While room and board included meals, the laborers could also buy whiskey and tobacco (Financial Records 1820:591–609).

The *History of Warren County* also mentions that three thousand pounds of wool were carded in Union Village in 1821 (Morrow 1882:448). While certainly some of this production was intended for clothing for the community, some of it may also have been used as a marketable product. By 1822, an ox-powered mill had been built for running a buzz saw and for operating fulling machinery. An attempt was also made in the early 1820s to forge steel at Union Village, but the resulting product was not satisfactory, and they abandoned the experiment (Hampton 1900:392). Advertisements for Union Village pottery have been found from as early as 1824 (Bauer and Portman 2004:134). The pottery is discussed in detail in volume 4 of this series, *Simplicity Comes in All Forms—The Shaker Ceramic Industries of Union Village, Ohio*.

Economic Structure, and Competition and Cooperation Between Families

The structure of craft production at Union Village changed over time in response to different economic climates and shifts in community demographics. Originally, the various family lots operated their own relatively independent business interests. The ca. 1900 history of Union Village states that after a reorganization of the village in July 1828, the West Frame Lot, West Brick Lot, and East House were combined into one economic unit or interest under the purview of the Center Family. The North Family Lot and West Lot formed a second interest as the Gathering Order (Hampton 1900:405).

The second community-wide reorganization led to further modifications to this system in the mid-1830s. Abigail Clarke wrote in her diary about changes in the Union Village economic and organizational system, changes decided upon at the end of 1835 and implemented in January of 1836:

> Our two eastern deacons (Daniel Hawkins and Stephen Wells) strongly recommended to the ministry here a change and separation of the large interest into first and second families after the manner of the eastern societies; this recommendation induced our ministry to call a meeting in the evening, consisting of the Centre or first family eldership and the office deaconship to deliberate on the subject. On the part of this counsel it was unanimously agreed to organize Union Village after the form and manner of the church and society at New Lebanon; that is to constitute two families in the church or two interests – the first family or interest proposed largest were to occupy the three large brick dwellings (brick house south house and north house) the old frame center house…

> The Second Family or interest to occupy the North Lot premises and buildings in a separate interest, this family to be composed of the two families or departments of the church at the West Branch, or Section, and those buildings and premises in the future to be occupied by the two families now at the north and west lots in a separate interest, leaving the West Lot vacant (Clarke 1805–1890).

Before the village was reorganized at the beginning of 1836, a "large interest" (which appears to mean the Center Family) exercised economic control over most of the other families (Clarke 1805–1890). A Second order or family had been established in 1812. The separate interest formed by the East, West Brick, and West Frame houses in 1828 was the forerunner of the Second Family established at the North Family Lot in 1836. The Second Family had its own industries and finances, and had responsibility for producing and marketing its own products.

There is also evidence that the North Family Lot was a distinct economic unit while it served as a division of the Gathering Order, as a Young Believers family from 1815–1828, and as the main Union Village Gathering Order lot from 1828–1835. An anonymous North Family Lot letter to Matthew Houston in 1829 implies that the North Family was responsible for paying off its own debts and for undertaking craft work to pay off such debts (Union Village Correspondent 1829:406–407).

Craft industries between Center and North families overlapped, making it possible for the Center and North Lot families to cooperate with each other, have parallel operations, or even compete. Although sources are not always clear on this situation, it appears that sometimes the families may have cooperated, and sometimes they produced the same items separately and then sold and marketed them separately. The most significant example of overlap between the two families was broom making, a craft practiced on a very large scale by the Center Family throughout much of the nineteenth century. Broom production and sales by North Family Lot trustees was frequently discussed in North Family Lot journals in the 1840s and 1850s.

No evidence was found in diary entries of tension or conflict between the two families when they pursued the same clients for sale of their brooms or other similar items. In fact, Center Family trustee Peter Boyd's letter book from the 1850s indicates a fair amount of cooperation in both external marketing and trade between the families. The period between 1828 and 1836 was a time when the service industries at Union Village and the North Family Lot were streamlined and retrenched. After 1828, the North Family Lot discontinued its blacksmith shop, wagon shop, and tanning operations; however, blacksmithing and tanning continued under the auspices of the Center family, and it may be that only one of each of these shops was needed to supply the needs of the entire community at Union Village. In addition to smithing and tanning, the Center Family occasionally provided cooperage and meat-packing services to the North Family Lot. Rather than have each family or interest be completely self-sufficient, the Center Family appears to have provided a support role for the many basic services listed above, especially after 1836, leaving the North Family Lot and South Family to concentrate on agriculture and craft industries, possibly to help insulate the Center Family from the worldly influences related to outside market interactions.

For some crafts, there was no overlap between Union Village families. In particular, the pottery at Union Village was clearly associated with a specific group of skilled individuals and always limited to one family lot—it was established at the West Brick Lot in the early 1820s and then moved to the North Family Lot as part of the village reorganization in 1836. In contrast, broom making was common to several Union Village families. Broom makers appear on the North Family Lot federal census data from 1850 and 1860, and there are numerous North Family Lot diary references to broom making. The original North Family Lot Smith Shop, converted to a pottery as part of the 1836 reorganization, was remodeled again in 1852 to serve as a broom shop. At the same time that all of this broom-related activity was occurring at the North Family Lot, the Center Family was also operating a sizable broom-making operation, and their broom factory was large enough to be individually labeled on an 1867 atlas map of Turtle Creek Township. The Center Family's broom factory was one of the longest-lasting Union Village craft industries. While the 1870s and 1880s were a time of decline for many of the Union Village industries, as late as 1886, newspaper pieces written by Union Village spokesman Oliver Hampton refer to the still-flourishing broom industry at Union Village (Hampton 1886:1). North Family Lot First Eldress Amy Slater's final diary entries from September 1890 also contain references to the harvest of broomcorn (Slater 1890). The South Family manufactured brooms too, up until 1853, but the reason they stopped is not known (Boyd 1851–1862:276). The marketing, sale, and transportation of brooms were handled by the individual trustees of the respective families.

As mentioned before, we found no diary accounts that recorded any tension or struggle between the Center and North Lot families when they marketed their craft products to the same clients. Instead, the various Union Village interests were often willing to refer their clients to other Shaker producers; in many instances, trustees in each interest in Union Village referred clients to each other. Peter Boyd, as a trustee with the Center Family, referred a broom customer to both the South Family and North Family lots when he had run out of brooms in February of 1851. In fact, he even suggested contacting the trustees at the nearby Shaker village of Whitewater in Hamilton County, should brooms be unavailable in Union Village (Boyd 1851–1862:239). Boyd also offered that the North Family Lot had older heifers for sale when the Center family only had yearlings (Boyd 1851–1862:269), and he recommended that a client contact the South and North Family lots for garden seed, since the Center Family did not produce that item (Boyd 1851–1862:239).

The different Shaker communities and families cooperated in sharing technical knowledge and skilled personnel. Micajah Burnett, from Pleasant Hill, Kentucky, was well known for his architectural and engineering skills. Burnett traveled to various Shaker settlements, including Union Village in 1842. In addition to his architectural abilities, Burnett specialized in making planing machines that produced oval boxes and half-bushel baskets, and he installed a planing machine at the Union Village Center Family (Sharp 1805–1880). At Union Village, Timothy Bonnel and Abner Bedle were known for developing machinery for craft production. Union Village sent Bonnel and Bedle on trips throughout the region to other Shaker settlements both to make and install various types of manufacturing equipment.

Known occupations from the available census data on the Second Family men included the following: farmer, herdsman, teamster, botanist, teacher, broom maker, shoe maker, stone

mason, potter, basket maker, painter, machinist, chandler, druggist, and artisan. Two men were also listed as teachers, and one man was characterized as a merchant. For the women, census data characterized two members as "doctoresses," one each as a seamstress, a dressmaker, and a bonnet maker. In general, occupations for female Shakers were not recorded or were simply listed as "housekeeping" (United States Census Bureau 1850b, 1860b, 1870b, 1880b). It is clear that some Shakers were more specialized than others. For example, Joseph Eastwood is always listed as a mason in census records, and his name is mentioned in several diary accounts in association with activities like laying walks and building wells and cisterns. Since no other masons were recorded in the census data for Union Village, it seems likely that Eastwood learned the mason's trade before becoming a Shaker and then applied the trade while there. Other types of work like broom making or medicine production may have been learned by individuals after they joined the Shakers, with some practicing several trades.

Craft Industries at the North Family Lot

Young Believers Era, 1815–1828

Little information was found during archival research about the earliest years of the North Family Lot when it was occupied by the Young Believers, a satellite family of the Gathering Order. No diaries of members of the Young Believers are known to exist. The intended functions of the family, both to indoctrinate new members into the Shaker belief system and to provide them with a place to finalize their worldly business and obligations, meant that membership in the Gathering Order was supposed to be temporary, lasting only a few years. Only a few core members who served as instructors and family leaders were permanent members of the Gathering Order. The transitory nature of membership in the Gathering Order suggests that diaries and journals were probably not kept or even encouraged. The permanent membership may have kept journals, but none are known to exist. In addition, the Gathering Order families, consisting mainly of people who had not yet signed the Shaker covenant, were often excluded from membership tallies, and their activities in general went unrecorded by known Union Village diarists. Thus, we have little specific information on what sorts of craft industries were practiced by the Young Believers that lived at the North Family Lot.

The North Family Lot Brothers Shop was built in 1826, shortly after the communal dwelling, so it is clear that some type of shop or craft activity was taking place at the North Family Lot in the mid-1820s. The work was probably intended to fill the needs of the North Family Lot members, as well as to manufacture products that would be sold to the outside world for income to pay off expenses incurred in the development of the lot.

An 1829 letter addressed to Matthew Houston, written by an unknown writer at the North Family Lot, mentions the period when the North Family Lot was still the home of the Young Believers. The letter indicates that the blacksmith shop provided iron wagon wheel parts, but makes no mention of any other possible craft activities that were focused on returning a profit (Union Village Correspondent 1829:406–407).

Gathering Order Era, 1828-1835

The main Union Village Gathering Order group was moved from the East Lot to the North Family Lot in 1828. According to the 1829 letter to Houston, the main industries of the North Family Lot during the Gathering Order era were textiles (including rug, yarn, and window blinds manufacture), manufacture of wagons and wagon wheels, blacksmithing, and tannery products. The letter's inclusion of a tannery as a North Family Lot industry is somewhat puzzling; a tannery is indeed depicted on the 1829 *Map of Union Village*, but it is part of another family lot known as the Square House (Figure 6), which was occupied by a separate family supposedly associated with the Center Family. No other tanyard appears on the 1829 map.

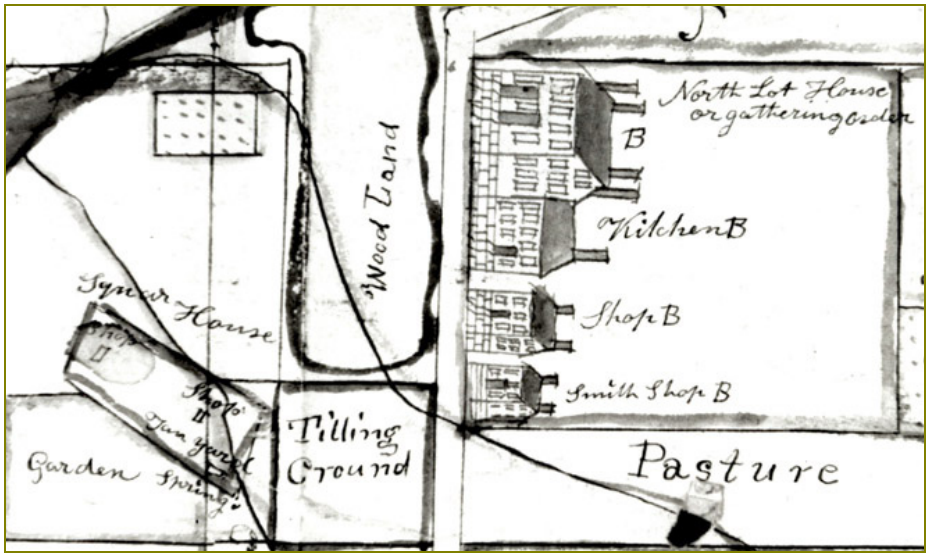


Figure 6. Detail of 1829 Union Village map, showing location of the Square House Lot in lower left corner

New Lebanon residents Rufus Bishop and Isaac Youngs visited Union Village in 1834. In his travel journal, Youngs recorded a vibrant Union Village community with a variety of cottage industries and agricultural activities, some of which were not practiced by most other Shaker communities (Bauer and Portman 2004:103). Union Village was known for its pottery, which was not practiced at the industrial level (or at all) at any other Shaker communities according to our current understanding (Bauer and Portman 2004:134).

At the time of the Bishop and Youngs visit in 1834, the Union Village pottery was still located at the West Brick Lot, but it would be transferred to the North Family Lot as part of the 1836 reorganization of the village. The North Family Lot was recorded with a few shop buildings, including the Brothers' Shop, the Smith Shop, the Garden Shop, and a log shop building (Figure 7).

The 1829 letter indicated that while craft activity increased after the central Gathering Order arrived at the North Family Lot, start-up costs for the shops were high and increased the debt, and work to construct the shop buildings pulled labor away from craft industries that were

already established. Toward the end of the letter, the writer stated that broomcorn was out (indicating that it was out of production), rug making for sale was behind schedule, and attempts had been made to produce window blinds for sale. The production of wheels, presumably in the wagon shop, had been halted since no irons were available. This discussion of the shops and industries in the context of the family's financial health, and specific mention of rug and blind production for commercial sale, suggests that the aim of some of the North Family Lot industries was to produce income to help support the family (Union Village Correspondent 1829:406–407). Like the other lots at Union Village, the North Family Lot was expected to be self-sufficient and to take care of its own debts and building construction costs, through its craft production revenues and farming.

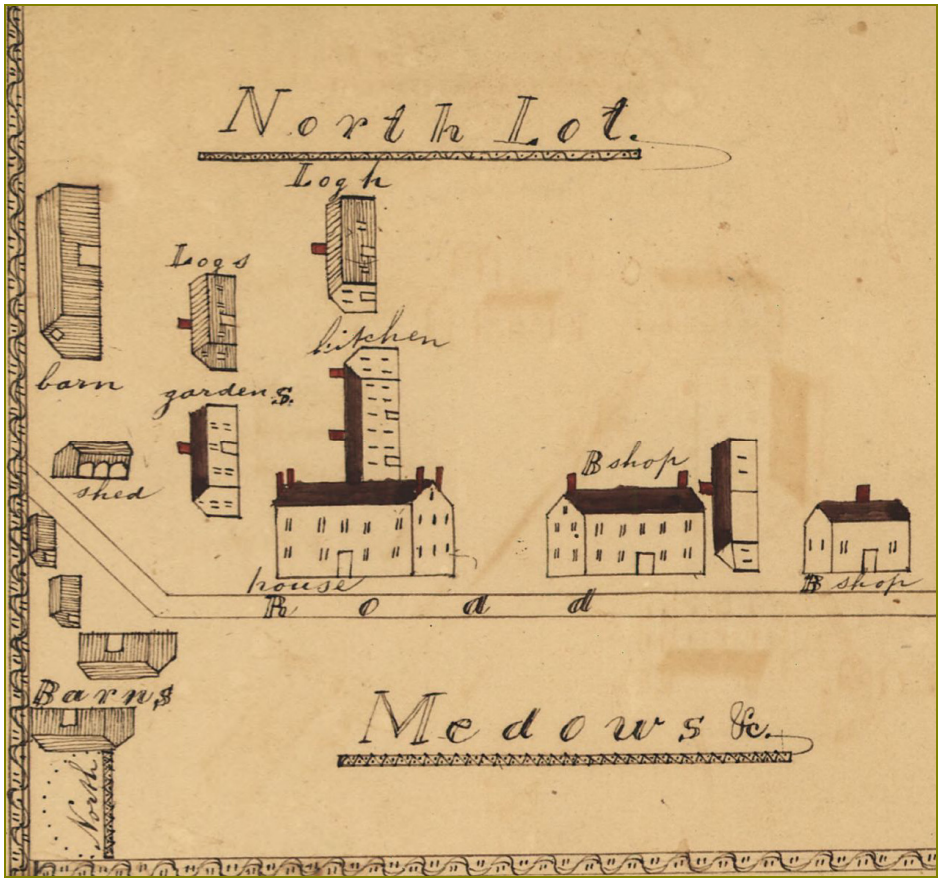


Figure 7. 1835 reproduction of Youngs' 1834 sketch of the North Family Lot

Second Family Era, 1836-1906

This mix of craft industries changed at the North Family Lot when Union Village was reorganized at the beginning of 1836, and the Second Family replaced the Gathering Order there. Many of the men and women who were Second Family members possessed different skills and craft knowledge than the members of the Gathering Order—because the membership of the Second Family was drawn from the West Frame and West Brick lots, the Second Family contained members who had years of experience operating craft industries

that could generate profit and sustain a Shaker family. As a result, beginning in 1836, the type and scale of industries at the North Family Lot abruptly changed.

Based on the extensive diary references to construction and product deliveries at the North Family Lot from the 1840s through the 1860s, the Second Family was successful in many of its craft industries. Diary references from the early 1840s at the North Family Lot relate a life of industries and new construction of shops, as well as continued relocation of old buildings. Products sold by the trustees of the Second Family at this time were mainly herbs, brooms, pipes, pottery, rakes, and herbal medicines. An 1848 reference indicates that Second Family sisters were raising silkworms (Union Village Diarist 1836–1857:438). Like pottery, silk had been produced at the West Brick House before the Second Family moved to the North Family Lot in 1836. Federal industrial census data from 1850 contains yearly production in industrial products for market for Union Village. Since the names of the trustees were used with the census entries, it is possible to isolate the data from the North Family Lot. The major products of the North Family Lot reported on the 1850 census included brooms, wool, herbal medicine, lumber, flour, and other milled products (United States Census Bureau 1850a).

The business model of the North Family Lot also changed after the 1836 reorganization. They ceased manufacturing products that they conceivably could have purchased on the open market at a cheaper price than they could make it. The wagon shop was closed, and the tannery was no longer mentioned as associated with the North Family Lot. The North Family Lot concentrated instead on outwork or craft products that could be produced by virtually everyone (with the exception of the pottery) during periods of inactivity in the agricultural cycle. The interplay and flexibility between craft industries and agriculture meant there was no reason for anyone to be idle.

Vegetable and plant extracts for medicinal purposes were produced at least as far back as 1832 in Union Village (MacLean 1907:74). However, the beginning of the 1840s marked the industrialization of the medicinal businesses in Union Village. In 1840, the anonymous North Family diary recorded that the Second Family began boring logs to convey water to the still house in order to process herbs into medicines (Union Village Diarist 1836–1857:375).

Raw materials for craft manufacture were often produced within Union Village, but sometimes demand for raw materials was greater than what the community could produce. Before the 1840s, Union Village was able to grow all the broomcorn they needed for broom production, but after the early 1840s, the demands of production outstripped what Union Village was able to grow, and the North Family Lot started to buy raw materials in the 1840s. The North Family Lot first purchased broomcorn from other Union Village families, such as the West Frame Lot. Lumber for broom handles was procured from various local sources and not harvested from Shaker woodlots, and was initially turned on the lathes built during the 1830s (Sharp 1805–1880:202). By 1851, the Second Family was buying 18,000 broom handles at a time, delivered by rail car from the Mill Family at the North Union Shaker settlement in Cuyahoga County, Ohio (Union Village Diarist 1836–1857). Although the North Family Lot turned to sources outside of Union Village, they still sought to patronize Shaker communities for supplies to use in craft industries.

In addition to supplies for broom manufacture, other agricultural products used as raw materials in the craft industries were more cost-effective to purchase on the open market. During the 1840s, flax was usually purchased rather than produced, with North Family Lot eldress Amy Slater obtaining flax from Dayton. There are no accounts of harvesting flax during the 1840s; whereas in 1825, all the North Family Lot sisters had turned out to pull 20 acres of flax.

Products sold by the trustees of the Second Family in the 1840s and 1850s included herbs, medicinal oils, brooms, smoking pipes, pottery, textile products, and prepared foods. Silk production was an area that members of the Second Family engaged in at the West Brick Lot. At the North Family Lot, sisters raised silkworms in the former wagon shop space in the basement of the Brothers' Shop, mainly for sewing thread (Union Village Diarist 1836–1857:438) In her diary, Amy Slater frequently mentioned activities related to wool production, including shearing sheep, washing and spinning wool, and dyeing cloth. Although some of the cloth was probably used within Union Village to produce clothes and rugs for Shakers, Slater mentioned the preparation of white flannel for sale in 1846 (Slater 1845–1890:599). Slater also referred to trimming, preparing, and loom-weaving carpet for sale. She reported on January 24, 1849, that trustee Stephen Easton went to Lebanon with 42 yards of carpet to be sold, and returned with five kegs of lard for wool, grease, and soap (Slater 1845–1890:612–621).

Many diary entries mention trips to Lebanon or Cincinnati to sell products by Stephen Easton and other Union Village trustees, indicating that the Second Family was marketing its own goods to clients outside of Union Village, rather than turning them over to the Center Family. In respect to competition between the North Family Lot and Center Family for markets, this separate marketing may have occurred for some products and not for others. The North Family Lot was clearly the only family at Union Village to have a pottery. On the other hand, the Center Family and North Family Lot both appear to have produced brooms at the same time during the mid-nineteenth century; broom making was one area where trustees for the Church Family and Second Family both ventured out into the outside world with the same product for sale.

However, it appears that the Shakers took steps to avoid competing for market share with other Union Village families and interests. Archival sources indicate that the North Family Lot and Center Family trustees sold their brooms to different agents in different places, but for the same price. In 1851, Stephen Easton and the North Family Lot sold the vast majority of their brooms to A. J. Tyler in Cincinnati (Union Village Diarist 1836–1857). Peter Boyd and the Center Family, according to Peter Boyd's business correspondence, sold almost all their brooms to Wightman's in St. Louis, Missouri (Boyd 1851–1862:275). The price of the brooms from each family throughout the early 1850s is the same for the Cincinnati market. The selling price for brooms was slightly higher in St. Louis, but there is no evidence that the North Family Lot entered that market. The Center Family also operated a woolen mill, and textiles were an area in which the North Family Lot was active as well.

In summary, the research from this project indicates that the North Family Lot, both during the tenure of the Gathering Order and the years of the Second Family, was a mainly independent entity in the area of operating craft industries and selling the goods for profit. The members of the community worked to produce many items for sale, including cloth, yarn rugs, smoking pipes, redware pottery, brooms, and peppermint oil, among others. In many cases, these items were taken to larger communities like Cincinnati and Lebanon for sale by the trustees of the North Family Lot. The trustees distributed the products, depending on their popularity and availability, locally and throughout the region. Textile products were often sent for retail sale in Cincinnati (Union Village Diarist 1836–1857:398), smoking pipes were sent to the elders at New Lebanon (Union Village Diarist 1836–1857:377), and potters' ware was sold locally and as far away as Mt. Pleasant, Kentucky. Garden seeds were distributed as far north as Pittsburgh and south to New Orleans.

Industries and North Family Lot Leaders

One important question about North Family industry is whether leadership changes influenced the course of craft industries. This relationship is somewhat difficult to gauge, for changes occurred frequently in the history of the North Family Lot during its occupation by the Second Family. In many cases during the 1840s and 1850s, the highly influential first elder of the family was replaced every few years, making it difficult to attribute the course of industry at the North Family Lot to the influence of a particular leader. Trustees and second elders also changed positions fairly frequently, although Stephen Easton held the position for a fairly long period of time in the 1840s and 1850s.

Changes in Elders

At the beginning of the Second Family period, Eli Houston was the male first elder of the lot (Sharp 1805–1880:190). Initially, Sally Sharp served as the female first eldress, but she left after a month to serve in the ministry at the Center Family and was replaced by Caty Boyd. Due to ill health, Houston was briefly replaced by Ashbel Kitchel in 1837 (Sharp 1805–1880:201). Houston returned in 1838 to serve as first elder until he was replaced by Stephen Easton in 1842. The tenure of Houston represented the time when the Second Family set up new facilities for its pottery and other industries. Stephen Easton was listed in census data at times as a broom maker, and it is under Easton's 1842–1845 tenure as first elder that references to broom making first become common in diaries kept by North Family Lot members.

Stephen Easton stepped down as first elder to become a trustee, perhaps because he had more drive and talent in the area of marketing and interacting with the outside world, rather than as a spiritual leader. Aaron Babbit served as the male first elder at the North Family Lot from 1845 to 1852. A change in the female leadership occurred in 1845 as well, when Amy Slater was appointed female eldress, a position she would retain apparently to her death in 1890. Babbit's tenure as first elder represents a time when the broom and pottery industries were both in operation, but the end of Babbit's term in 1852 coincides with the liquidation of the pottery's assets and its conversion to a broom shop.

The shift in emphasis from pottery to brooms at the North Family Lot around 1850 does not appear to have been related to changes in the first elder's position at the lot; more likely, it was a combination of changes in the demographics of the family and outside market forces. By 1850, the twin problems of the aging population and the low retention rate of younger members meant that fewer able men were available to perform the labor-intensive tasks involved with commercial pottery production. In addition, the middle of the nineteenth century was the period when redware was largely replaced by more durable stoneware as the ceramic of choice for utilitarian wares, which meant the Shakers faced an increasingly shrinking market for their pottery wares.

The tenure of Amos Parkhurst as first elder from 1852 to 1868 coincided with a successful era in North Family Lot industry. Although the pottery was closed down then, brooms were made and sold, and the large three-story Sisters' Shop building was constructed in 1854, at least in part to accommodate carding and other wool and textile-related industries.

Elders did help shape industries in the larger community, as Elder Freegift Wells did with the advent of palm leaf bonnet manufacturing at Union Village in 1837 (Sharp 1805–1880:302). Manufacturing palm-leaf hats and bonnets was a major women's outwork industry in the east after the textile industry became mechanized in the 1830s, and home weaving became economically unfeasible (Dublin 1994:47). In a system similar to textiles, the raw material was distributed to home workers, and the finished product returned to the agent or store. The same demographic that performed outwork in the textile industry produced the palm bonnets: young, single urban women living at home, and rural farm families. The Shakers, however, once again gained a competitive advantage when they mechanized the process in 1838: the average outwork palm-hat weaver produced on average two hats a week (Dublin 1994:37), while at Union Village, one person using the mechanized system could produce 300 bonnets a week.

Changes in Trustees

Although the elders held the highest positions in terms of leadership, it was the individual Union Village trustees, in charge of temporal affairs, who held the most influence over the industries in each interest. Since trustees had the most exposure to the world at large, they were in a better position to analyze prevailing market conditions and opportunities, and to decide on the best course of action to exploit them. Some Union Village leaders also recognized their own business and sales abilities and requested reassignment as trustees. As mentioned previously, North Family Lot Elder Stephen Easton requested in the mid-1840s that he be replaced as first elder and be reinstated as a trustee (Union Village Diarist 1836–1857:400). The Union Village ministry elders agreed and instituted the change. Stephen Easton was quite active as a trustee, making numerous trips to Cincinnati and Lebanon to sell and market Shaker goods. We know from a set of stencils recovered from the 2005 excavations that he put his name on shipping containers; shown in Figure 8 and Figure 9, these stencils bear his name and the initials of the North Family. Also recovered was a personalized metal stamp that he may have used on bills, receipts, and other business correspondence (Figure 10).

Figure 8. One of two brass stencils used on containers of Shaker market goods that were recovered at the North Family Lot

Figure 9. Second brass stencil from the North Family Lot, bearing Stephen Easton's name

Figure 10. Brass stamp reading "S. EASTON UNION VILLAGE OHIO"

Changes in Membership

In addition to the influence of trustees, changes in membership at the North Family Lot also led to changes in the craft industries at the lot, and sometimes spurred construction and rehabilitation of buildings. This is especially true with the 1836 transition from the Gathering Order to the Second Family, which was followed by an episode of new construction and the remodeling of existing buildings to accommodate the new industries. Separate families or interests appear to have been free to request the transfer of a knowledgeable individual to their group in order to start up a craft industry. For example, the appearance of Richard Pelham and Peter Boyd in the early 1840s at the North Family Lot helped initiate the family's medicinal herb interest, which was one of Union Village's most successful craft industries.

The Decline of the North Family Lot Industries

It is difficult to track the decline of the North Family Lot industries. Broom production and fiber-based crafts were healthy in the early 1850s, and additional physical facilities were allocated for them, including the conversion of the Pottery Shop to a broom shop in 1852, and the completion of the large Sisters' Shop in 1854. However, Union Village had a history of building new facilities in anticipation of future population increases or prosperity, only to find these hopes disappointed. The anticipated population increase that inspired Freegift Wells in 1843 to begin construction of a large brick communal house at the Center Family never materialized. Similarly, the construction of the mill-like Sisters' Shop at Union Village in 1854 came shortly before the industries at the lot began to slip into decline. The ca. 1900 Union Village history does indicate that the Young Believers introduced the first knitting machine to the village in 1861, so there was some attempt during the Civil War era to keep up with industrial mechanization (Hampton 1900:438).

By the 1860s, diary references to North Family Lot industries were increasingly scarce, and there are some statements about competition and industrial decline. An unknown Shaker reported on the Union Village North Family Lot silk making operation, observing that: "[t]he society manufactured all of the silk thread until sewing machines came around it was condemned as not running smoothly on the machines, this was the first veto on our homemade silk industry . . . it began to dwindle in the fifties and is now entirely gone" (Union Village Compiler 1859–1900:468). After the 1860s, we found few diaries or other documents that refer to industries at the North Family Lot. The 1860 federal industrial census lists several areas of industrial production under the name of North Family Lot trustee Stephen Easton. The most common male professions listed on the census were farmer and stock grower. The census data also listed two men as "farmer and carpenter," and two men as "farmer and mechanic." In terms of cottage industries, only one or two men were listed for each specific skill. Production included 1,200 dozen brooms valued at $3,600; 40 pounds of essential oils valued at $120; 100 pounds of extracts valued at $150; and 2,000 pounds of prepared herbs valued at $500 (United States Census Bureau 1860a).

The 1870s sources have several references to overall industrial decline at Union Village, but few refer specifically to the North Family Lot. Shaker William Redmon expressed concern in an 1873 diary entry about the overall decline of industry at Union Village, specifically mentioning general dilapidation of facilities, failure of the sawmill and woolen factory, sale of machinery at discounted prices, and operation of the flour mill operating only at flood tide (Redmon 1863–1879:658). Industrial census data from 1870 was not located for the North Family Lot. The decline of industries such as textiles and heavy agriculture was endemic to all Shaker communities due to declining populations. (Stein 1992:269), and the aging population of the Shaker communities forced them to rely increasingly on craft industries and market gardening, which is the production of vegetables and herbs for sale in local markets (Stein 1992:269)

Charles Nordhoff's 1875 survey of American communes, *The Communistic Societies of the United States*, indicates that Union Village at the time of the survey still had active industries for brooms, garden seed, and medicinal extracts, while the steel, leather, hollow-ware, pipe, and wool industries were listed as ones that were no longer practiced (Nordhoff 1875:201). Nordhoff's record of Union Village suggests that by 1875, diversity in craft production at the North Family Lot was very low. The financial records from the Mill Family in North Union, Ohio, show that in 1880, a Charles Clapp from Union Village purchased $70 worth of broom handles (North Union Mill Family 1879–1894:403). While Clapp or other Union Village residents are not mentioned by name after 1880, there are large purchases of broom handles each year in the logbook from North Union until 1884, when the North Union Mill and its equipment were destroyed by fire (Prescott 1886:278).

The 1880 federal industrial census recorded that the North Family Lot produced $600 worth of brooms and $550 worth of patent medicines. The 1880 census also documented that the Center Family produced $2,000 worth of brooms and was involved in grist milling and preparing sweet corn for food, and articles in the *Lebanon Gazette* on Union Village written by Oliver Hampton in the 1880s refer to the Center Family's broom factory. Production of herbal remedies and extracts were not recorded in the census in connection with the Center Family, confirming earlier indications that the Center Family sold its herbal medicine

equipment to the North Family Lot in 1873 (United States Census Bureau 1880a; Redmon 1863–1879:658). The South Family continued their seed house business until at least 1875 and may have been part of the competition that forced Shaker seed houses in Whitewater and Pleasant Hill out of business by 1873.

In 1890, Amy Slater resumed her diary after a decades-long silence. She noted only nine members were able to be present at a North Family Lot meeting. It is likely that with this few members, most of whom were probably quite elderly, there was not enough labor to support craft industry of any significant size at the North Family Lot (Slater 1845–1890:629–631).

Specific Industries at the North Family Lot

The following section discusses several of the individual industries that were active at some time at the North Family Lot and gives additional detail on the more prominent ones. The dominant industries at the lot produced herbal medicine, brooms, and fiber/textiles, and Union Village diaries and other sources provide ample information on these industries. The pottery is covered volume 4 of this monograph series, *Simplicity Comes in All Forms—The Shaker Ceramic Industries of Union Village, Ohio*, which is dedicated to that Second Family industry.

Herbal Medicines and Plant Extracts at the North Family Lot

Diaries that chronicle the activities in the family include references to drying fruit and processing herbs (Union Village Diarist 1836–1857:375). The Second Family requested that Richard Pelham be assigned to them to start a medicinal garden and attend to their kitchen. Pelham reported that "the close of it finds me living at the Second Family, quietly seated in an outhouse, disposing, packing, and arranging diverse medical extracts, oils herbs, and botanical specimens" (Pelham 1862:568).

Pelham reports in his 1842 journal entry that his kitchen department gathered, dried, and packaged 1,952 pounds of dried herbs and roots. In addition, 75 pounds of vegetable oils were distilled. In May of 1845, Pelham hired a hand to dig medicinal roots for producing patent medicines, and the production of medicines appears to have quickly gathered pace during and after 1845. Buildings at the North Family Lot that were used in herbal medicine and extract production include a herb/garden house, a still house, and the various dry houses that existed at the lot. In addition, the machinery at the Grain Barn used in threshing was sometimes used to grind herbs. The sawmill building was also used for grinding herbs, likely through attaching a belt-driven machine to the gearing array of the waterwheel.

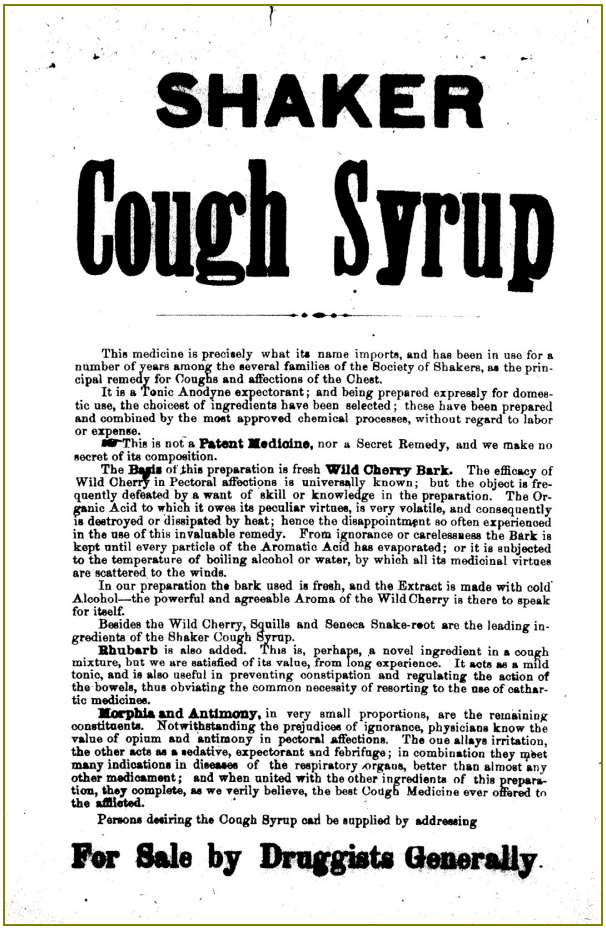
Table 21 is a list of all known and possible plants and herbs that were used at the North Family Lot as part of the herbal medicine and plant extract industry. We compiled the list from both archival sources and archaeological data. Some evidence for the herbal industries at the North Family Lot was also found in the pollen samples collected during the 2005 excavations. Pollen was identified for the following plants that could have been grown or processed into medicines and extracts at the North Family Lot: willow, cicuta, peppermint, astragalus, and evening primrose.

Table 21. Plants and herbs used in the North Family Lot herbal extract industry

Plant Name	Use
Astragalus	Immune system stimulant / digestive aid
Bloodroot	Mole / wart removal
Boneset	Colds and flu / anti-inflammatory
Black Cohosh	Rheumatism
Black Locust	Purgative / laxative
Blue Flag	Diuretic / detoxification
Cicuta	Poison
Dandelion	Diuretic / appetite stimulant
Elder	Rheumatism / diuretic
Evening Primrose	Astringent / sedative
Fleabane	Astringent
Henbane	Sedative / pain killer / narcotic
Motherwort	Antibacterial
Pennyroyal	Abortifacient / digestive aid
Peppermint	Anti-spasmodic / antibiotic
Poplar Bark	Expectorant / antiseptic
Prickly Ash	Rheumatism / arthritis / digestive aid
Rhubarb	Laxative
Sarsaparilla	Blood purifier / anti-inflammatory
Spearmint	Digestive aid
Seneca Snake-root	Decongestant
Squills	Expectorant
Wild Cherry Bark	Expectorant
Willow Bark	Pain relief

The Center and North Lot families both produced peppermint oil, but sarsaparilla was a product of the Center Family. In 1850, the federal industrial census recorded production of 125 gallons of sarsaparilla under the name of trustee Peter Boyd, who was by this time representing the Center Family. To generate this quantity of the product, $500 worth of sarsaparilla was used, along with $100 worth of whiskey. Capital investment in sarsaparilla production under Boyd's name was recorded as $200 (United States Census Bureau 1850a). The North Family Lot continued to produce distilled oils for sale, specifically peppermint oil. However, in the 1850 industrial census, we found no record of North Family Lot oil production under the names of trustees Aaron Babbit and Stephen Easton.

Another product produced at Union Village was "Shaker Cough Syrup." Our archival research yielded an undated advertisement for this product (Figure 11), and by a fortunate turn of events, we recovered an intact (but empty) medicine bottle of this product during excavations (Figure 12). The advertisement lists the ingredients of the product, which was mainly Wild Cherry Bark extract, supplemented by squills, Seneca snake-root, rhubarb, and small amounts of morphine and antimony, all mixed in an alcohol solution. From the list in Table 21, it appears that other possible medicines produced at the North Family Lot included those intended to treat rheumatism and arthritis, digestive aids, pain killers, and diuretics. Of obvious note is the presence of pennyroyal, famously used to induce abortions. However, there is no evidence that pennyroyal was used for such purposes at the North Family Lot, and the plant is known for having other medicinal properties, such as aiding digestion.



SHAKER

Cough Syrup

This medicine is precisely what its name imports, and has been in use for a number of years among the several families of the Society of Shakers, as the principal remedy for Coughs and affections of the Chest.

It is a Tonic Anodyne expectorant; and being prepared expressly for domestic use, the choicest of ingredients have been selected; these have been prepared and combined by the most approved chemical processes, without regard to labor or expense.

☞This is not a **Patent Medicine**, nor a Secret Remedy, and we make no secret of its composition.

The **Basis** of this preparation is fresh **Wild Cherry Bark.** The efficacy of Wild Cherry in Pectoral affections is universally known; but the object is frequently defeated by a want of skill or knowledge in the preparation. The Organic Acid to which it owes its peculiar virtues, is very volatile, and consequently is destroyed or dissipated by heat; hence the disappointment so often experienced in the use of this invaluable remedy. From ignorance or carelessness the Bark is kept until every particle of the Aromatic Acid has evaporated; or it is subjected to the temperature of boiling alcohol or water, by which all its medicinal virtues are scattered to the winds.

In our preparation the bark used is fresh, and the Extract is made with cold Alcohol—the powerful and agreeable Aroma of the Wild Cherry is there to speak for itself.

Besides the Wild Cherry, Squills and Seneca Snake-root are the leading ingredients of the Shaker Cough Syrup.

Rhubarb is also added. This is, perhaps, a novel ingredient in a cough mixture, but we are satisfied of its value, from long experience. It acts as a mild tonic, and is also useful in preventing constipation and regulating the action of the bowels, thus obviating the common necessity of resorting to the use of cathartic medicines.

Morphia and Antimony, in very small proportions, are the remaining constituents. Notwithstanding the prejudices of ignorance, physicians know the value of opium and antimony in pectoral affections. The one allays irritation, the other acts as a sedative, expectorant and febrifuge; in combination they meet many indications in diseases of the respiratory organs, better than almost any other medicament; and when united with the other ingredients of this preparation, they complete, as we verily believe, the best Cough Medicine ever offered to the afflicted.

Persons desiring the Cough Syrup can be supplied by addressing

For Sale by Druggists Generally.

Figure 11. Ca. 1850s advertisement for Shaker Cough Syrup

Figure 12. Bottle of "Shaker's Cough Syrup" recovered from the cellar of the Brothers' Shop

Medicine may not have been the only purpose the North Family Lot herbalists had for plants. A record of cicuta grinding in 1848 may indicate that the family also produced pesticides (Union Village Diarist 1836–1857: 442). Cicuta is also known as water hemlock and is a member of the Apiaceae family. It is highly toxic and is regarded as one of the most poisonous plants in North America. Other herbs that could also have been used as poisons include bloodroot and henbane.

Broom Making at the North Family Lot

There are numerous references in North Family diaries to the production and sale of brooms by the North Family Lot from the 1840s through the 1860s. The broom industry at the North Family Lot did not seem to become a focus of male craft production until after the pottery was shut down in 1850. Broom production became prominent as a Second Family craft industry with the conversion of the old pottery shop into a broom shop in 1852 (Figure 13). The Center Family operated a large and successful broom factory in the 1850s and 1860s at the same time that broom production became a more important aspect of North Family Lot life. The South family also produced brooms, but according to Peter Boyd's business correspondence, it ceased production by December 1853 (Boyd 1805–1850).

Figure 13. North Family Lot Broom Shop in 1915

Brooms were an item that the Shakers made for much of their history. The Shakers at Watervliet, New York, are credited with manufacturing the first Shaker brooms in 1798 (Andrews 1963:130), and in the mid-1820s, the Shakers introduced several design innovations to broom making. Theodore Bates of the Watervliet Shaker community is credited with inventing the flat broom. Most early brooms had woven stems, but Bates's design eliminated the labor-intensive woven handles, as well as the holes and wooden pegs, and instead attached the bristles to the broom with wire. The broom was placed in a vise,

giving it the flat shape of modern brooms (Onley 2004). Large quantities of brooms and broom handles were in production at New Lebanon by 1805, with the brooms delivered to market in Albany (New York, Boston, and other smaller communities (Andrews 1963:130–131). Broom production continued on a large scale at New Lebanon at least through the early 1860s (Andrews 1960:136).

Shaker-type flat brooms were made from broomcorn bristles, iron wire, and a wooden handle. The broomcorn was actually a type of sorghum whose stems made particularly good broom bristles, and which grew especially well in the Midwest. Small and large broom factories were common in the Midwest during the nineteenth century (Onley 2004), and broom production was one of the most widespread Shaker crafts. Many of the families at New Lebanon made brooms, and each family had its own markets and maintained business relationships with its own group of clients (Andrews 1963:139).

The tools for making brooms in the mid-nineteenth century were fairly simple. A wheel and shaft device was used to tie the broomcorn bristles onto the handle, and then a vise held the broom while it was sewn and bound. In many cases, a foot-powered lathe was used to make the handles, which were usually made from maple (Andrews 1963:137–138). A working broom shop is currently maintained at the Pleasant Hill historic site near Harrodsburg, Kentucky. The Pleasant Hill operation uses several pieces of Shaker equipment and several other broom-making machines from the last half of the nineteenth century. A small broom-making operation could be set up with a few machines in a fairly small space. The main work involved was removing the seed and otherwise preparing the broomcorn, making the wooden broom handles on a lathe, tying the broomcorn to the handle with wire, placing the broom in a vise, and then sewing it into the flat shape.

Brooms at the North Family Lot appear to be primarily a Second Family product. One reference to broomcorn is made in the 1829 letter written to Matthew Houston, but otherwise we found no evidence that the two Gathering Order families who lived at the North Family Lot from 1815 to 1835 produced brooms on any scale. The first reference to broom production at the North Family Lot is a reference in the anonymous North Family Lot journal to North Family trustee Peter Boyd, when he traveled to Cincinnati with brooms on March 3, 1844 (Union Village Diarist 1836–1857:392). In his own journal, Boyd mentions delivering brooms, along with herbs and medicines, to Cincinnati on that same date (Boyd 1805–1850). In 1844, Boyd noted that a Shaker brother named Nathaniel (possibly Nathaniel Massie) finished making a broom machine, and by January 6, 1845, Timothy Bonnel began turning broom handles (Boyd 1805–1850). The broom machine was likely a powered lathe that could quickly turn out the wooden broom handles.

In January of 1845, R. W. Pelham, the new First Trustee of the North Family Lot, went to Cincinnati with 16 dozen brooms, along with carpeting and medicine to sell (Union Village Diarist 1836–1857:396). On January 7, 1846, Stephen Easton headed to Cincinnati with the first brooms of the season (Union Village Diarist 1836–1857:400–404). These two entries suggest that broom manufacture could be a year-round activity.

Several references to broomcorn, broom handles, and broom production are recorded for the period 1849–1852 in the anonymous North Family Lot journal (Union Village Diarist 1836–

1857:469–485). In March 1852, just before the pottery shop was converted to broom making, the diarist recorded that Brother Stephen (Easton) sold 600 dozen brooms to A. J. Tyler (Union Village Diarist 1836–1857:485). Population census data suggests a small amount of people were assigned to making brooms at the North Family Lot from 1850–1860, but industrial census data suggests that a large number of brooms were made there at that time. Trustee Stephen Easton was recorded with an annual production of 1,100 dozen brooms under his name, along with consumption of 13 tons of broomcorn.

The First Family's broom production was much larger, since it included the goods from both the Center Family and the North House Family. The 1850 industrial census entry for Peter Boyd, trustee of the Center Family, listed annual production of 800 dozen brooms using 10 tons of broomcorn. The 1850 industrial census data also records production of 2,000 dozen brooms and use of 21 tons of broomcorn for the year, along with a capital investment of $1,400, under the name of Cephas Hollaway, trustee of the North House Family (United States Census Bureau 1850a). There were at least three other entries for broom makers in the 1850 industrial census in this district, although the names did not match any known Union Village trustees in the 1850 population census, and we assume they represent local, non-Shaker production.

We did not find any 1860s-era diary references to broom making at the North Family Lot. However, industrial census data indicates that brooms were still being made at the North Family Lot at that time. Under the name of Stephen Easton, the 1860 industrial census lists production of 1,200 dozen brooms for the year, valued at $3,600 and using 13 tons of broomcorn. A broom factory shows up at the Center Family Lot on an 1867 plat of Warren County (Figure 14). We could not locate any industrial census data for Union Village for 1870. However, Nordhoff reported that brooms were still being made at Union Village in 1875 (Nordhoff 1875) .The 1880 federal industrial census indicated that the North Family Lot broom factory operated for four months out of the year, and produced $600 worth of brooms. It also stated that the maximum number of adults working at the broom factory was five, and that on average, two males over the age of 16 were employed at broom making at any given time. Data on the quantity of brooms produced is not given. The Center Family produced $2,000 worth of brooms in 1880, with an average of four people working at the task at a time. The data indicated that the Center Family broom factory also operated for four months out of the year (United States Census Bureau 1880a).

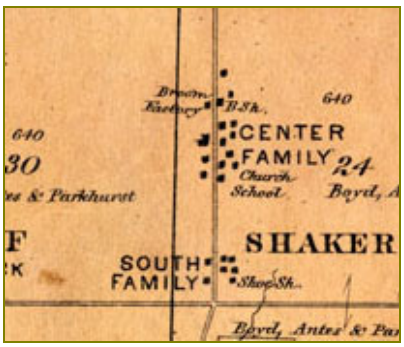


Figure 14. Detail of 1867 Warren County Plat map
The broom factory is located at the northern end of the Center Family

Although it is tempting to extrapolate the average number of workers in broom production from the 1880 census data, it is likely that earlier production employed more male Shakers than in later years. Very few male Shakers of working age were left at Union Village at the time of the 1880 census compared to the 1840s, so the pool of possible broom makers would have been much smaller. The fact that the North Family Lot needed to add a second story to the pottery as part of conversion to a broom shop suggests that the workforce for broom production in 1852 was larger than half a dozen brothers.

We cannot pinpoint when broom production ceased at the North Family Lot. Oliver Hampton referred to Center Family broom production at Union Village in several pieces he wrote for the *Lebanon Gazette* newspaper in 1886 (Hampton 1886), and Amy Slater refers to the harvesting of broomcorn in her diary in September 1890 (Slater 1845–1890:629–631), but with a rapidly declining population of male Shakers, all broom production likely ceased in the early 1890s at the latest.

Fiber Crafts and Clothing Production at the North Family Lot

Fiber Crafts

Weaving, spinning, and other fiber-related crafts were practiced from the initial days of the New Lebanon Shaker settlement. In general, the spinning and weaving industries were operated by Shaker women (Andrews 1963:182), many of whom had learned weaving and spinning skills at home. These activities were at first used to provide products for internal use and then expanded into a profit-generating industry. The overall Shaker fiber craft industry remained strong through the 1850s, when mass-produced goods started to make the hand-made Shaker products uncompetitive. However, at New Lebanon, the Shaker looms continued to be used into the 1850s and 1860s to make carpeting, seat mats for Shaker chairs, and some linen and flannel for clothing (Andrews 1963:185–191).

Cloth, yarn, and weaving were established early on as craft industries at Union Village. In 1812, the village purchased Merino sheep, a Spanish variety known for producing fine wool. Several years later in 1821, Union Village was producing wool hats, blankets, and garments, and Union Village carded 3,000 pounds of wool (Bauer and Portman 2004:119). In addition to wool, Union Village also produced flax, which was used to make linen.

The 1829 letter to Matthew Houston indicates that rug weaving was established at the North Family Lot by 1828 (Union Village Correspondent 1829:406–407). Little additional information was found about fiber-based craft production at the North Family Lot before the Second Family's occupation in January 1836.

Fiber-based industries were an important part of life at the North Family Lot during the Second Family's occupation; however, one of the best sources of information on craft industry at the North Family Lot, the anonymous North Family Lot diary of 1836–1857, contains only a few references to wool, yarn, and textiles. Considering the choice of topics in the diary (building construction, livestock butchery, commerce, and planting and harvesting of row crops, but no mention of turns in the kitchen, producing fabric, or gathering herbs), the writer was clearly male, which might explain the fairly sparse attention given to textiles and wool. In comparison, the diary of North Family Lot Eldress Amy Slater, which contains

mainly entries dating to 1845–1850, is full of references to processing wool and flax processing, weaving rugs, and making and dyeing cloth.

The earliest Second Family–era reference found to wool production at North Family Lot is an 1842 comment by the anonymous North Family Lot diarist stating that North Family trustee Peter Boyd delivered 300 pounds of wool to Cincinnati (Union Village Diarist 1836–1857:377). The diarist also mentions that trustee Richard W. Pelham took two pieces of carpet, along with other items, to Cincinnati in 1845 (Union Village Diarist 1836–1857:396). The 1850 Federal Industrial Census records only cloth production at the Center Family, with an annual production of 1,000 yards of cloth under trustee Peter Boyd, who was now at the Center Family. The cloth was made using an unrecorded quantity of wool worth $400 (United States Census Bureau 1850a).

The 1845–1850 work record and diary of Amy Slater frequently refers to textile production at the North Family Lot, describing work done by Slater and the other women there. Most passages in Slater's record do not make it clear if the textiles were specifically intended for use by the Second Family or for sale or barter to the outside world, although she did at times record the intended consumers, both those within Union Village and those who were not Shakers. In 1845, Slater and the other Second Family sisters spun and hackled flax, wove carpets, cut carpet rags, and tended to the silkworms hatch. The 1850 agricultural census reports silk-worm production at all three families at Union Village. Isaac Youngs had observed silkworms at the West Brick House in 1834; apparently this was another craft that the Second Family transplanted from the West Brick House to the North Family Lot in 1836 when the community was reorganized.

Spinning and hackling flax were aspects of making cloth. Flax was produced from fibers of the plant *Linium usitatissimum*, and was used to make linen; hackling flax is a carding technique in which flax fibers are combed from end to end to remove short fibers and non-fibrous material and divide the fiber strands to make them parallel (Sanblue Enterprises 2005). In January 1845, Slater and the other sisters worked for three days hackling flax, and produced 59 pounds of it, with "20 pounds done roughly for bags" (Slater 1845–1890:591).

Fiber-related crafts were often seasonal at Shaker communities. Records from the 1830s through the 1850s kept by New Lebanon sisters indicate that production began in April with the boiling and coloring of flax and yarn, and sorting and washing the winter's supply of wool. Summers were occupied dyeing the cloth and carding and spinning (Andrews 1963:213–214).

Some fiber crafts were made year-round at the North Family Lot in the 1840s, but as at New Lebanon, certain activities tended to be commonly performed at different times during the year. Amy Slater's diary entries regarding fiber crafts for the year 1846 give us an example of the different fiber craft activities that occurred over the course of a year (Slater 1845–1890:594–599). Fiber craft production began in April of that year with shearing sheep and washing wool. By June, the Second Family sisters were spinning worsted and wool, combing worsted, and dyeing the cloth blue. In August, they scoured yarn for blankets and finished warp for gowns, and by September, the sisters were weaving a carpet and reeling yarn for frocks. In October, dyeing was the primary activity; the herb madder was used to produce red-colored cloth, and white flannel was smoked with brimstone to prepare it for sale. Work

on dyeing continued into December 1846. At times, Slater's report on the textile work is interrupted because she is taking a "tour" or "turn" for a month doing interior painting or kitchen work (Slater 1845–1890:592). This practice of taking turns was how Shaker sisters divided up the household chores among themselves, ensuring that every sister participated equally in the tasks considered to be the most tedious (Andrews 1963:214).

In April 1845, Slater noted that information about spinning machines had been brought back from the Shaker community in Canterbury, New Hampshire (Slater 1845–1890:592). By August 1845, a spinning machine was in operation at the North Family Lot, and the machine's first batch of yarn was available on August 21, 1845. Wool spinning continued into 1846, and Slater referred to weaving a carpet for the elder sisters' room, and to spinning and reeling yarn (Slater 1845–1890:591–597). By November 1846, Slater was using rose madder to color a material she referred to as "lincy" (Slater 1845–1890:594–599). Linsey or linsey-woolsey is a fabric with a linen warp and wool weft known for its durability.

Clothing Production

Clothing was manufactured at Shaker communities primarily to meet the needs of the members. Tailors and seamstresses were intended to be part of every family lot in order to provide for their clothing requirements, but in practice, a Shaker tailor or seamstress was often called upon to provide clothing for more than one family group. According to Shaker rules, only a man could make clothing for men, and only a woman could make clothing for women; this rule was part of the prohibition of unnecessary interaction between the sexes. However, the rule was bent a little at Union Village to allow women to complete certain items of clothing intended for men. At the Center Family, women finished the sewing on men's jackets in the 1850s (Bauer and Portman 2004:180); apparently, women could work on the end stages of preparing men's jackets because it did not involve the more intimate steps of measuring and cutting, which the men performed. In that way, the minimal physical contact between the sexes was upheld. The trend of a single tailor who serviced multiple families increased over time, as the number of Shakers with the necessary skills and inclinations declined. In the later years of the nineteenth century, Shakers often had to supplement their clothing needs with mass-produced items bought from the outside world (Stein 1992:160).

Shakers usually possessed several sets of clothes. The typical Shaker outfit for a man included a hat, jacket, vest, trousers, and a white coat. Working clothes could also include an apron and a frock coat. Sisters wore bonnets and caps and aprons, along with one-piece dresses, and a kerchief was often worn over the front of the dress. By the end of the nineteenth century, dress standards were among the behavioral rules that had relaxed as part of the Shaker decline, and a variety of outfits could be seen at Shaker communities, although all were still conservative in appearance. The relaxed dress standards may also have been a result of a lack of Shakers who could still produce clothes for the entire community, so members would have worn clothing from outside sources.

During the first half of the nineteenth century, Shakers produced their own raw material for clothing manufacture. Tannery operations provided leather for shoes, belts, and aprons; flax was grown to produce linen; and Merino sheep yielded wool. Also, it is possible that Shakers made their own buttons from the bones of slaughtered domestic animals, although we found

no archaeological evidence for button production during the 2005 excavations at the North Family Lot. We did recover bone artifacts that represented unfinished bone items, such as scales for utensil or tool handles and possible pottery tools. Evidence for possible hat production was uncovered in the Brothers' Shop cellar, in the form of a copper artifact that resembles a hat form (Figure 15).

Figure 15. Possible hat form recovered from the Brothers' Shop

Palm leaf bonnets were another product produced as part of the clothing production industries at Union Village in the 1840s (Slater 1845–1890:598–608). These bonnets were first made from imported Cuban palm leaves at New Lebanon and other Eastern Shaker communities starting in the late 1820s (Andrews 1963:202). The practice was introduced to Union Village by First Elder Freegift Wells shortly after he took the top leadership position in spring of 1836 (Sharp 1805–1880:201). Abner Bedle, a Union Village mechanic, invented a loom for weaving the bonnets in February 1837, speeding up the formerly laborious process for making these items by hand (Bauer and Portman 2004:171).

In addition to the 1846 activities in Slater's diary, the Shakers at the North Family Lot practiced other activities as part of making clothing, including reeling silk and dyeing the cloth blue, as noted in 1847 (Slater 184–1890:598–608). Mechanization of the fiber product and clothing industries continued to be developed. Timothy Bonnel made the sisters a new loom with a "double box for making check" (probably checkered cloth) in October 1848 (Slater 1845–1890:598–608). Although women supervised and provided the labor to manufacture all of the fiber craft items at Union Village, the marketing and sale of these items was left to North Family Lot trustees, who were men. Slater reported that Stephen Easton took 42 yards of carpet for sale to Lebanon in 1849. Slater and the other Second Family sisters continued to spend a significant amount of time spinning wool up through 1850 (Slater 1845–1890:618–621). Slater's diary stops in May 1850, and she does not take it up again until June 1890, by which time the Union Village textile industry had been idled for over 17 years

The Sisters' Shop (Figure 16) was a large, gabled, three-story building that was sometimes referred to as the Carding Shop. It appears to have been intended primarily for use in textile work, and several diary entries refer to its construction from July to September 1854 (Union Village Diarist 1836–1857:508–509). Archival evidence indicates that the woolen business was still thriving into the early 1860s (Sharp 1805–1880:284–285). The introduction of the first knitting machine to Union Village occurred in 1861 (Hampton 1900:438). MacLean states that the knitting machine was procured to make gloves and mittens for sale, noting that these items were made by hand before (MacLean 1907:101). However, in December of 1863, the South Family purchased 21 yards of carpeting rather than making it themselves, which may mark the beginnings of Shaker cost-benefit analysis for their textile industry, as competition from eastern industrial centers drove down the price of textiles. The South Family may also have lacked the labor required to produce their own carpets.

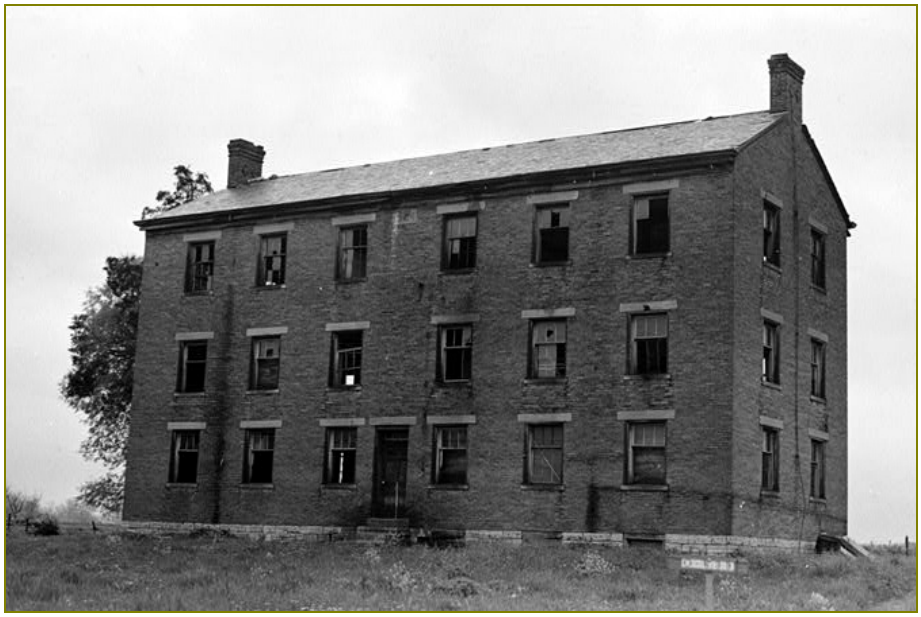


Figure 16. Sisters' Shop in 1937

Despite the attempt to mechanize the Shaker textile industries, the end of the 1860s marks the era of their rapid decline at the North Family Lot and across Union Village as a whole. In 1866, Charles Clapp was supervising hired hands at the woolen mill, indicating a lack of Shaker labor that could operate the mill. In 1868, the Union Village Council decided that the First Family would purchase their cloth and sell their wool (Sharp 1805–1880:302). Sally Sharp mentioned in her diary that the woolen factory at the Center family was sold on May 18, 1869 (Sharp 1805–1880:303), and Nordhoff noted that by 1875, the Union Village Shakers were no longer involved in the wool industry (Nordhoff 1875:201). The most likely factors in the decline of textile manufacture at Union Village were competition with industrial mechanized mills, the disruption of markets by the Civil War, mismanagement by Union Village and North Family Lot leaders, and the aging of the North Family Lot's population, all of which made it impractical to continue production within the Shaker community.

Agriculture and Agricultural Products

Agricultural products were produced at Union Village for both internal use and sale to the outside world. There were four main agricultural products: food, stock (raising), raw materials for craft industries, and animal feed. Gardens, fields, and orchards provided garden seed and food for the community, as well as for sale at local markets. Animal husbandry and stock production included raising cattle, hogs, and horses, for internal use and as a source of income through sales to local markets. Raw materials that were produced agriculturally for craft industries include wool, herbs, flax, and broomcorn, and animal feed such as hay and grains were needed to operate the farms. During the 1800s, the emphasis that Union Village placed on each area of farm production changed based on market conditions, cost-benefit analysis, community population demographics, and changes in the Millennial Laws. This section focuses on Shaker agriculture as it specifically relates to food products, and does not discuss the herbal industry.

Agricultural Products for Subsistence and Profit

Each individual family lot was responsible for providing sustenance for its members. The food for the family members came from a series of tilled fields, gardens, and orchards that provided fruits, vegetables, and grains. The 1829 Union Village map shows that almost every lot had its own garden, orchards, and tilling grounds, although some lots did not possess all three types of land.

The Second Family cultivated hay, wheat, and Indian corn for animal feed. Hops are also included in the 1850 Agricultural Census and may have been used to produce malt beer. The North Family Lot was the only interest in Union Village to grow hops.

Animal Husbandry and Stock Production

Numerous journal entries record stock production as a way to generate profit. Richard McNemar recorded on December 8, 1829, that

> A council met at the office & agreed to hire a miller, revive the potter work & to buy & to butcher hogs sufficient to purchase the next year sugar without making any bad union meeting. Not last year this society butchered about 4000 hogs on which they cleared $4000 (McNemar 1835).

The anonymous North Family Lot diary has many references between 1839 and 1855 to stock production (Union Village Diarist 1836–1856). The trustees made frequent trips to Cincinnati with pork, beef, wool, chicken, and eggs, and the North Family Lot also sold geese and turkey in outside markets. Peter Boyd, during his tenure as Center Family Trustee, reported that the South Family was in the garden seed industry (Boyd 1851–1862:239, 262). Prepared food and market goods were also sold at a Cincinnati farmer's market during this period. Stephen Easton is reported as going to an unnamed Cincinnati market with chickens, geese, turkeys, and sauces during the marketing season, which seems to run from roughly the beginning of December to the middle of March (Union Village Diarist 1836–1856).

In 1850, the Second Family still maintained 220 sheep, and at the time of the census, had 800 pounds of wool on hand (United States Census Bureau 1850a). The total number of sheep in

Union Village in 1850 was 1,020, but by the time of the 1870 Agricultural Census, the number of sheep in Union Village had dropped to 272. Cheese and butter production was high in 1850 and 1870 with approximately 13,000 pounds of butter produced in the latter (United States Census Bureau 1870a). The 1870 census also records the reintroduction of swine to Union Village. The 384 hogs noted in 1870 far outweigh the annual allowance of pork per person in the past and therefore must have been sold on the open market. It is unknown whether the North Lot and Center Families sold their butter.

Pork production and hog breeding had an important role in the early history of Union Village. The stock farmers of the village are credited, for example, with developing the popular Poland-China breed of swine. In 1816, Union Village trustee John Wallace, secured a boar and three sows of the Big China hog breed in Philadelphia, and Union Village stock farmers bred these animals with Union Village Russia and Byfield hogs to produce what was later known as the Poland-China breed, also sometimes called the Warren County breed. This breed was identified quickly as highly superior, with some animals reaching a weight of 1,200 pounds (Duncan and Davis 1921:1–2).

Pork production at the North Family Lot and Union Village fluctuated from the period of 1836 to 1848. Murray and Cosgel state that pork production was scaled back in Union Village after the financial panic of 1837, a major economic downturn that lasted for five years and involved numerous bank failures (Murray and Cosgel 1998:503). In November of 1841, the elders in New Lebanon forbade the consumption and keeping of pork, a proscription that was widely ignored in Western communities. In December of 1841, the Second Family butchered 72 hogs and sent 40 to the Center Family to be packed (Union Village Diarist 1836–1857:380). The restriction was still being ignored in 1843 when the Second Family allocated 50 pounds of pork per adult and 16 pounds per child (Union Village Diarist 1836–1857:389), and as late as 1845, the North Family Lot was still consuming pork.

Hogs continued to be raised in all the families until 1847. During the Christmas Church meeting of 1847, the inhabitants of Union Village received “spiritual gifts” as a consequence of not having hogs there anymore (Union Village Diarist 1845–1851:237). By the winter and spring of 1848, all the hogs in the village were sold. Almost every diary of that time period notes that hogs were removed from Union Village forever, and the 1850 Agricultural Census includes no swine in the village. However, Philippi notes that hogs were not banned for long (Philippi 1912:121). Murray and Cosgel also note that pork was popular among the hired hands at Shaker communities and would have been kept on hand to feed them (Murray and Cosgel 1998:495). The 1870 Agricultural Census recorded over 300 hogs in Union Village at the time of the census, and over $4,000 worth of animals were sold for slaughter or slaughtered at the village. While it is conceivable that some of these butchered animals were steers, it is unlikely that they all were.

A 1921 history of the Poland-China breed indicates that the prize-winning “Shaker Sow D,” bred by Union Village Shakers in 1870, was sold to L. D. Doty of Middletown, Ohio, in the fall of 1871 (Duncan and Davis 1921:17). The Shakers had clearly returned to the hog-breeding business by the late 1860s, if they were producing breed stock at that time. The name of the breed is interesting, as most prize-winning hogs of this area were given masculine or feminine names like Black Beauty or John III, rather than the more impersonal

Shaker Sow D. Possibly, this name reflects Shaker rules that forbade giving animals human-like names.

The Shakers also imported and raised registered Durham shorthorn cattle. The community at Pleasant Hill purchased Durham shorthorns from the initial importation in 1817 (Murray and Cosgel 1999:42). Durham shorthorn cattle are versatile and suitable for beef cattle, milking, and oxen. In fact, the Sanders Importation Durhams of 1817 were renowned for their versatile capabilities, a quality lost in later herds (Sanders 1936:486). Union Village Shakers also imported Scottish Shorthorn cattle during the 1850s, and by the late 1860s, the Shakers in Ohio and Kentucky had one of the premier shorthorn herds in the country (Murray and Cosgel 1999:43). The importation of cattle may be related to a bull stable and a calf stable constructed in the summer and fall of 1851 at the North Family Lot (Union Village Diarist 1836–1857:476, 481). So successful was the new cattle breed at Union Village that enough stock was sold in 1855 to cause concern in the central ministry about the scale of their enterprise (Stein 1992:139). The North Family Lot even commissioned a photographer to take a picture of their prized shorthorns around this time, although these photographs have since been lost.

Beef cattle and milk cows were an enduring element of the Second Family and Union Village. Each type of animal had a very specific function within the family. Milk cows provided cheese for sale, and butter and milk for community consumption. The importance of the milk cows increased after the hogs were eliminated in 1848. The absence of pork products meant that lard could no longer be used for cooking, and butter consumption rapidly increased as a substitute (Murray and Cosgel 1999:55). The Second Family reported 25 milk cows and 40 beef cattle in 1850, along with 3,000 pounds of butter and 500 pounds of cheese. In addition to being more valuable, the purebred Shaker shorthorn cattle out-produced their neighbors as well (Murray and Cosgel 1999:60).

In the 1870 census records, the North Family Lot and the Center Family were listed together, with 280 milk cows and 168 cattle designated as "other," which may refer to beef or breeding stock. Cheese production seems to have declined, with only 110 pounds manufactured, but 13,960 pounds of butter were produced in 1870. Durham shorthorns were replaced in popularity by other breeds, notably Herefords and polled (bred to have no horns) blacks after the Bates Shorthorn bubble in 1877 (Sanders 1936:38–40). The speculative cattle bubble destroyed the value of pedigreed shorthorns in the United States. Union Village and presumably the North Family Lot diversified their herds in the 1880s, including Herefords and polled Angus cattle. A photograph from ca. 1910 shows the Center Family's herd of polled Angus steers (Figure 17), and J. W. Philippi mentioned that Union Village sold 58 polled Angus steers for export in that year (Philippi 1912:80).

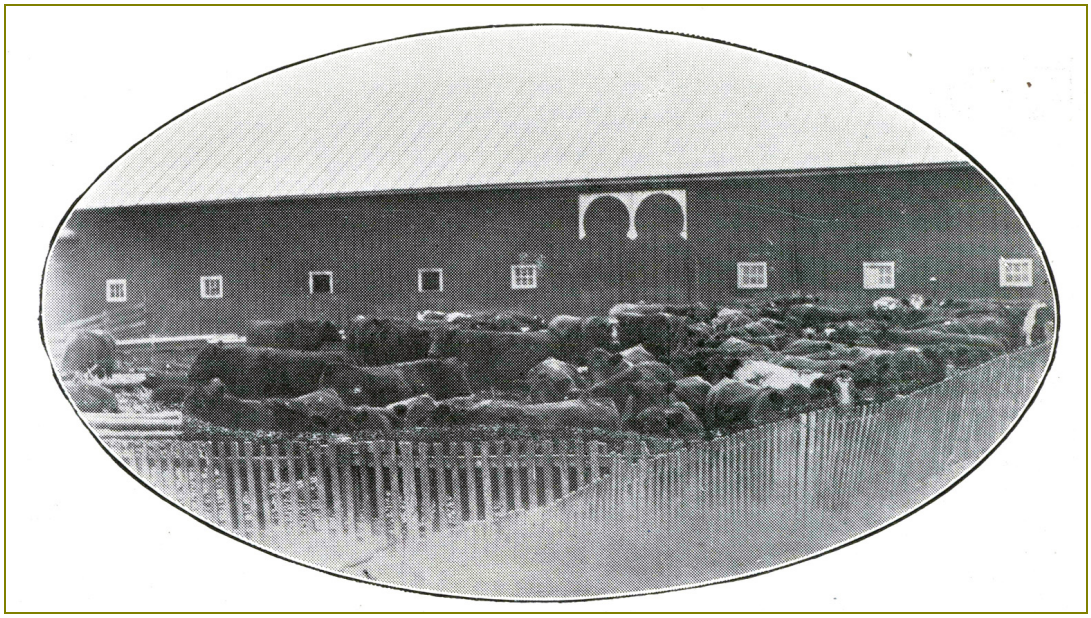


Figure 17. Center Family polled Angus cattle for export, ca. 1910
(Philippi 1912)

The Decline of Agricultural Activities

Tenant farming increased as the Union Village population aged. Tenants leased farms for spans of 10 to 20 years and split the proceeds with the Shakers on a 50-50 or "halves" basis (Philippi 1912:121). At this point, the Shakers' main concern seemed to be locating and maintaining suitable tenants. In 1876, a tenant lawsuit over a peach orchard was decided against the tenant, who promptly burned down a cow barn in retaliation (Philippi 1912:105). Great relief was proclaimed when a suitable tenant was located to supervise the Center Family's dairy operation in 1894, indicating a lack of qualified Shakers to fill the position (Boyd 1851–1862:331). By 1895, all the farmland at Union Village had been rented, and the Shakers worked only the gardens (Philippi 1912:109). After Union Village was sold to Otterbein Homes, tenant farming continued on much of the former Union Village property, and farming still continues today on old Shaker fields, albeit on a much more reduced scale than in the nineteenth century.

CHAPTER 5. CONCLUSIONS

The archaeological excavations and archival research for the North Family Lot of Union Village have revealed a wealth of data about the lives of Shakers in nineteenth-century Ohio. Our work at this important archaeological site has shown that Shakers in Union Village deviated in some ways from the traditional view of Shaker lives and beliefs. In terms of diet and refuse disposal, the Union Village Shakers did not always strictly adhere to the rules of the society. In other areas, however, there is much in common between the well-studied Eastern Shaker communities, such as New Lebanon and Canterbury, and the Western villages, such as Pleasant Hill and Union Village.

The Three Phases of the Social History of the North Family Lot

The social history of the North Family Lot has three broad phases associated with the Shaker occupation: the Young Believers era, the Gathering Order period, and the Second Family occupation of the site. In addition, there was a long occupation in the twentieth century by Otterbein Homes, who used the lot as a home for retirees and as an orphanage. The North Family Lot was originally founded in 1815 to house a satellite family of the Gathering Order at the location of a frame farmhouse formerly owned by Isaac Morris. The new family was made up of recent converts to the Shaker religion, referred to in Shaker documents as the "Young Believers." These new members were segregated from the more committed and established Shakers for two main reasons: so that they could learn about what the Shaker life would require of them, and to keep the new members separate from the dedicated members while the new members severed all former ties to the outside world. Because the Gathering Order was usually the first home for new converts, the families associated with the order grew quickly, and by the end of the Young Believers period in 1828, at least 150 people were living at the North Family Lot.

The first reorganization of family lots at Union Village took place in response to dissent among the Young Believers. Several of the new members became dissatisfied with Shaker life, and many began to adopt the beliefs of a Young Believer named Abijah Alley, who preached a more liberal version of Shaker beliefs; Alley eventually apostatized, taking many disaffected Young Believers with him. As part of a response to the insubordination and disarray among the Gathering Order's satellite families, the core Gathering Order group was moved to the North Family Lot in late 1828, joining the 28 remaining members of the Young Believers. Most of the other Young Believers had either left the society or were among those relocated from the North Family Lot to the West Family Lot, the most physically remote family lot at Union Village.

The core Gathering Order family held the same purpose as the Young Believers: to serve as a place where converts could sever ties to the outside world while learning the ways of Shaker life. However, the Gathering Order contained several long-term, experienced Shakers in the family, who served as teachers and role models to the new members while also steering the group's spiritual and physical upkeep. In reality, it appears that the main concern of the

Gathering Order at the North Family Lot was to try and clean up the financial mess left by the Young Believers. Due to peculiarities of Shaker laws, debt responsibility was attached to the physical location of a family; thus, when the Young Believers left the North Family Lot, the Gathering Order inherited the considerable debt the Young Believers had accrued through poor financial decisions and their spending on capital improvements. The task of paying off the Young Believers' debts is probably the main reason why few new buildings were built at the North Family Lot until near the end of the Gathering Order's tenure in 1835.

The main focus of both the Young Believers and Gathering Order at the North Family Lot appears to have been agriculture. Some for-profit crafts were present but not especially successful, such as window blind manufacture. Initially, the tanyard located at the Square House Lot may have originally been operated under the supervision of the North Family Lot and not the Square House family, who operated a sawmill and a clothiers' shop. At some point in the 1820s, the Young Believers' tannery was taken away from their control by the Union Village central ministry. The lack of established craft industries at the North Family Lot before 1836 is not surprising, as the majority of the members of the family would have been short-term occupants who may not have had the skills to apply to for-profit craft work. As the purpose of Gathering Order families was to train people in the ways of the Shakers, the intent was to move people to other lots, where they could join established Shakers and learn the crafts important to the community's economy. Thus, any craft industry at the North Family Lot prior to the occupation of the Second Family would have been one that could be performed by unskilled workers. It does not appear that there were any crafts practiced at the North Family Lot that made meaningful contributions to the sustainability of the lot.

In 1836, the entire community of Union Village was again reorganized to bring the hierarchical structure of the community in line with the Eastern Shaker villages. As part of this reorganization, the Gathering Order was removed from the North Family Lot to make way for the newly formed Second Family, which consisted of more experienced Shakers from the West Frame and West Brick family lots. In turn, the Gathering Order and the Young Believers from the West Family Lot moved into the West Frame and West Brick Lots. The Second Family included many talented Shakers who practiced a variety of successful craft industries and agriculture. The Second Family stood just below the First Family (consisting of the Center, North House, and South families) in terms of hierarchy, and seems to have been one of the families that newer Shakers from the Gathering Order would join after fully committing to the Shaker life.

The Second Family occupied the North Family Lot for 70 years, from 1836 to 1906. During this period, the family was largely successful in providing for its members and in marketing Shaker goods to the outside world. The lot was the home of the only known commercial pottery among the Shakers, and also produced other goods for sale to the outside world, including brooms, packaged seeds, herbal medicines and extracts, wool, and livestock. Although it was successful in relation to Shaker family lots, the North Family Lot could not avoid the society-wide decline of the Shakers in the latter part of the nineteenth century, and, reduced to a handful of elderly members, it finally ceased to exist as a Shaker entity in 1906. The brick buildings of the North Family Lot were used by a tenant farmer until 1917, when Otterbein Homes acquired the lot as part of their acquisition of Union Village, and converted the North Family Lot first into a home for infirm pensioners. The tenant farmer was moved

into the old Nurse Shop, which had been relocated across the road from the communal house for his use. The tenant farmer occupied the old Nurse Shop until the 1930s. The original intended use for the North Family Lot was as a boy's orphanage, which never actually occurred. Plans to convert some of the old shop buildings that survived into the twentieth century into a hospital never came to fruition, and by 1960, only the communal dwelling remained at the lot. The last residents were removed from the building, and it was demolished in 1965, thus bringing the 150 years of occupation at the North Family Lot to a close.

Demographics of the North Family Lot

In general, the ratio of men to women at the North Family Lot remained fairly consistent over the years of Shaker occupation. Although the total numbers of men and women changed over time, neither gender ever greatly outnumbered the other. We identified a total of 431 individuals as having been occupants of the North Family Lot. Most of the data on the demographic composition of the lot is for the Second Family, with much less data available for the Gathering Order, and hardly any information relating to the Young Believers. Part of this disparity is due to the census data, which only began to list each individual starting in 1850, and part is because the rank and file membership of Gathering Order families was rarely mentioned in Shaker journals and not included in tallies of Union Village membership taken in the 1820s.

Only 38 people could be confirmed as Young Believers residing at the North Family Lot, although at least 150 people were members before the schism of 1828. In all probability, the total number of Young Believers at the North Family Lot between 1815 and 1828 was well over 200 individuals. Most of the identified Young Believers were found in a record of deaths and apostasies at Union Village. From the death records, it appears that members of the Young Believers were fairly distributed among age groups, although there appears to have been a higher rate of death for 20-year-olds. A total of 101 people were positively identified as members of the Gathering Order during their occupation of the North Family Lot between 1828 and 1836. Most of the members were in their 20s and 30s.

For ease of analysis, the demographic study of the Second Family was divided into six periods of roughly ten years each: 1836–1849, 1850–1859, 1860–1869, 1870–1879, 1880–1899, and 1900–1906.

1836–1849: This first period of the Second Family was one with few children present, and most members were active adults in their 30s and 40s. There were 74 members present at the start of the period, and 146 members present overall during the entire period, including 70 men and 75 women.

1850–1859: In the 1850s, there were 80 people present at the start of the period, divided evenly between men and women; and a total of 134 people present for the entire decade, with 74 men and 60 women. Most of the population was in their 40s and 50s, with an increase in the number of children present.

1860–1869: The start of the 1860s had a population of 94 members at the North Family Lot, with a total of 109 people for the entire period, evenly divided between the sexes. The majority of the North Family Lot population was between 50 and 69 years of age in the 1860s, which also marked the first appearance of a noticeable generation gap. No members

were present in 1860 who were in their 40s, and the lot had a large number of children, brought into the family in the hopes they would become productive adult members of the society.

1870–1879: A total of 73 people were present at the North Family Lot in the 1870s, with 34 men and 39 women. There were 61 people at the North Family Lot in 1870, representing a 40 percent drop in population from 1860. Over half of the population in 1870 could be considered elderly. The number of children had dropped to only 12 present in 1870. By 1873, a journal account recorded that the population had declined by half. Possible apostates in the first half of the 1870s include all the members younger than 30 years old, and the 1870s mark the period when the core group of Second Family Shakers began to die off.

1880–1899: The last two decades of the nineteenth century were a continuation of the slow decline of Union Village. In 1880, there were only 53 people at the North Family Lot, and only three adults under the age of 40. Half of the population was over 60 years old, and one-fourth of the population was children. Winter Shakers, people taking advantage of the communal lifestyle of the Shakers as a means of temporary support, were common at the start of the period, but as the community declined, the attractiveness of the Shakers as a temporary respite from economic hardship appears to have waned.

1900–1906: By 1900, it appears there were fewer than 10 people left at the North Family Lot.

The demographic data from the North Family Lot does not appear to support the idea that, as the society's population declined in the nineteenth century, women came to dominate the overall population and leadership roles. At the North Family Lot, the numbers of male and female Shakers remained fairly even up to the end of the nineteenth century. However, other ideas about population trends in Shaker society are supported; in particular, Brewer's five stages of Shaker population (Brewer 1984). Although specifically designed to address the population of the Church Family at New Lebanon, New York, Brewer's stages were found to be adaptable to the Western Shakers as well. The stages included:

I. Early growth, with entire family groups joining the society
II. Stability
III. Graying of society, rise in apostasy
IV. Decline begins, high rate of apostasy
V. Elderly dominate, relaxation of strict behavioral rules

At the North Family Lot, Stage I applies to the Young Believers' tenure; Stage II to the Gathering Order period and the initial years of the Second Family; Stage III to the 1850s and 1860s; Stage IV to the 1870s and 1880s; and Stage V to the last years of the society.

Although apostasy was always a problem in terms of the overall success of the society, we found in our research little information about the rate of apostasy. No comprehensive list of apostates was ever kept, so information on the rate of apostasy at the North Family Lot was restricted to the few people who were mentioned in the journals as leaving the society, and to educated guesses about likely apostates, based on the demographic data. Since information about the general membership of the Gathering Order was sparse, we cannot say much about the retention rate of members, although we do know that at least half of the Young Believers left the society in 1828, and they were likely preceded by other dissatisfied members. More is

known about the apostasy rate for the Second Family. We identified 27 people who apostatized from the Second Family, along with 19 children who were taken away or sent away from the North Family Lot. In addition, we identified 91 potential apostates from the census data, with 32 children that were probably removed from the lot by their parents or other family members. Over three-quarters of the known apostates were males, and it appears that many of those who apostatized were raised as Shakers from childhood, and left upon reaching adulthood. Most known apostates spent less than five years with the Shakers before leaving.

The Shaker Lifestyle at the North Family Lot

The Shakers of the North Family Lot enjoyed a diverse diet, with a variety of fruits, vegetables, and animal products. Faunal analysis of the livestock remains we recovered during the 2005 excavations supports the archival data that shows that Shakers raised cattle and sheep primarily for dairy and wool production, while pigs were raised for consumption. The quality of meat cuts appears to have increased over time, as represented in the archaeological record. In addition, the archaeological record shows that even after the ban on pork belatedly took place at Union Village in 1848 (seven years after the consumption of pork was prohibited by the Millennial Laws), butchered pork remains were still being disposed of at the North Family Lot in the early 1850s.

Because Shakers highly valued the concept of order in both spiritual and physical realms, the study of refuse disposal can give us insight into how tightly the Shaker family groups adhered to the proscribed behaviors of the time. Four distinct patterns of refuse disposal were identified through archaeological excavations at the North Family Lot: refuse pits located near buildings; use of cellars of abandoned buildings as waste receptacles; casual loss in yard areas; and a short-term use of the Garden Area for general household refuse disposal in the 1830s and 1840s. While the patterns of casual loss and use of cellars as receptacles was expected, the location of refuse pits among the buildings of the North Family Lot was somewhat surprising. We expected refuse pits to be present at the edges of the lot, away from the occupied areas, but it appears that some of the pits were placed near buildings for expediency. In addition, the discard of rubbish in an open area like the Garden flies against the Shaker concept of order. This sort of behavior may have been what inspired the specific rules in the 1845 Millennial Laws against using open yards for refuse disposal.

During the tenure of the Second Family, the North Family Lot was a locus of craft industry at Union Village. Profit-based craft industries were used to supplement the economy of individual family lots, which were expected to be self-sufficient. Community-focused crafts were used to provide for the material needs of the family. The North Family Lot was involved in the manufacture and marketing of pottery, brooms, herbal medicines, prepared foods, packaged seeds, woolen goods, carpets, flour, lumber, and livestock. Shaker products were exported to Cincinnati and Lebanon, as well as to small local markets and individuals. Shaker elders sometimes introduced craft industries, but their influence over production was small compared to that of the trustees, who oversaw all financial dealings with the outside world. Craft industries declined at the North Family Lot in relation to the decrease of younger Shakers in the population, who were the members most able to participate in labor-intensive processes, and market forces also played a role in which industries were viable at Union Village.

Future Study

While this report is not a comprehensive description of the social element of the North Family Lot, the 2005 excavations and archival research into this site has both increased the level of knowledge about Union Village and its social history, and provided a base for comparison for future studies. The archival record for Union Village holds a wealth of information still waiting to be scrutinized, and the potential of the archaeological record to yield important information about the lives of Shakers in Ohio has been largely untapped. The possibility for studies of Union Village to greatly add to our understanding of the development and decline of nineteenth-century Shaker society is limitless. Some possible research projects to focus on the social aspect of Union Village life include:

- Comparing artifact disposal patterns from other Union Village family lots with the North Family Lot, to determine if the North Family Lot patterns represent normal Shaker waste disposal
- Producing a comprehensive demographic study of Union Village, identifying as many Shakers as possible and identifying patterns of individual movements between lots and other Shaker communities
- Studying the use of mass-produced ceramics at Union Village during different periods of time and at different family lots, in order to determine if Union Village Shakers had a preference in ceramic wares
- Determining if different family lots exhibited different behaviors in adhering to the Millennial Laws
- Collecting more evidence of Shaker diet by excavating rubbish pits, to answer the research questions posed in Appendix B
- Comparing the craft industries at the North Family Lot to other Union Village lots in terms of diversity
- Following up on the comparison between the general Union Village population and the North Family Lot population by widening the scope to include the other family lots and to include gender

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APPENDIX A. NORTH FAMILY LOT POPULATION TABLES

LIST OF TABLES

Table A1. All known North Family Lot members, 1815-1906

Name	Association	Lifespan	Period of time at NFL
Able, John	Second Family	unknown - 2/2/1839	1836 – Feb. 1839
Able, Nancy	Second Family	1796 - 2/25/1853	ca. 1848 - 1853
Able, Phebe	Second Family	unknown - 6/20/1838	1836 - 1838
Adams, John	Second Family	1835 - ?	ca. 1842 - 1853
Agnew, Allen	Gathering Order	unknown	ca. 1828
Alley, Abijah	Gathering Order	unknown	ca. 1828
Alley, Fannie	Gathering Order	1796 - ?	ca. 1828 - 1830
Anderson, Lucy	Second Family	1797 or 1812 - ?	1836 - pre-1870
Andrews, Anthony	Gathering Order	1781 - ?	ca. 1828 - 1830
Antes, Phillip	Second Family	1799 - 1869	ca. 1828 – 1830; 1868 - 1869
Arkanian?, John	Second Family	1832 - pre-1880	ca. 1880
Babbit, Amasa	Gathering Order	1804 - 9/12/1829	ca. 1829
Babbit, Betsey	Gathering Order	1800 - ?	ca. 1828 - 1832
Babbit, Calvin	Gathering Order	1810 - ?	ca. 1828 - 1830
Babbit, Jacob	Gathering Order	1769 - 8/5/1823	ca. 1815 - 1823
Babbit, James	Second Family	unknown	post-1836 - ca. 1847
Babbit, Jason	Second Family	1799 - ?	post-1836 - ca. 1850
Babbit, John	Second Family	1796 - 12/12/1872	1846 - 1872
Babbit, Luther	Gathering Order	1808 - ?	ca. 1828 - 1834, 1836 - 1838
Babbit, Martin	Second Family	6/13/1812 – 3/14/1858	1836 - 1856
Babbit, Phebe	Second Family	1799 - 11/10/1869	1836 - 1869
Babbit, Sally	Second Family	unknown - 1/11/1844	1836 - 1844
Babbit, Sarah	Gathering Order	1743 - 5/6/1826	ca. 1815 - 1826
Babbit, Sarah Ann	Second Family	1829 - ?	1836 through 1860
Babbit, Tryphena	Second Family	1808 - 1870	1836 through 1870
Babbitt, Aaron	Second Family	3/13/ 1799 - 2/15/1879	1836 - 1852, 1870
Babbitt, Abiathar	Gathering Order / Second Family*	unknown - 9/6/1865	ca. 1831 – 1835; post-1836 - 1842
Babbitt, Amos	Second Family	2/17/1806 – 6/23/1889	1836 - 1889
Babbitt, Job	Gathering Order	1740 - 10/5/1821	ca. 1815 - 1821
Bailey, Charles	Second Family	unknown	1843 - pre-1850
Bailey, Simon	Second Family	unknown	1836 - pre-1850
Baily, Lucy	Gathering Order	1775 - 10/7/1823	ca. 1815 - 1823
Baily, William	Gathering Order	1778 - 9/24/1823	ca. 1815 - 1823
Baker, Ursula	Second Family	1797 - 5/25/1878	ca. 1870
Ball, Fanny	Gathering Order	1788 - 10/3/1825	1823 - 1825
Beales, James	Second Family	1810 - ?	ca. 1870
Beals, Isaac	Second Family	5/1/1804 – 10/12/1887	ca. 1860 – 1880; 1886 - 1887
Beedle, Mary	Gathering Order	12/1/1788 - 3/11/1859	ca. 1828 - 1830
Belcher, Soren	Second Family	1772 - 3/9/1853	1836 - 1853
Belmore, William	Second Family	1837 - ?	1843 through 1860
Bennet, Denison	Second Family	1836 - ?	1850 - 1853
Bennett, Betsey	Gathering Order	unknown	ca. 1831 - 1835
Black, Isaac	Gathering Order	1820 - 1830	ca. 1828 - 1830
Bolton, Aquila	Gathering Order	1773 - ?	ca. 1828 - 1832

* When multiple associations appear in the "Associations" column (such as "Gathering Order / Second Family"), it means that individual was a member of all those groups.

Name	Association	Lifespan	Period of time at NFL
Bonnel, Timothy	Second Family	1795 - 5/12/1879	1836 -1860; 1861 - 1879
Bowers, Mary	Second Family	unknown	1842 - 1845
Boyd, Caty (1)	Second Family	8/12/1788 - 12/8/1886	1836 through 1847; 1860
Boyd, Caty (2)	Second Family	unknown	1836 - 1839
Boyd, Caty (3)	Second Family	10/18/1787 - 3/8/1858	1836 - pre-1850
Boyd, Jethro	Second Family	1804 - 1881	1844 through 1870
Boyd, John J.	Second Family	1804 - pre-1880	post-1870 through 1880
Boyd, Peter	Second Family	ca. 1807 - 1889	1836 - 1845
Brady, Ann	Second Family	1803 - pre-1880	ca. 1880
Brunton, Ann	Gathering Order	unknown	ca. 1832 - April 1833
Buckley, Loren	Second Family	ca. 1853	ca. 1851 - 1853
Burghen, Hannah	Gathering Order	1810 - ?	ca. 1828 - 1830
Burke, Phillip	Second Family	1808 - ?	post-1860 through 1870
Burlingame, Amy	Gathering Order	1799 - 8/2/1825	ca. 1815 - 1825
Calhoun, Dianna	Gathering Order	unknown	ca. 1832 - 1834
Campbell, Edward	Second Family	1840 - ?	1850 - pre-1860
Carrole, Jane	Second Family	1796 - ?	ca. 1860
Carrole, Sydney	Second Family	1794 or 1796 - ?	1836 - pre1860
Case, Aragon	Second Family	1845 - ?	ca. 1860 - pre-1870
Chambers, Anna (1)	Second Family	1825 - ?	ca. 1860 - pre-1870
Chambers, Anna (2)	Second Family	1857 - ?	ca. 1860 - pre-1870
Chase, Collins	Gathering Order	1815 - 1026/1831	ca. 1830 - 1831
Clard, Ben F.	Second Family	1813 - pre-1880	ca. 1880
Clark, Brien	Second Family	1837 - ?	ca. 1850 - pre-1860
Clark, Charles	Second Family	unknown	1851 - pre-1860
Clark, David	Second Family	1836 - ?	1843 - 1851
Clark, Maria A.	Second Family	1839 - ?	1843 - pre-1860
Clark, Oren	Second Family	unknown	1840 - ca. 1853
Clark, Polly	Gathering Order	unknown	post-1831 - 1835
Clark, William Henry	Second Family	unknown	1851 - pre-1860
Clawson, Clara	Second Family	1788 - ?	ca. 1870 - pre-1880
Clawson, Lydia	Second Family	1852 - ?	ca. 1870 - pre-1880
Clenby, Ellen	Second Family	1860 - ?	ca. 1870 - pre-1880
Clingman, Charles	Second Family	1850 - ?	ca. 1868 - pre-1880
Clingman, George	Second Family	1851 or 1852 - ?	ca. 1860 - pre-1880
Clueret?, Ben F.	Second Family	1813 - pre-1880	ca. 1880
Cochran (Coughran), Nancy	Gathering Order / Second Family	1802 - pre-1880	1834 - 1835; ca. 1860 - pre-1880
Cochran, Mary	Second Family	1802 - pre-1880	ca. 1880
Cochran, Sarah	Second Family	1823 - 1908	ca. 1860 - pre-1880
Cochran, William	Second Family	1797 - 11/16/1860	1843 - 1860
Colman, Thomas	Second Family	unknown	1850 - 1854
Cox, Benjamin	Gathering Order	1761 - 10/5/1834	post-1829 - 1834
Crosby, Joanna	Gathering Order	1801 - 1/1/1831?	ca. 1832 - April 1833
Crossman, Robert	Second Family	1841 - ?	1850 - pre-1860
Culan?, David	Gathering Order	1801 - ?	ca. 1828 - 1830
Curry, Blaire?	Second Family	1872 - pre-1880	post-1877 - pre-1880
Curry, Catherine	Second Family	1838 - pre-1880	ca. 1880
Curry, Emma	Second Family	1877 - pre-1880	ca. 1880

Name	Association	Lifespan	Period of time at NFL
Damon, Marcus F.	Second Family	1801 - ?	ca. 1860 - pre-1870
Darrow, Betsey	Gathering Order	1797 - 4/10/1825	ca. 1815 - 1825
Darrow, Celia	Second Family	3/30/1775 - 7/27/60	1/1836 - 12/1836
Darrow, Eunice	Gathering Order	1749 - 6/7/1821	ca. 1815 - 1821
Darrow, James	Gathering Order / Second Family	1789 - 6/11/1875	1823 - 1841
Darrow, Julia	Second Family	1813 - pre-1880	1836 - pre-1850, ca. 1880
Darrow, Mary	Gathering Order	1815 - ?	ca. 1828 - 1830
Darrow, Polly	Gathering Order	1802 - 5/5/1827	ca. 1815 - 1827
Darrow, Ruth	Gathering Order	1806 - ?	ca. 1828 - April 1833
Davis, Elijah	Second Family	unknown	1836 - pre-1850
Davis, John	Second Family	unknown	1861 - pre-1870
Day, Angelina	Second Family	1849 - ?	ca. 1860 - pre-1870
Dennis, William	Second Family	1828 - ?	ca. 1870 - pre-1880
Desmond, Margaret (Martha)	Second Family	1855 - ?	ca. 1860 - pre-1880
Dickerson, Betsey	Gathering Order	1796 - 8/24/1823	ca. 1815 - 1823
Dill, Charity	Second Family	unknown	1846 - 1850
Dill, Harriet	Second Family	1859 - ?	ca. 1870 - pre-1880
Dill, Joseph	Second Family	1842 - 4/22/1855	1846 - 1855
Dill, Sarah Ann	Second Family	1851 - ?	1854 - pre-1870
Dilto, Isaac	Gathering Order	1792 - 9/24/1823	ca. 1815 - 1823
Dilto, Jane	Gathering Order / Second Family	1797 - ?	ca. 1828 - 1835, 1850 - pre-1860
Drake, Harriet	Gathering Order	?	ca. 1831 - 1835
Dudley, Angelina	Second Family	1848 - ?	ca. 1860 - pre-1870
Dudley, Cyrus	Second Family	1850 - ?	ca. 1860 - pre-1870
Dudley, Louis G.	Second Family	1858 - ?	ca. 1860 - pre-1870
Dudley, Mary	Second Family	1842 - ?	ca. 1860 - pre-1870
Dudley, Nancy	Second Family	1854 - ?	ca. 1860 - pre-1870
Dudley, Simpson	Second Family	1852 - ?	ca. 1860 - pre-1870
Dudley, William	Second Family	1843 - ?	ca. 1860 - pre-1870
Easton, Stephen	Second Family	1796 - 1871	1836 - 1871
Eastwood, Joseph	Second Family	1798 - pre-1880?	1836 - pre-1880
Eisley, Fred	Second Family	1801 - pre-1880	ca. 1870 - pre-1880
Elmore, Bernard	Second Family	1840 - pre-1880	ca 1880
Evans, George	Second Family	1846 - ?	ca. 1860 - pre-1870
Evans, Lewis	Second Family	unknown	4/1847 - 10/1847
Evans, Margaret	Second Family	1848 - ?	1853 - pre-1870
Evans, Melissa?	Second Family	1850 - ?	ca. 1860 - pre-1870
Evans, Ruth	Second Family	1837 - ?	1847 - pre-1870
Faith, Lucy	Gathering Order	8/12/1789 - 2/26/1864	ca. 1828 - 1835
Farr, James	Gathering Order	unknown	1831 - 1835
Flagg, Benjamin	Gathering Order / Second Family	1775 - ?	ca. 1832 – 1834; 1836 - pre-1860
Forbes, Mary	Second Family	1855 - ?	ca. 1870 - pre-1880
Galloway, Alice (Achsah?)	Second Family	1787 - ca. 1879	ca. 1836 - ca. 1879
Galloway, Amanda	Second Family	unknown	1836
Gee, Benjamin	Second Family	1792 - ?	1836 - pre-1860
Gee, Hopewell	Second Family	1800 or 1802 - ?	1836 - ca 1860

Name	Association	Lifespan	Period of time at NFL
Gee, John	Second Family	1793 - pre-1880s	1836 - pre-1880
Gerty, Fatima	Second Family	1832 - ?	ca. 1860 - pre-1870
Gerty, Joseph M.	Second Family	1841 - ?	1856 - pre-1870
Gerty, Octavia	Second Family	1837 - ?	ca. 1860 - pre-1870
Gilbert, James	Second Family	1801 - ?	ca. 1860 - pre-1870
Gill, Elizabeth	Second Family	1832 - pre-1880	post-1875 - pre-1880
Gill, George	Second Family	1847 - pre-1880	ca. 1860 - pre-1870; post-1880
Gill, Try	Second Family	1875 - pre-1880	post-1875 - pre-1880
Gilmore, Wallace	Second Family	1838 - ?	1850 - pre-1860
Goetz, John	Second Family	? - pre-1890	? - ca. 1890 - 1906
Goode, Anna	Second Family	1858 - ?	ca. 1870 - pre-1880
Goode, George	Second Family	1803 or 1810 - 7/11/1880	ca. 1860 - pre-1870; post-1870 - 1880
Goodfaith, Sarah	Second Family	unknown	1st half of 1836
Goodman, Sarah	Second Family	1824 - ?	ca. 1850 - pre-1860
Gould, Persis	Second Family	1766 - 12/29/1860	1836 - 1860
Gould, Solomon	Second Family	unknown - 12/25/1838	1836 - 1838
Green, Palma	Gathering Order	1797 - 12/25/1829	ca. 1829
Green, William	Gathering Order	unknown	ca. 1832 - 1834
Gregg, Elias C.	Second Family	1809 - pre-1880	ca. 1880
H, Emily	Second Family	?	post-1836 - pre-1847
Hamer, Mary E.	Second Family	1850 - ?	ca. 1860 - pre-1870
Hammtree, Elsie	Second Family	1871 - pre-1880	post-1875 - pre-1880
Hammtree, Lizzie	Second Family	1872 - pre-1880	post-1875 - pre-1880
Hammtree, Virginia	Second Family	1875 - pre-1880	post-1875 - pre-1880
Hampton, Charles	Gathering Order / Second Family	1792 - ?	ca. 1828 – 1830; ca. 1856
Hampton, Julia	Gathering Order	1791 - 10/23/1865	ca. 1828 - 1835
Hampton, Oliver	Second Family	1805 - 1901	post-1836 - 1845
Hardy, Anna	Second Family	1863 - ?	ca. 1870 - pre-1880
Hardy, Benjamin	Second Family	1814 - ?	ca. 1870 - pre-1880
Hendy, William	Second Family	1862 - pre-1880	ca. 1880
Hill, Cynthia	Gathering Order	1799 - 12/25/1822	ca. 1815 - 1822
Hoffman, Marietta	Second Family	unknown	1844 - pre-1850
Hoffman, Viola	Second Family	1834 - ?	1844 - pre-1850
Holden, Maud	Second Family	1873 - pre-1880	post-1873 - pre-1880
Hollister, Margaret	Second Family	unknown	1843 - 1845
Holoway, Ismael (Samuel)	Second Family	1766 - ?	1836 - ca. 1850
Houston, Eli	Second Family	6/12/1779 – died 6/8/1861	1836; 1838 - 1842
Houston, Isaac Newton	Second Family	1795 - ?	1845 - pre-1860
Houston, Matthew	Gathering Order / Second Family	12/25/1769 – 3/20/1853	1833 - 1835, 1850?
Howard, Benjamin	Second Family	unknown	1836 - pre-1850
Howard, Phebe	Second Family	1759 - 12/20/1852	1836 – 1845; ca 1850 - 1852
Hubbard, Mary	Second Family	1853 - ?	ca. 1870 - pre-1880
Hubbard, Sarah	Second Family	1856 - ?	ca. 1870 - pre-1880
Hughes, Gideon	Gathering Order	unknown - 10/17/1852	ca. 1823? - 1833
Hughes, Samuel	Second Family	unknown	1844 - pre-1850
Hunt, Charles	Second Family	1852 - ?	ca. 1870 - pre-1880
Hunt, Eliza	Gathering Order	1800 - 7/2/1856	ca. 1828 - 1830

Name	Association	Lifespan	Period of time at NFL
Hunt, Jane	Second Family	1861 - ?	ca. 1870 - pre-1880
Hunt, Lee	Second Family	1835 - ?	ca. 1870 - pre-1880
Irons, Lida	Second Family	1872 - pre-1880	post-1872 - pre-1880
Irvin, David	Gathering Order	1783 - 12/25/1828	ca. 1815 - 1828
Irvine, Joseph	Second Family	unknown	1836 - 1843
Irwin, Betty (Hetty)	Second Family	1805 - 3/7/ 1853	1836 - 1853
Jackson, Eunice	Gathering Order	1803 - ?	ca. 1828 - 1835
Jennings, Almire	Second Family	unknown	1836 - pre-1850
Jennings, Eliza A.	Second Family	1830 - ?	1836 - pre-1860
Jennings, Mary Ann	Gathering Order / Second Family	unknown	ca. 1832 - April 1833; 1836-1842
Jennings, Sarah	Gathering Order	1817 - 11/27/32	ca. 1831 - 1832
Keener, Nancy	Gathering Order	1818 - ?	ca. 1828 - 1830
Kellerman?, Viola	Second Family	1834 - ?	ca. 1848 - pre-1860
Kitchel, Ann	Second Family	unknown	1843 - pre-1850
Kitchel, Ashbel	Second Family	8/21/1780 – 3/26/1860	1837 - 1838
Kotter, Samuel	Gathering Order	unknown	ca. 1831 - 1835
Lee, Isaac	Second Family	unknown	1836 - 1837
Lehutz?, John	Second Family	1828 - pre-1880	ca. 1880
Lewis?, Sarah	Second Family	1811 - pre-1880	ca. 1880
Liddel, Betsey	Gathering Order	1796 - 9/23/1835	post-1829 - 1835
Liddel, Mary Ann	Second Family	unknown	1836 - pre-1850
Liddell, Susannah	Second Family	1824 - 1914	1838 - pre-1850
Lloyd, James	Second Family	unknown - 8/21/1844	1840 - 8/21/1844
Lockwood, Betsey	Second Family	unknown	1836 - 1848
Lockwood, Joseph	Second Family	unknown	ca. 1856
Lockwood, Melinda	Gathering Order	unknown	ca. 1832
Lockwood, Priscilla	Second Family	unknown	Nov. 1843 (1 month); 1844 - pre-1850
Lockwood, Ransom	Gathering Order	1810 - 1889	ca. 1828 - 1835
Long, Joseph	Second Family	1850 - ?	ca. 1860 - pre-1880
Longstreth, Joseph	Gathering Order	unknown	ca. 1823? -1829
Longstreth, Margaret	Gathering Order	1790 - ?	ca. 1828 - 1835
Lucas, Sallie	Second Family	1810 - pre-1880	post-1850 - 1860
Manning, Polly	Gathering Order	1801 - ?	ca. 1828 - 1830
Marten, Sophia	Second Family	1810 - pre-1880	ca. 1880
Martin, John	Gathering Order	1804 - 1884	1831 - 1835
Massie, Charles	Second Family	? - pre-1890	ca. 1890
Massie, Nathaniel	Gathering Order	1806 - ?	ca. 1828 – 1830; 1841 - pre-1850
Matson?, Anna	Second Family	1789 - ?	ca. 1850 - pre-1860
McBrian, Emmett	Second Family	1837–1862	1840 - 1862
McCracken, Adeline	Second Family	1825 - ?	1836 - pre-1870
McCracken, Elizabeth	Second Family	1835 - ?	ca. 1848 - 1854
McCracken, Margaret	Second Family	1831 - ?	1836 - pre-1860
McCullen, John	Second Family	unknown	1854 - pre-1860
McCullough, Archy	Second Family	1850 - ?	ca. 1860 - pre-1870
McCullough, Mary Ann	Second Family	1845 - ?	1855 - pre-1860
McKee, Benjamin	Second Family	1834 - ?	1841 - pre-1860
McKee, George	Second Family	1839 - ?	1841 - 1855
McKee, John	Second Family	1835 - ?	1841 - 1850

Name	Association	Lifespan	Period of time at NFL
McKeehen, Alexander	Second Family	1765 - 8/25/1856	1836 - 1856
McMurtrie, Lydia	Gathering Order	1790 - 5/15/1834	ca. 1831 - 1834
McMurtrie, Marilla	Gathering Order	1813 - 3/10/1834	ca. 1831 - 1834
McMurtrie, Simon	Gathering Order	1762 – 12/10/1832	ca. 1828 - 1832
McNemar, James	Second Family	1814 - ?	ca. 1870 - pre-1880
McStewart, Justin	Gathering Order	unknown	ca. 1831 - 1835
Mear, Mary	Second Family	unknown	ca. 1890
Melarky, James	Second Family	1857 - pre-1880	Non-Shaker
Miller, Andrew	Gathering Order	1751 - 2/24/1829	ca. 1815 - 1829
Miller, David	Second Family	1797 or 1798 - ca. 1880?	1836 - pre-1880
Miller, Delia	Second Family	1821 - pre-1880	ca. 1880
Miller, John	Second Family	1839 - ?	1840 - pre-1860
Miner, Clymena	Second Family	unknown	1900 - 1906
Mitchell, Ann M.	Second Family	1842 - ?	ca. 1850 - 1851
Morris, James	Second Family	5/13/1794 – 7/15/1866	1836 - 1866
Morris, Reuben	Second Family	unknown	1836 - pre-1850
Morrison, Cornelius	Gathering Order	unknown	ca. 1831 - 1832
Morten?, Martha	Second Family	1839 - pre-1880	ca. 1880
Moss, Samuel	Gathering Order	1797 - ?	ca. 1828 - 1830
Murphy, Betsy	Second Family	1783 - pre-1870	1836 - pre-1870
Myers, Ann Marie	Second Family	? - pre-1890	ca. 1890 - 1906
Naylor, Polly	Second Family	unknown - 11/18/1850	1836 -1850
Newcom, George	Gathering Order	1769 - 3/8/1829	ca. 1815 - 1829
Newland, Jane	Gathering Order	1819 - ?	ca. 1828 - 1832
Newland, Martha	Gathering Order	1817 - ?	ca. 1828 - 1830
Newland, Polly	Gathering Order	1799 - ?	ca. 1828 - 1830
Newport, Ellen	Second Family	1843 - pre-1880	ca. 1880
Newton, Polly	Second Family	unknown	post-1836 - 1842
Norten, Sophia	Second Family	1810 - ?	ca. 1880
Olmstead, Amanda	Gathering Order / Second Family	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Olmstead, Damaris	Gathering Order / Second Family	1769 - ca. 1860?	ca. 1831 – 1835; 1847 - pre-1860
Olmstead, Ebenezer	Gathering Order	1763 - 10/26/1827	ca. 1815 - 1827
Olmstead, Lucretta	Gathering Order	1804 - 10/8/1826	ca. 1815 - 1826
Parkhurst, Amos	Gathering Order / Second Family	9/11/1801 – 6/20/1881	ca. 1832 – 1835; 1852 - pre-1880
Parkhurst, Ann	Second Family	1791 - ?	ca. 1850 - 1856
Parkhurst, Charlotte	Second Family	1798 - 11/8/1879	1836 – 1860; 1867 - pre-1880
Parkhurst, David	Second Family	1801 - 1885	1836 - 1854
Parkhurst, Enoch	Gathering Order	1811 - 8/3/1822	ca. 1815 - 1822
Parkhurst, Eunice	Second Family	1805 - ?	1836 through 1860
Parkhurst, Hannah	Second Family	1795 - ?	1836 - pre-1870
Parkhurst, Isaac	Gathering Order	1773 - 1/28/1823	ca. 1815 - 1823
Parkhurst, Mary	Gathering Order / Second Family	1775 - 3/12/1853	1836 - 1853
Parkhurst, Mary Ann	Gathering Order	unknown	ca. 1831 - 1832
Parkhurst, Prudence	Second Family	1811 - pre-1880	ca. 1880
Parkhurst, Rueben	Gathering Order	1797 - ?	ca. 1828 - 1832
Parkhurst, Ruth	Gathering Order	1805 - 12/24/1830	ca. 1829 - 1830

Name	Association	Lifespan	Period of time at NFL
Parkhurst, Susanna	Second Family	unknown - 7/1/1849	1836 - 1849
Parkinson, Ann	Second Family	1790 - 8/22/1866	1847 - pre-1850
Parkinson, Betsey	Second Family	1780 - ca. 1870	ca. 1860 - pre-1870
Parkinson, Sarah	Gathering Order	unknown	ca. 1831 - 1835
Parkinson, William	Gathering Order	1733 - 12/12/1818	ca. 1815 - 1818
Pastor, Moses	Second Family	1783 - 9/28/1868	1836 - 1868
Patterson, Caroline	Gathering Order	1822 - ?	ca. 1828 - April 1833
Patterson, James	Gathering Order	1815 - ?	ca. 1828 - 1830
Patterson, Josephus	Gathering Order	1817 - ?	ca. 1828 - 1830
Patterson, Sally	Second Family	1794 - ca. 1880	1836 - pre-1880
Pegg, Caleb	Gathering Order	unknown - 3/14/1839	ca. 1835
Pegg, Mary	Second Family	1779 - 2/28/1853	1836 - 1853
Pelham, Betsey	Gathering Order	1811 - 10/1/1832	ca. 1831 - 1832
Pelham, Duenna	Gathering Order	1810 - 8/19/1835	ca. 1831 - 1835
Pelham, Henry	Gathering Order	1808 - 4/4/1827	ca. 1815 - 1827
Pelham, Richard	Gathering Order / Second Family	5/8/1797 – 7/25/1873	1829-1831; 1842-1847; 1864-1873
Pelham, Susanna	Gathering Order	1805 - 12/21/1830	ca. 1829 - 1830
Pelham, Varnel	Gathering Order	1813 - 3/30/1824	ca. 1815 - 1824
Perdu, Mary	Gathering Order	1816 - ?	ca. 1828 - 1832
Pollack, Allen	Second Family	unknown	1851 - pre-1860
Poor, Hamlin	Second Family	1846 - ?	ca. 1860 - pre-1870
Poor, Harriet	Second Family	1833 - ?	ca. 1860 - pre-1870
Poor, Iantha	Second Family	1835 - ?	ca. 1860 - pre-1870
Poor, Lucy	Second Family	1844 - ?	ca. 1860 - pre-1870
Poor, Newton	Second Family	unknown	post-1850 - 1855
Poor, William	Second Family	1836 - ?	ca. 1860 - pre-1870
Pray (Prey), Elizabeth	Second Family	unknown	1842 - 1847
Pray (Prey), Mary	Second Family	1830 - ?	1849 - pre-1860
Prentis, Charles	Second Family	unknown	1844 - 1845
Preston, Samuel	Gathering Order	1793 - 11/13/1825	ca. 1815 - 1825
Price Jr., William	Second Family	1845 - ?	1850 - pre-1870
Price Sr., William	Second Family	1799 - pre-1880	1850? - pre-1880
Price, Ann	Second Family	6/9/1815 – 12/8/1886	ca. 1870 - 1886
Price, Elisabeth	Second Family	unknown	1850 - pre-1860
Price, George	Second Family	ca. 1850 - ?	ca. 1860 - pre-1870
Price, Lewis	Second Family	unknown	1850 - 1855
Price, Mary Ann	Second Family	1848 - ?	1850 - pre-1870
Prior, Polly	Gathering Order	1772 - ?	ca. 1828 - 1830
Rame, Augustus	Second Family	1848 - ?	ca. 1860 - pre-1870
Rand, Anna	Second Family	1848 - ?	ca. 1860 - pre-1870
Rand, Eugene	Second Family	1853 - ?	ca. 1860 - pre-1870
Rand, Napoleon	Second Family	1846 - ?	ca. 1860 - pre-1870
Rand, Victoria	Second Family	1845 - ?	ca. 1860 - pre-1870
Randal, William	Gathering Order	1796 - 8/24/1823	ca. 1815 - 1823
Redmon, William	Second Family	1802 - 2/2/1875	post-1850 - 1860
Reitbrook, Rudolph	Gathering Order	1759 - 10/8/1829	ca. 1829
Reynolds, William (1)	Second Family	1820 – 5/13/1881	ca. 1870 - pre-1880
Reynolds, William (2)	Second Family	1878 - pre-1880	post-1878 - pre-1880

Name	Association	Lifespan	Period of time at NFL
Rice, Caroline	Second Family	unknown	1842 - 1848
Rice, Henry	Second Family	unknown	1842 - 1848
Rice, Isaac	Second Family	unknown	1842 - 1848
Rice, John	Second Family	unknown	1843 - 1848
Rice, Maria	Second Family	unknown	1842 - 1848
Rice, Mary Jane	Second Family	unknown	1842 - 1844
Roberts, Jane	Second Family	unknown	1847 - pre-1850?
Robinson, Emily	Second Family	1838 - 1897	ca. 1870 - pre-1880
Robinson, John	Gathering Order / Second Family	unknown	ca. 1832 – 1834; 1836 - pre-1850
Robinson, Mary	Second Family	1801 - ?	ca. 1870 - pre-1880
Rodden, Charles	Second Family	1810 - ?	ca. 1870 - pre-1880
Rodric, Francis	Second Family	1810 - ?	ca. 1870 - pre-1880
Rodrigues, Francis	Second Family	1810 - 1/10/1878	ca. 1870 -1871
Ross (Root?), Lydia	Second Family	unknown	ca. 1845 - pre-1850
Ross?, John	Second Family	1832 - pre-1880	ca. 1880
Rowley, John	Gathering Order	1814 - 8/4/1822	ca. 1815 - 1822
Ruddledge, Samuel	Second Family	1866 - ?	ca. 1870 - pre-1880
Rude, Sarah	Second Family	unknown	1836 - pre-1850
Runyon, William	Second Family	2/12/1770 - 11/12/1842	1836 through 1842
Russell, Sanford	Second Family	5/11/1818 – 10/9/1899	1880 - 1899
Rust, Benjamin	Second Family	unknown	1852 - 1853
Rust, William	Second Family	unknown	1852 - pre-1860
Ruttlidge, Eliza	Second Family	1868 - ?	ca. 1870 - pre-1880
Ruttlidge, Harriet	Second Family	1828 - ?	ca. 1870 - pre-1880
Savanna, Amelia	Second Family	1853 - ?	ca. 1860 - pre-1870
Savanna, John	Second Family	1851 - ?	ca. 1860 - pre-1870
Scott, Martha	Gathering Order	ca. 1830? - ?	pre-1835
Scott, Sylvia	Second Family	1799 - 2/11/1873	ca. 1860 - 1873
Sering, Daniel	Second Family	unknown	1839 - pre-1850, 1853
Sering, Patience	Second Family	unknown - 9/15/1843	1836 - 1843
Sharp, Sallie	Second Family	unknown - 4/7/1879	1/1836 - 6/1836
Siebenthal, Louis	Second Family	1848 - ?	1854 - pre-1870
Siebenthal, Lucille	Second Family	1846 - ?	1854 - pre-1870
Slater, Amy	Second Family	7/2/1804 – 10/1890	1836 - 1890
Slater, Jane	Second Family	1797 - ?	ca. 1850 - pre-1860
Slater, Nancy	Second Family	1800 - ?	1836 - pre-1870
Slater, Samuel	Second Family	unknown	8/1840 - 10/1840
Slater?, John	Second Family	1819 - pre-1880	Non-Shaker
Smith, James	Gathering Order	1778 - 3/30/1858	1823 - ca. 1828?
Song, Mary	Second Family	unknown	ca. 1840
Sooker, James	Second Family	unknown	1836 - 1844
Spinning, David	Gathering Order	8/30/1779 – 12/22/1841	1824 - 1832
Stacy, Henry	Second Family	1837 - ?	ca. 1850 - pre-1860
Stacy, J. M.	Second Family	1836 - ?	1850 - pre-1860
Star, Eunice	Second Family	unknown	1836 - 1839
Stechison, John	Second Family	1811 - pre-1880	ca. 1880
Sutton, Sarah	Gathering Order	1748 - 2/16/1823	ca. 1815 - 1823
Symmes, Catherine	Second Family	unknown	1840 - pre-1850

Name	Association	Lifespan	Period of time at NFL
Taylor, Polly	Second Family	1805 - pre-1880	1836 - pre-1850; ca. 1880
Teagarden, Artemisia	Gathering Order	1793 - 8/9/1830	ca. 1829 - 1830
Thurston, Lekine?	Second Family	1838 - ?	ca. 1850 - 1854
Tibbes, Desdemona	Gathering Order	1770 - 7/12/1835	ca. 1831 - 1835
Tibbinghein, Augustus	Gathering Order	1807 - ?	ca. 1828 - 1830
Tibbinghein, Benjamin	Gathering Order	1800 - 8/29/1834	post-1829 - 1834
Tibbinghein, Betsey	Gathering Order	1796 - 1/14/66	ca. 1828 - 1834
Tibbinghein, George	Gathering Order / Second Family	1801 - 2/22/1865	ca. 1828 – 1832; 1836 - 1864
Tibbinghein, Priscilla	Gathering Order	1810 - 11/28/1843	ca. 1828 - 1843
Tibbinghein, Susanna	Gathering Order	1805 - 9/9/1826	ca. 1815 - 1826
Trotter, Eliza	Gathering Order	1811 - 7/23/1832	ca. 1831 - 1832
Trotter, Emerine	Gathering Order	1816 - 10/16/1828	ca. 1820 - 1828
Trotter, Grover	Gathering Order	1813 - ?	ca. 1828 - 1830
Trotter, John	Gathering Order	unknown	ca. 1831 - 1832
Trotter, Nancy	Gathering Order	1782 - 9/14/1823	ca. 1815 - 1823
Trotter, Preston	Gathering Order	1806 - 8/9/1825	ca. 1815 - 1825
Trotter, Robert	Gathering Order	1788 - 8/8/1825	ca. 1815 - 1825
Trotter, Zerelda	Gathering Order	1814 - ?	ca. 1828 - 1830
Vanderall?, Harry?	Second Family	1843 - ?	ca. 1850 - pre-1860
Vandever, Julia H.	Second Family	1850 - ?	ca. 1860 - pre-1870
Vandever, Lucinda	Second Family	1846 - ?	ca. 1860 - pre-1870
Vandever, Martha	Second Family	1848 - ?	ca. 1860 - pre-1870
Vandever, Mary	Second Family	1803 - ?	ca. 1860 - pre-1880
Vandever, Robert	Second Family	1841 - ?	ca. 1860 - pre-1870
Vandever, Vincent	Gathering Order / Second Family	1804 - ?	ca. 1828 – 1835; ca. 1860 - pre-1870
Vansconce, Jacob	Second Family	unknown	1840 - 1841
Varnel, Betsey	Gathering Order	1816 - ?	ca. 1828 - 1830
Wade, William	Gathering Order	1794 - 8/30/1834	post-1829 - 1834
Wallace, Samuel	Second Family	unknown - 4/6/1879	post-1870 - 1879
Walters, Lydia	Second Family	1832 - ?	ca. 1860 - pre-1870
Walters, Viola	Second Family	1857 - ?	ca. 1860 - pre-1870
Wardle, Mary	Second Family	1860 - ?	ca. 1870 - pre-1880
Warner, Robert	Second Family	1853 - ?	ca. 1860 - pre-1870
Warner, Sam	Second Family	1855 - ?	ca. 1860 - pre-1870
Warren, Andrew	Second Family	1842 - ?	Nov. 1842 - pre-1870
Watson, Anna	Second Family	1793 - 3/2/1853	1836 - pre-1850
Watson, Rachel	Second Family	unknown	1841 - pre-1850
Werner, Charles	Second Family	1852 - pre-1880	Non-Shaker
West, Benjamin	Second Family	unknown	1842 - pre-1850
West, Elizabeth	Second Family	1828 - ?	ca. 1847 - pre-1860
West, John	Second Family	unknown	1845 - pre-1860
West, Joseph	Second Family	1824 - ?	ca. 1850 - pre-1870
West, Josephine	Second Family	unknown	post-1836 - 1848
Whaley, Elizabeth	Gathering Order	1758 - 6/6/1819	ca. 1815 - 1819
Wheeler, Anna	Second Family	1867 - ?	ca. 1870 - pre-1880
Wheeler, George	Gathering Order	1820 - ?	ca. 1828 - 1832
Wheeler, Mary	Second Family	1849 - ?	ca. 1870 - pre-1880
Wheeler, Noah	Gathering Order	1794 - ?	ca. 1828 - 1835

Name	Association	Lifespan	Period of time at NFL
Wilson, Dora	Second Family	1870 - pre-1880	post-1870 - pre-1880
Wilson, John	Second Family	unknown	1849 - 1850
Wilson, Samuel	Second Family	1865 - pre-1880	post-1870 - pre-1880
Wiverly, George	Second Family	unknown	1840 - 1841
Woodruff, Simon	Second Family	unknown	post-1836 - 1839
Wroten, Frances	Second Family	1834 - ?	ca. 1848 - pre-1870
Wroten, James	Second Family	1844 - ?	1847 - pre-1860
Wroten, Martha	Second Family	1839 - ?	1847 - pre-1860; ca. 1880
Wroten, Westly	Second Family	unknown	1851 - pre-1860
Wroten, William Henry	Second Family	1841 - ?	1847 - pre-1870

Table A2. Shakers identified as Young Believers at the North Family Lot, ca. 1815–1828

Name	Lifespan	Period of time at NFL
Alley, Abijah	unknown	ca. 1828
Babbit, Jacob	1769 - 8/5/1823	ca. 1815 - 1823
Babbit, Sarah	1743 - 5/6/1826	ca. 1815 - 1826
Babbitt, Job	1740 - 10/5/1821	ca. 1815 - 1821
Baily, Lucy	1775 - 10/7/1823	ca. 1815 - 1823
Baily, William	1778 - 9/24/1823	ca. 1815 - 1823
Ball, Fanny	1788 - 10/3/1825	1823 - 1825
Burlingame, Amy	1799 - 8/2/1825	ca. 1815 - 1825
Darrow, Betsey	1797 - 4/10/1825	ca. 1815 - 1825
Darrow, Eunice	1749 - 6/7/1821	ca. 1815 - 1821
Darrow, James	1789 - 6/11/1875	1823 - 1841
Darrow, Polly	1802 - 5/5/1827	ca. 1815 - 1827
Dickerson, Betsey	1796 - 8/24/1823	ca. 1815 - 1823
Dilto, Isaac	1792 - 9/24/1823	ca. 1815 - 1823
Hill, Cynthia	1799 - 12/25/1822	ca. 1815 - 1822
Hughes, Gideon	unknown - 10/17/1852	ca. 1823? -1833
Irvin, David	1783 - 12/25/1828	ca. 1815 - 1828
Longstreth, Joseph	unknown	ca. 1823? -1829
Miller, Andrew	1751 - 2/24/1829	ca. 1815 - 1829
Newcom, George	1769 - 3/8/1829	ca. 1815 - 1829
Olmstead, Ebenezer	1763 - 10/26/1827	ca. 1815 - 1827
Olmstead, Lucretta	1804 - 10/8/1826	ca. 1815 - 1826
Parkhurst, Enoch	1811 - 8/3/1822	ca. 1815 - 1822
Parkhurst, Isaac	1773 - 1/28/1823	ca. 1815 - 1823
Parkinson, William	1733 - 12/12/1818	ca. 1815 - 1818
Pelham, Henry	1808 - 4/4/1827	ca. 1815 - 1827
Pelham, Varnel	1813 - 3/30/1824	ca. 1815 - 1824
Preston, Samuel	1793 - 11/13/1825	ca. 1815 - 1825
Randal, William	1796 - 8/24/1823	ca. 1815 - 1823
Rowley, John	1814 - 8/4/1822	ca. 1815 - 1822
Smith, James	1778 - 3/30/1858	1823 - ca. 1828?
Spinning, David	8/30/1779 - 12/22/1841	1824 - 1832
Sutton, Sarah	1748 - 2/16/1823	ca. 1815 - 1823
Tibbinghein, Susanna	1805 - 9/9/1826	ca. 1815 - 1826
Trotter, Emerine	1816 - 10/16/1828	ca. 1820 - 1828
Trotter, Nancy	1782 - 9/14/1823	ca. 1815 - 1823
Trotter, Preston	1806 - 8/9/1825	ca. 1815 - 1825
Trotter, Robert	1788 - 8/8/1825	ca. 1815 - 1825
Whaley, Elizabeth	1758 - 6/6/1819	ca. 1815 - 1819

Table A3. 1829 membership list for the North Family Lot

Name	Age
David Spinning	49
Richard Pelham	32
Charles Hampton	37
Aquila Bolton	56
Philip Antes	30
Rueben Parkhurst	32
Simon McMurtrie	67
Anthony Andrews	48
Vincent Vandever	35
Noah Wheeler	35
David Culan	28
Augustus Tibbinghein	21
George Tibbinghein	28
Luther Babbitt	21
Calvin Babbitt	19
Ransom Lockwood	19
Nathaniel Massie	23
Grover Trotter	16
James Patterson	14
Josephus Patterson	12
Samuel Moss	32
Isaac Black	9
George Wheeler	9
Lucy Faith	39
Mary Beedle	40
Betsey Babbitt	29
Eunice Jackson	26
Julia Hampton	38
Jane Dilto	32
Amanda Olmstead	23
Priscilla Tibbinghein	19
Margaret Longstreth	39
Ruth Darrow	23
Polly Prior	57
Polly Manning	28
Polly Newland	30
Fanny Ally	33
Betsey Tibbinghein	33
Eliza Hunt	29
Zerelda Trotter	15
Hannah Burghen	19
Mary Darrow	14
Betsey Varnel	13
Mary Perdu	13
(Illegible name)	13
Martha Newland	12
Jane Newland	10
Nancy Keener	11
Caroline Patterson	7

Table A4. 1831 Gathering Order covenant list

Name	On 1829 List
Julia Hampton	Yes
Betsey Babbitt	Yes
Margaret Longstreth	Yes
Harriet Drake	No
Sarah Parkinson	No
Mary Ann Parkhurst	No
Demaris Olmstead	No
Jane Dilto	Yes
Betsey Bennett	No
Richard Pelham	Yes
Samuel Kotter	No
Simon McMurtry	Yes
Reuben Parkhurst	Yes
Abiathar Babbitt	No
Aquila M. Bolton	Yes
Cornelius Morrison	No
John Potter	No
Vincent Vandever	Yes
George Tillinghein	Yes
Ransom Lockwood	Yes
Justin McStewart	No
John Martin	No
James Farr	No

Table A5. Identified members of the Gathering Order, 1828-1835

Name	Lifespan	Period of time at NFL
Agnew, Allen	unknown	ca. 1828
Alley, Fannie	1796 - ?	ca. 1828 - 1830
Andrews, Anthony	1781 - ?	ca. 1828 - 1830
Babbit, Amasa	1804 - 9/12/1829	ca. 1829
Babbit, Betsey	1800 - ?	ca. 1828 - 1832
Babbit, Calvin	1810 - ?	ca. 1828 - 1830
Babbit, Luther	1808 - ?	ca. 1828 – 1834; 1836 - 1838
Babbitt, Abiathar	unknown - 9/6/1865	ca. 1831 - 1835, post-1836 - 1842
Beedle, Mary	12/1/1788 - 3/11/1859	ca. 1828 - 1830
Bennett, Betsey	unknown	ca. 1831 - 1835
Black, Isaac	1820 - 1830	ca. 1828 - 1830
Bolton, Aquila	1773 - ?	ca. 1828 - 1832
Brunton, Ann	unknown	ca. 1832 - April 1833
Burghen, Hannah	1810 - ?	ca. 1828 - 1830
Calhoun, Dianna	unknown	ca. 1832 - 1834
Chase, Collins	1815 – 10/26/1831	ca. 1830 - 1831
Clark, Polly	unknown	post-1831 - 1835
Cochran (Coughran), Nancy	1802 - pre-1880	1834 – 1835; ca. 1860 - pre-1880
Cox, Benjamin	1761 - 10/5/1834	post-1829 - 1834
Crosby, Joanna	1801 - 1/1/1831?	ca. 1832 - April 1833
Culan?, David	1801 - ?	ca. 1828 - 1830
Darrow, James	1789 - 6/11/1875	1823 - 1841
Darrow, Mary	1815 - ?	ca. 1828 - 1830
Darrow, Ruth	1806 - ?	ca. 1828 - April 1833
Dilto, Jane	1797 - ?	ca. 1828 - 1835, 1850 - pre-1860
Drake, Harriet	?	ca. 1831 - 1835
Faith, Lucy	8/12/1789 - 2/26/1864	ca. 1828 - 1835
Farr, James	unknown	1831 - 1835
Flagg, Benjamin	1775 - ?	ca. 1832 - 1834, 1836 - pre-1860
Green, Palma	1797 - 12/25/1829	ca. 1829
Green, William	unknown	ca. 1832 - 1834
Hampton, Charles	1792 - ?	ca. 1828 - 1830, ca. 1856
Hampton, Julia	1791 - 10/23/65	ca. 1828 - 1835
Houston, Matthew	12/25/1769 – 3/20/1853	1833 - 1835, 1850?
Hughes, Gideon	unknown - 10/17/1852	ca. 1823? - 1833
Hunt, Eliza	1800 - 7/2/1856	ca. 1828 - 1830
Irvin, David	1783 - 12/25/1828	ca. 1815 - 1828
Jackson, Eunice	1803 - ?	ca. 1828 - 1835
Jennings, Mary Ann	unknown	ca. 1832 - April 1833; 1836 - 1842
Jennings, Sarah	1817 - 11/27/32	ca. 1831 - 1832
Keener, Nancy	1818 - ?	ca. 1828 - 1830
Kotter, Samuel	unknown	ca. 1831 - 1835
Liddel, Betsey	1796 - 9/23/1835	post-1829 - 1835
Lockwood, Melinda	unknown	ca. 1832
Lockwood, Ransom	1810 - 1889	ca. 1828 - 1835
Longstreth, Joseph	unknown	ca. 1823? -1829
Longstreth, Margaret	1790 - ?	ca. 1828 - 1835
Manning, Polly	1801 - ?	ca. 1828 - 1830

Name	Lifespan	Period of time at NFL
Martin, John	1804 - 1884	1831 - 1835
Massie, Nathaniel	1806 - ?	ca. 1828 – 1830; 1841 - pre-1850
McMurtrie, Lydia	1790 - 5/15/1834	ca. 1831 - 1834
McMurtrie, Marilla	1813 - 3/10/1834	ca. 1831 - 1834
McMurtrie, Simon	1762 – 12/10/1832	ca. 1828 - 1832
McStewart, Justin	unknown	ca. 1831 - 1835
Miller, Andrew	1751 - 2/24/1829	ca. 1815 - 1829
Morrison, Cornelius	unknown	ca. 1831 - 1832
Moss, Samuel	1797 - ?	ca. 1828 - 1830
Newcom, George	1769 - 3/8/1829	ca. 1815 - 1829
Newland, Jane	1819 - ?	ca. 1828 - 1832
Newland, Martha	1817 - ?	ca. 1828 - 1830
Newland, Polly	1799 - ?	ca. 1828 - 1830
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Olmstead, Damaris	1769 - ca. 1860?	ca. 1831 – 1835; 1847 - pre-1860
Parkhurst, Amos	9/11/1801 – 6/20/1881	ca. 1832 – 1835; 1852 - pre-1880
Parkhurst, Mary	1775 - 3/12/1853	1836 - 1853
Parkhurst, Mary Ann	unknown	ca. 1831 - 1832
Parkhurst, Rueben	1797 - ?	ca. 1828 - 1832
Parkhurst, Ruth	1805 - 12/24/1830	ca. 1829 - 1830
Parkinson, Sarah	unknown	ca. 1831 - 1835
Patterson, Caroline	1822 - ?	ca. 1828 - April, 1833
Patterson, James	1815 - ?	ca. 1828 - 1830
Patterson, Josephus	1817 - ?	ca. 1828 - 1830
Pegg, Caleb	unknown - 3/14/1839	ca. 1835
Pelham, Betsey	1811 - 10/1/1832	ca. 1831 - 1832
Pelham, Duenna	1810 - 8/19/1835	ca. 1831 - 1835
Pelham, Richard	5/8/1797 – 7/25/1873	1829-1831; 1842-1847; 1864-1873
Pelham, Susanna	1805 - 12/21/1830	ca. 1829 - 1830
Perdu, Mary	1816 - ?	ca. 1828 - 1832
Prior, Polly	1772 - ?	ca. 1828 - 1830
Reitbrook, Rudolph	1759 - 10/8/1829	ca. 1829
Robinson, John	unknown	ca. 1832 - 1834, 1836 - pre-1850
Scott, Martha	ca. 1830? - ?	pre-1835
Smith, James	1778 - 3/30/1858	1823 - ca. 1828?
Spinning, David	8/30/1779 – 12/22/1841	1824 - 1832
Teagarden, Artemisia	1793 - 8/9/1830	ca. 1829 - 1830
Tibbes, Desdemona	1770 - 7/12/1835	ca. 1831 - 1835
Tibbinghein, Augustus	1807 - ?	ca. 1828 - 1830
Tibbinghein, Benjamin	1800 - 8/29/1834	post-1829 - 1834
Tibbinghein, Betsey	1796 - 1/14/66	ca. 1828 - 1834
Tibbinghein, George	1801 - 2/22/1865	ca. 1828 - 1832, 1836 - 1864
Tibbinghein, Priscilla	1810 - 11/28/1843	ca. 1828 - 1843
Trotter, Eliza	1811 - 7/23/1832	ca. 1831 - 1832
Trotter, Emerine	1816 - 10/16/1828	ca. 1820 - 1828
Trotter, Grover	1813 - ?	ca. 1828 - 1830
Trotter, John	unknown	ca. 1831 - 1832
Trotter, Zerelda	1814 - ?	ca. 1828 - 1830
Vandever, Vincent	1804 - ?	ca. 1828 – 1835; ca. 1860 - pre-1870

Name	Lifespan	Period of time at NFL
Varnel, Betsey	1816 - ?	ca. 1828 - 1830
Wade, William	1794 - 8/30/1834	post-1829 - 1834
Wheeler, George	1820 - ?	ca. 1828 - 1832
Wheeler, Noah	1794 - ?	ca. 1828 - 1835

Table A6. 1836 Second Family membership list

Name
Eli Houston, Elder
James Darrow, Elder
William Runyon, Trustee
David Parkhurst, Trustee
Rueben Morris
Elijah Davis
Alex McKeehan
John Able
Stephen Easton
James Morris
Joseph Irvine
Luther Babbit
George Tibbinghein
Simon Bailey
Aaron Babbit
James Sooker
Amos Babbit
Moses Pastor
Isaac Lee
Timothy Bonnel
Soren Belcher
Peter Boyd
Martin Babbit
John Gee
Samuel Holloway
Benjamin Howard
David Miller
Solomon Gould
Benjamin Flag
Benjamin Gee
Caty Boyd (1) (eldress, not noted)
Betsey Murphy (eldress, not noted)
Phebe Howard
Persis Gould
Polly Naylor
Amanda Galloway
Sally Babbit
Celia Darrow
Caty Boyd (2) (different from first Caty Boyd)
Sally Patterson

Name
Charlotte Parkhurst
Betsy Lockwood
Sarah Ann Babbit
Priscilla Tibbinghein
Mary Pegg
Mary Parkhurst
Sidney Carol
Nancy Slater
Amy Slater
Tryphena Babbit
Sarah Rude
Julia Darrow
Mary Ann Jennings
Caty Boyd (3) (different from other Caty Boyds)
Phebe Able
Betty Irwin
Phebe Babbit
Achsah (Alice?) Galloway
Patience Sering
Eunice Parkhurst
Hopewell Gee
Susanna Parkhurst
Eunice Star
Lucy Anderson
Adeline McCracken (girl)*
Mary Ann Liddel (girl)
Eliza Ann Jennings (girl)
Margaret McCracken (girl)

* In the original lists, the term "girl" denoted a female child. The term "boy" was not used, either because there were no male children or because boys were not separated from adult males.

Table A7. Second Family members at the North Family Lot, 1836-1849

Name	Lifespan	Period of time at NFL
Able, John	unknown - 2/2/1839	1836 - 2/1839
Able, Nancy	1796 - 2/25/1853	ca. 1848 - 1853
Able, Phebe	unknown - 6/20/1838	1836 - 1838
Adams, John	1835 - ?	ca. 1842 - 1853
Anderson, Lucy	1797 or 1812 - ?	1836 - pre-1870
Babbit, James	unknown	post-1836 - ca. 1847
Babbit, Jason	1799 - ?	post-1836 - ca. 1850
Babbit, John	1796 -12/12/1872	1846 - 1872
Babbit, Martin	6/13/1812 – 3/14/1858	1836 - 1856
Babbit, Phebe	1799 - 11/10/1869	1836 - 1869
Babbit, Sally	unknown - 1/11/1844	1836 - 1844
Babbit, Sarah Ann	1829 - ?	1836 - 1860
Babbit, Tryphena	1808 - 1870	1836 - 1870
Babbitt, Aaron	3/13/1799 - 2/15/1879 (1870 census has conflicting data)	1836 – 1852; 1870
Babbitt, Abiathar	unknown - 9/6/1865	ca. 1831 – 1835; post-1836 - 1842
Babbitt, Amos	2/17/1806 – 6/23/1889	1836 - 1889
Bailey, Charles	unknown	1843 - pre-1850
Bailey, Simon	unknown	1836 - pre-1850
Belcher, Soren	1772 - 3/9/1853	1836 - 1853
Belmore , William	1837 - ?	1843 through 1860
Bonnel, Timothy	1795 - 5/12/1879	1836 -1860; 1861 - 1879
Bowers, Mary	unknown	1842 - 1845
Boyd, Caty (1)	8/12/1788 - 12/8/1886	1836 - 1847, 1860
Boyd, Caty (2)	unknown	1836 - 1839
Boyd, Caty (3)	10/18/1787 - 3/8/1858	1836 - pre-1850
Boyd, Jethro	1804 - 1881	1844 - 1870
Boyd, Peter	ca. 1807 - 1889	1836 - 1845
Carrole, Sydney	1794 or 1796 - ?	1836 - pre-1860
Clark, David	1836 - ?	1843 - 1851
Clark, Maria A.	1839 - ?	1843 - pre-1860
Clark, Oren	unknown	1840 - ca. 1853
Cochran, William	1797 - 11/16/1860	1843 - 1860
Darrow, Celia	3/30/1775 - 7/27/60	1/1836 - 12/1836
Darrow, James	1789 - 6/11/1875	1823 - 1841
Darrow, Julia	1813 - pre-1880	1836 - pre-1850, ca. 1880
Davis, Elijah	unknown	1836 - pre-1850
Dill, Charity	unknown	1846 - 1850
Dill, Joseph	1842 - 4/22/1855	1846 - 1855
Easton, Stephen	1796 - 1871	1836 - 1871
Eastwood, Joseph	1798 - pre-1880?	1836 - pre-1880
Evans, Lewis	unknown	4/1847 - 10/1847
Evans, Melissa?	1850 - ?	ca. 1860 - pre-1870
Evans, Ruth	1837 - ?	1847 - pre-1870
Flagg, Benjamin	1775 - ?	ca. 1832 – 1834; 1836 - pre-1860
Galloway, Alice (Achsah?)	1787 - ca. 1879	ca. 1836 - ca. 1879
Galloway, Amanda	unknown	1836
Gee, Benjamin	1792 - ?	1836 - pre-1860
Gee, Hopewell	1800 or 1802 - ?	1836 - ca. 1860

Name	Lifespan	Period of time at NFL
Gee, John	1793 - pre-1880s	1836 - pre-1880
Goodfaith, Sarah	unknown	1st half of 1836
Gould, Persis	1766 - 12/29/1860	1836 - 1860
Gould, Solomon	unknown - 12/25/1838	1836 - 1838
H, Emily	?	post-1836 - pre-1847
Hampton, Oliver	1805 - 1901	post-1836 - 1845
Hoffman, Marietta	unknown	1844 - pre-1850
Hoffman, Viola	1834 - ?	1844 - pre-1850
Hollister, Margaret	unknown	1843 - 1845
Holoway, Ismael (Samuel)	1766 - ?	1836 - ca. 1850
Houston, Eli	6/12/1779 - died 6/8/1861	1836; 1838 - 1842
Houston, Isaac Newton	1795 - ?	1845 - pre-1860
Howard, Benjamin	unknown	1836 - pre-1850
Howard, Phebe	1759 - 12/20/1852	1836 – 1845; ca. 1850 - 1852
Hughes, Samuel	unknown	1844 - pre-1850
Irvine, Joseph	unknown	1836 - 1843
Irwin, Betty (Hetty)	1805 - 3/7/1853	1836 - 1853
Jennings, Almire	unknown	1836 - pre-1850
Jennings, Eliza A.	1830 - ?	1836 - pre-1860
Jennings, Mary Ann	unknown	ca. 1832 - April 1833; 1836 - 1842
Kellerman?, Viola	1834 - ?	ca. 1848 - pre-1860
Kitchel, Ann	unknown	1843 - pre-1850
Kitchel, Ashbel	8/21/1780 – 3/26/1860	1837 - 1838
Lee, Isaac	unknown	1836 - 1837
Liddel, Mary Ann	unknown	1836 - pre-1850
Liddell, Susannah	1824 - 1914	1838 - pre-1850
Lloyd, James	unknown - 8/21/1844	1840 - 8/21/1844
Lockwood, Betsey	unknown	1836 - 1848
Lockwood, Priscilla	unknown	Nov. 1843 (1 month); 1844 - pre-1850
McBrian, Emmett	1837 – 7/21/1862	1840 - 1862
McCracken, Adeline	1825 - ?	1836 - pre-1870
McCracken, Elizabeth	1835 - ?	ca. 1848 - 1854
McCracken, Margaret	1831 - ?	1836 - pre-1860
McKee, Benjamin	1834 - ?	1841 - pre-1860
McKee, George	1839 - ?	1841 - 1855
McKee, John	1835 - ?	1841 - 1850
McKeehen, Alexander	1765 - 8/25/1856	1836 - 1856
Miller, David	1797 or 1798 - ca. 1880?	1836 - pre-1880
Miller, John	1839 - ?	1840 - pre-1860
Morris, James	5/13/1794 – 7/15/1866	1836 - 1866
Morris, Reuben	unknown	1836 - pre-1850
Murphy, Betsy	1783 - pre-1870	1836 - pre-1870
Naylor, Polly	unknown - 11/18/1850	1836 -1850
Newton, Polly	unknown	post-1836 - 1842
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Olmstead, Damaris	1769 - ca. 1860?	ca. 1831 – 1835; 1847 - pre-1860
Parkhurst, Charlotte	1798 - 11/8/1879	1836 – 1860; 1867 - pre-1880
Parkhurst, David	1801 - 1885	1836 - 1854
Parkhurst, Eunice	1805 - ?	1836 through 1860
Parkhurst, Hannah	1795 - ?	1836 - pre-1870
Parkhurst, Mary	1775 - 3/12/1853	1836 - 1853

Name	Lifespan	Period of time at NFL
Parkhurst, Susanna	unknown - 7/1/1849	1836 - 1849
Parkinson, Ann	1790 - 8/22/1866	1847 - pre-1850
Pastor, Moses	1783 - 9/28/1868	1836 - 1868
Patterson, Sally	1794 - ca. 1880	1836 - pre-1880
Pegg, Mary	1779 - 2/28/1853	1836 - 1853
Pelham, Richard	5/8/1797 – 7/25/1873	1829 – 1831; 1842 – 1847; 1864 - 1873
Pray (Prey), Elizabeth	unknown	1842 - 1847
Pray (Prey), Mary	1830 - ?	1849 - pre-1860
Prentis, Charles	unknown	1844 - 1845
Rice, Caroline	unknown	1842 - 1848
Rice, Henry	unknown	1842 - 1848
Rice, Isaac	unknown	1842 - 1848
Rice, John	unknown	1843 - 1848
Rice, Maria	unknown	1842 - 1848
Rice, Mary Jane	unknown	1842 - 1844
Roberts, Jane	unknown	1847 - pre-1850?
Robinson, John	unknown	ca. 1832 – 1834; 1836 - pre-1850
Ross (Root?), Lydia	unknown	ca. 1845 - pre-1850
Rude, Sarah	unknown	1836 - pre-1850
Runyon, William	2/12/1770 - 11/12/1842	1836 through 1842
Sering, Daniel	unknown	1839 - pre-1850, 1853
Sering, Patience	unknown - 9/15/1843	1836 - 1843
Sharp, Sallie	unknown - 4/7/1879	1/1836
Slater, Amy	7/2/1804 – 10/1890	1836 - 1890
Slater, Nancy	1800 - ?	1836 - pre-1870
Slater, Samuel	unknown	8/1840 - 10/1840
Song, Mary	unknown	ca. 1840
Sooker, James	unknown	1836 - 1844
Star, Eunice	unknown	1836 - 1839
Symmes, Catherine	unknown	1840 - pre-1850
Taylor, Polly	1805 - pre-1880	1836 - pre-1850; ca. 1880
Tibbinghein, George	1801 - 2/22/1865	ca. 1828 – 1832; 1836 - 1864
Vansconce, Jacob	unknown	1840 - 1841
Warren, Andrew	1842 - ?	Nov. 1842 - pre-1870
Watson, Anna	1793 - 3/2/1853	1836 - pre-1850
Watson, Rachel	unknown	1841 - pre-1850
West, Benjamin	unknown	1842 - pre-1850
West, Elizabeth	1828 - ?	ca. 1847 - pre-1860
West, John	unknown	1845 - pre-1860
West, Josephine	unknown	post-1836 - 1848
Wilson, John	unknown	1849 - 1850
Wiverly, George	unknown	1840 - 1841
Woodruff, Simon	unknown	post-1836 - 1839
Wroten, Frances	1834 - ?	ca. 1848 - pre-1870
Wroten, James	1844 - ?	1847 - pre-1860
Wroten, Martha	1839 - ?	1847 - pre-1860; ca. 1880
Wroten, William Henry	1841 - ?	1847 - pre-1870

Table A8. Second Family members at the North Family Lot, 1850-1859

Name	Lifespan	Period of time at NFL
Able, Nancy	1796 - 2/25/1853	ca. 1848 - 1853
Able, Phebe	unknown - 6/20/1838	1836 - 1838
Adams, John	1835 - ?	ca. 1842 - 1853
Anderson, Lucy	1797 or 1812 - ?	1836 - pre-1870
Babbit, Jason	1799 - ?	post-1836 - ca. 1850
Babbit, John	1796 -12/12/1872	1846 - 1872
Babbit, Martin	6/13/1812 – 3/14/1858	1836 - 1856
Babbit, Phebe	1799 - 11/10/1869	1836 - 1869
Babbit, Sarah Ann	1829 - ?	1836 - 1860
Babbit, Tryphena	1808 - 1870	1836 - 1870
Babbitt, Aaron	3/13/1799 - 2/15/1879 (1870 census has conflicting data)	1836 - 1852, 1870
Babbitt, Amos	2/17/1806 – 6/23/1889	1836 - 1889
Belcher, Soren	1772 - 3/9/1853	1836 - 1853
Belmore , William	1837 - ?	1843 through 1860
Bennet, Denison	1836 - ?	1850 - 1853
Bonnel, Timothy	1795 - 5/12/1879	1836 -1860, 1861 - 1879
Boyd, Jethro	1804 - 1881	1844 - 1870
Buckley, Loren	ca. 1853	ca. 1851 - 1853
Campbell, Edward	1840 - ?	1850 - pre-1860
Carrole, Sydney	1794 or 1796 - ?	1836 - pre-1860
Clark, Brien	1837 - ?	ca. 1850 - pre-1860
Clark, Charles	unknown	1851 - pre-1860
Clark, David	1836 - ?	1843 - 1851
Clark, Maria A.	1839 - ?	1843 - pre-1860
Clark, Oren	unknown	1840 - ca. 1853
Clark, William Henry	unknown	1851 - pre-1860
Cochran, William	1797 - 11/16/1860	1843 - 1860
Colman, Thomas	unknown	1850 - 1854
Crossman, Robert	1841 - ?	1850 - pre-1860
Darrow, Celia	3/30/1775 - 7/27/60	1/1836 - 12/1836
Darrow, James	1789 - 6/11/1875	1823 - 1841
Dill, Charity	unknown	1846 - 1850
Dill, Joseph	1842 - 4/22/1855	1846 - 1855
Dill, Sarah Ann	1851 - ?	1854 - pre-1870
Dilto, Jane	1797 - ?	ca. 1828 – 1835; 1850 - pre-1860
Easton, Stephen	1796 - 1871	1836 - 1871
Eastwood, Joseph	1798 - pre-1880?	1836 - pre-1880
Evans, Lewis	unknown	4/1847 - 10/1847
Evans, Margaret	1848 - ?	1853 - pre-1870
Evans, Ruth	1837 - ?	1847 - pre-1870
Flagg, Benjamin	1775 - ?	ca. 1832 – 1834; 1836 - pre-1860
Galloway, Alice (Achsah?)	1787 - ca. 1879	ca. 1836 - ca. 1879
Gee, Benjamin	1792 - ?	1836 - pre-1860
Gee, Hopewell	1800 or 1802 - ?	1836 - ca. 1860
Gee, John	1793 - pre-1880s	1836 - pre-1880
Gerty, Joseph M.	1841 - ?	1856 - pre-1870
Gilmore, Wallace	1838 - ?	1850 - pre-1860

Name	Lifespan	Period of time at NFL
Goodman, Sarah	1824 - ?	ca. 1850 - pre-1860
Gould, Persis	1766 - 12/29/1860	1836 - 1860
Gould, Solomon	unknown - 12/25/1838	1836 - 1838
H, Emily	?	post-1836 - pre-1847
Hampton, Charles	1792 - ?	ca. 1828 – 1830; ca. 1856
Hampton, Oliver	1805 - 1901	post-1836 - 1845
Hoffman, Marietta	unknown	1844 - pre-1850
Hoffman, Viola	1834 - ?	1844 - pre-1850
Hollister, Margaret	unknown	1843 - 1845
Holoway, Ismael (Samuel)	1766 - ?	1836 - ca. 1850
Houston, Eli	6/12/1779 - died 6/8/1861	1836; 1838 - 1842
Houston, Isaac Newton	1795 - ?	1845 - pre-1860
Houston, Matthew	12/25/1769 – 3/20/1853	1833 – 1835;, 1850?
Howard, Phebe	1759 - 12/20/1852	1836 – 1845; ca. 1850 - 1852
Hughes, Samuel	unknown	1844 - pre-1850
Irvine, Joseph	unknown	1836 - 1843
Irwin, Betty (Hetty)	1805 - 3/7/1853	1836 - 1853
Jennings, Almire	unknown	1836 - pre-1850
Jennings, Eliza A.	1830 - ?	1836 - pre-1860
Jennings, Mary Ann	unknown	ca. 1832 - April 1833; 1836 - 1842
Kellerman?, Viola	1834 - ?	ca. 1848 - pre-1860
Kitchel, Ann	unknown	1843 - pre-1850
Liddel, Mary Ann	unknown	1836 - pre-1850
Liddell, Susannah	1824 - 1914	1838 - pre-1850
Lockwood, Joseph	unknown	ca. 1856
Lucas, Sallie	1810 - pre-1880	post-1850 - 1860
Matson?, Anna	1789 - ?	ca. 1850 - pre-1860
McBrian, Emmett	1837 – 7/21/1862	1840 - 1862
McCracken, Adeline	1825 - ?	1836 - pre-1870
McCracken, Elizabeth	1835 - ?	ca. 1848 - 1854
McCracken, Margaret	1831 - ?	1836 - pre-1860
McCullen, John	unknown	1854 - pre-1860
McCullough, Mary Ann	1845 - ?	1855 - pre-1860
McKee, Benjamin	1834 - ?	1841 - pre-1860
McKee, George	1839 - ?	1841 - 1855
McKee, John	1835 - ?	1841 - 1850
McKeehen, Alexander	1765 - 8/25/1856	1836 - 1856
Miller, David	1797 or 1798 - ca. 1880?	1836 - pre-1880
Miller, John	1839 - ?	1840 - pre-1860
Mitchell, Ann M.	1842 - ?	ca. 1850 - 1851
Morris, James	5/13/1794 – 7/15/1866	1836 - 1866
Murphy, Betsy	1783 - pre-1870	1836 - pre-1870
Naylor, Polly	unknown - 11/18/1850	1836 -1850
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Olmstead, Damaris	1769 - ca. 1860?	ca. 1831 – 1835; 1847 - pre-1860
Parkhurst, Amos	9/11/1801 – 6/20/1881	ca. 1832 – 1835; 1852 - pre-1880
Parkhurst, Ann	1791 - ?	ca. 1850 - 1856
Parkhurst, Charlotte	1798 - 11/8/1879	1836 – 1860; 1867 - pre-1880
Parkhurst, David	1801 - 1885	1836 - 1854

Name	Lifespan	Period of time at NFL
Parkhurst, Eunice	1805 - ?	1836 through 1860
Parkhurst, Hannah	1795 - ?	1836 - pre-1870
Parkhurst, Mary	1775 - 3/12/1853	1836 - 1853
Pastor, Moses	1783 - 9/28/1868	1836 - 1868
Patterson, Sally	1794 - ca. 1880	1836 - pre-1880
Pegg, Mary	1779 - 2/28/1853	1836 - 1853
Pollack, Allen	unknown	1851 - pre-1860
Poor, Newton	unknown	post-1850 - 1855
Pray (Prey), Mary	1830 - ?	1849 - pre-1860
Price Jr., William	1845 - ?	1850 - pre-1870
Price Sr., William	1799 - pre-1880	1850? - pre-1880
Price, Elisabeth	unknown	1850 - pre-1860
Price, Lewis	unknown	1850 - 1855
Price, Mary Ann	1848 - ?	1850 - pre-1870
Redmon, William	1802 - 2/2/1875	post-1850 - 1860
Rust, Benjamin	unknown	1852 - 1853
Rust, William	unknown	1852 - pre-1860
Sering, Daniel	unknown	1839 - pre-1850, 1853
Siebenthal, Louis	1848 - ?	1854 - pre-1870
Siebenthal, Lucille	1846 - ?	1854 - pre-1870
Slater, Amy	7/2/1804 – 10/1890	1836 - 1890
Slater, Jane	1797 - ?	ca. 1850 - pre-1860
Slater, Nancy	1800 - ?	1836 - pre-1870
Stacy, Henry	1837 - ?	ca. 1850 - pre-1860
Stacy, J. M.	1836 - ?	1850 - pre-1860
Thurston, Lekine?	1838 - ?	ca. 1850 - 1854
Tibbinghein, George	1801 - 2/22/1865	ca. 1828 – 1832; 1836 - 1864
Vanderall?, Harry?	1843 - ?	ca. 1850 - pre-1860
Warren, Andrew	1842 - ?	Nov. 1842 - pre-1870
West, Elizabeth	1828 - ?	ca. 1847 - pre-1860
West, John	unknown	1845 - pre-1860
West, Joseph	1824 - ?	ca. 1850 - pre-1870
Wilson, John	unknown	1849 - 1850
Wroten, Frances	1834 - ?	ca. 1848 - pre-1870
Wroten, James	1844 - ?	1847 - pre-1860
Wroten, Martha	1839 - ?	1847 - pre-1860; ca. 1880
Wroten, Westly	unknown	1851 - pre-1860
Wroten, William Henry	1841 - ?	1847 - pre-1870

Table A9. Second Family members at the North Family Lot, 1860-1869

Name	Lifespan	Period of time at NFL
Anderson, Lucy	1797 or 1812 - ?	1836 - pre-1870
Antes, Phillip	1799 - 1869	ca. 1828 – 1830; 1868 - 1869
Babbit, John	1796 -12/12/1872	1846 - 1872
Babbit, Martin	6/13/1812 – 3/14/1858	1836 - 1856
Babbit, Phebe	1799 - 11/10/1869	1836 - 1869
Babbit, Sally	unknown - 1/11/1844	1836 - 1844
Babbit, Sarah Ann	1829 - ?	1836 - 1860
Babbit, Tryphena	1808 - 1870	1836 - 1870
Babbitt, Amos	2/17/1806 – 6/23/1889	1836 - 1889
Beals, Isaac	5/1/1804 – 10/12/1887	ca. 1860 – 1880; 1886 - 1887
Belmore , William	1837 - ?	1843 through 1860
Bonnel, Timothy	1795 - 5/12/1879	1836 –1860; 1861 - 1879
Boyd, Caty (1)	8/12/1788 - 12/8/1886	1836 – 1847; 1860
Boyd, Jethro	1804 - 1881	1844 - 1870
Burke, Phillip	1808 - ?	post-1860 - 1870
Carrole, Jane	1796 - ?	ca. 1860
Carrole, Sydney	1794 or 1796 - ?	1836 - pre-1860
Case, Aragon	1845 - ?	ca. 1860 - pre-1870
Chambers, Anna (1)	1825 - ?	ca. 1860 - pre-1870
Chambers, Anna (2)	1857 - ?	ca. 1860 - pre-1870
Clingman, Charles	1850 - ?	ca. 1868 - pre-1880
Clingman, George	1851 or 1852 - ?	ca. 1860 - pre-1880
Clueret?, Ben F.	1813 - pre-1880	ca. 1880
Cochran (Coughran), Nancy	1802 - pre-1880	1834 – 1835; ca. 1860 - pre-1880
Cochran, Sarah	1823 - ?	ca. 1860 - pre-1880
Cochran, William	1797 - 11/16/1860	1843 - 1860
Damon, Marcus F.	1801 - ?	ca. 1860 - pre-1870
Davis, John	unknown	1861 - pre-1870
Day, Angelina	1849 - ?	ca. 1860 - pre-1870
Desmond, Margaret (Martha)	1855 - ?	ca. 1860 - pre-1880
Dill, Sarah Ann	1851 - ?	1854 - pre-1870
Dudley, Angelina	1848 - ?	ca. 1860 - pre-1870
Dudley, Cyrus	1850 - ?	ca. 1860 - pre-1870
Dudley, Louis G.	1858 - ?	ca. 1860 - pre-1870
Dudley, Mary	1842 - ?	ca. 1860 - pre-1870
Dudley, Nancy	1854 - ?	ca. 1860 - pre-1870
Dudley, Simpson	1852 - ?	ca. 1860 - pre-1870
Dudley, William	1843 - ?	ca. 1860 - pre-1870
Easton, Stephen	1796 - 1871	1836 - 1871
Eastwood, Joseph	1798 - pre-1880?	1836 - pre-1880
Evans, George	1846 - ?	ca. 1860 - pre-1870
Evans, Margaret	1848 - ?	1853 - pre-1870
Evans, Melissa?	1850 - ?	ca. 1860 - pre-1870
Evans, Ruth	1837 - ?	1847 - pre-1870
Galloway, Alice (Achsah?)	1787 - ca. 1879	ca. 1836 - ca. 1879
Gee, Hopewell	1800 or 1802 - ?	1836 - ca. 1860
Gee, John	1793 - pre-1880s	1836 - pre-1880
Gerty, Fatima	1832 - ?	ca. 1860 - pre-1870

Name	Lifespan	Period of time at NFL
Gerty, Joseph M.	1841 - ?	1856 - pre-1870
Gerty, Octavia	1837 - ?	ca. 1860 - pre-1870
Gilbert, James	1801 - ?	ca. 1860 - pre-1870
Gill, George	1847 - pre-1880	ca. 1860 - pre-1870; post-1880
Goode, George	1803 or 1810 - 7/11/1880	ca. 1860 - pre-1870; post-1870 - 1880
Gould, Persis	1766 - 12/29/1860	1836 - 1860
Hamer, Mary E.	1850 - ?	ca. 1860 - pre-1870
Long, Joseph	1850 - ?	ca. 1860 - pre-1880
Lucas, Sallie	1810 - pre-1880	post-1850 - 1860
McBrien, Emmett	1837 – 7/21/1862	ca. 1840 - 1862
McCracken, Adeline	1825 - ?	1836 - pre-1870
McCullough, Archy	1850 - ?	ca. 1860 - pre-1870
Miller, David	1797 or 1798 - ca. 1880?	1836 - pre-1880
Morris, James	5/13/1794 – 7/15/1866	1836 - 1866
Murphy, Betsy	1783 - pre-1870	1836 - pre-1870
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Parkhurst, Amos	9/11/1801 – 6/20/1881	ca. 1832 – 1835; 1852 - pre-1880
Parkhurst, Charlotte	1798 - 11/8/1879	1836 - 1860, 1867 - pre-1880
Parkhurst, Eunice	1805 - ?	1836 through 1860
Parkhurst, Hannah	1795 - ?	1836 - pre-1870
Parkinson, Betsey	1780 - ca. 1870	ca. 1860 - pre-1870
Pastor, Moses	1783 - 9/28/1868	1836 - 1868
Patterson, Sally	1794 - ca. 1880	1836 - pre-1880
Pelham, Richard	5/8/1797 – 7/25/1873	1829–1831; 1842–1847; 1864-1873
Poor, Hamlin	1846 - ?	ca. 1860 - pre-1870
Poor, Harriet	1833 - ?	ca. 1860 - pre-1870
Poor, Iantha	1835 - ?	ca. 1860 - pre-1870
Poor, Lucy	1844 - ?	ca. 1860 - pre-1870
Poor, William	1836 - ?	ca. 1860 - pre-1870
Price Jr., William	1845 - ?	1850 - pre-1870
Price Sr., William	1799 - pre-1880	1850? - pre-1880
Price, George	ca. 1850 - ?	ca. 1860 - pre-1870
Price, Mary Ann	1848 - ?	1850 - pre-1870
Rame, Augustus	1848 - ?	ca. 1860 - pre-1870
Rand, Anna	1848 - ?	ca. 1860 - pre-1870
Rand, Eugene	1853 - ?	ca. 1860 - pre-1870
Rand, Napoleon	1846 - ?	ca. 1860 - pre-1870
Rand, Victoria	1845 - ?	ca. 1860 - pre-1870
Redmon, William	1802 - 2/2/1875	post-1850 - 1860
Savanna, Amelia	1853 - ?	ca. 1860 - pre-1870
Savanna, John	1851 - ?	ca. 1860 - pre-1870
Scott, Sylvia	1799 - 2/11/1873	ca. 1860 - 1873
Siebenthal, Louis	1848 - ?	1854 - pre-1870
Siebenthal, Lucille	1846 - ?	1854 - pre-1870
Slater, Amy	7/2/1804 – 10/1890	1836 - 1890
Slater, Nancy	1800 - ?	1836 - pre-1870
Tibbinghein, George	1801 - 2/22/1865	ca. 1828 – 1832; 1836 - 1864
Vandever, Julia H.	1850 - ?	ca. 1860 - pre-1870
Vandever, Lucinda	1846 - ?	ca. 1860 - pre-1870

Name	Lifespan	Period of time at NFL
Vandever, Martha	1848 - ?	ca. 1860 - pre-1870
Vandever, Mary	1803 - ?	ca. 1860 - pre-1880
Vandever, Robert	1841 - ?	ca. 1860 - pre-1870
Vandever, Vincent	1804 - ?	ca. 1828 – 1835; ca. 1860 - pre-1870
Walters, Lydia	1832 - ?	ca. 1860 - pre-1870
Walters, Viola	1857 - ?	ca. 1860 - pre-1870
Warner, Robert	1853 - ?	ca. 1860 - pre-1870
Warner, Sam	1855 - ?	ca. 1860 - pre-1870
Warren, Andrew	1842 - ?	Nov. 1842 - pre-1870
West, Joseph	1824 - ?	ca. 1850 - pre-1870
Wroten, Frances	1834 - ?	ca. 1848 - pre-1870
Wroten, William Henry	1841 - ?	1847 - pre-1870

Table A10. Second Family members at the North Family Lot, 1870-1879

Name	Lifespan	Period of time at NFL
Babbit, John	1796 - 12/12/1872	1846 - 1872
Babbit, Tryphena	1808 - 1870	1836 - 1870
Babbitt, Aaron	3/13/1799 - 2/15/1879 (1870 census has conflicting data)	1836 – 1852; 1870
Babbitt, Amos	2/17/1806 – 6/23/1889	1836 - 1889
Baker, Ursula	1797 - 5/25/1878	ca. 1870
Beales, James	1810 - ?	ca. 1870
Beals, Isaac	5/1/1804 – 10/12/1887	ca. 1860 – 1880; 1886 - 1887
Bonnel, Timothy	1795 - 5/12/1879	1836 –1860; 1861 - 1879
Boyd, Jethro	1804 - 1881	1844 - 1870
Boyd, John J.	1804 - pre-1880	post-1870 - 1880
Burke, Phillip	1808 - ?	post-1860 - 1870
Clawson, Clara	1788 - ?	ca. 1870 - pre-1880
Clawson, Lydia	1852 - ?	ca. 1870 - pre-1880
Clenby, Ellen	1860 - ?	ca. 1870 - pre-1880
Clingman, Charles	1850 - ?	ca. 1868 - pre-1880
Clingman, George	1851 or 1852 - ?	ca. 1860 - pre-1880
Cochran (Coughran), Nancy	1802 - pre-1880	1834 – 1835; ca. 1860 – post-1880
Cochran, Sarah	1823 - ?	ca. 1860 - pre-1880
Curry, Blaire?	1872 - pre-1880	post-1877 - pre-1880
Dennis, William	1828 - ?	ca. 1870 - pre-1880
Desmond, Margaret (Martha)	1855 - ?	ca. 1860 - pre-1880
Dill, Harriet	1859 - ?	ca. 1870 - pre-1880
Easton, Stephen	1796 - 1871	1836 - 1871
Eastwood, Joseph	1798 - pre-1880?	1836 - pre-1880
Eisley, Fred	1801 - pre-1880	ca. 1870 - pre-1880
Forbes, Mary	1855 - ?	ca. 1870 - pre-1880
Galloway, Alice (Achsah?)	1787 - ca. 1879	ca. 1836 - ca. 1879
Gee, John	1793 - pre-1880s	1836 - pre-1880
Gill, Elizabeth	1832 - pre-1880	post-1875 - pre-1880
Gill, Try	1875 - pre-1880	post-1875 - pre-1880

Name	Lifespan	Period of time at NFL
Goode, Anna	1858 - ?	ca. 1870 - pre-1880
Goode, George	1803 or 1810 - 7/11/1880	ca. 1860 - pre-1870; post-1870 - 1880
Hammtree, Elsie	1871 - pre-1880	post-1875 - pre-1880
Hammtree, Lizzie	1872 - pre-1880	post-1875 - pre-1880
Hammtree, Virginia	1875 - pre-1880	post-1875 - pre-1880
Hardy, Anna	1863 - ?	ca. 1870 - pre-1880
Hardy, Benjamin	1814 - ?	ca. 1870 - pre-1880
Holden, Maud	1873 - pre-1880	post-1873 - pre-1880
Hollister, Margaret	unknown	1843 - 1845
Holoway, Ismael (Samuel)	1766 - ?	1836 - ca. 1850
Hubbard, Mary	1853 - ?	ca. 1870 - pre-1880
Hubbard, Sarah	1856 - ?	ca. 1870 - pre-1880
Hunt, Charles	1852 - ?	ca. 1870 - pre-1880
Hunt, Jane	1861 - ?	ca. 1870 - pre-1880
Hunt, Lee	1835 - ?	ca. 1870 - pre-1880
Irons, Lida	1872 - pre-1880	post-1872 - pre-1880
Long, Joseph	1850 - ?	ca. 1860 - pre-1880
McNemar, James	1814 - ?	ca. 1870 - pre-1880
Miller, David	1797 or 1798 - ca. 1880?	1836 - pre-1880
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Parkhurst, Amos	9/11/1801 – 6/20/1881	ca. 1832 – 1835; 1852 - pre-1880
Parkhurst, Charlotte	1798 - 11/8/1879	1836 – 1860; 1867 - pre-1880
Patterson, Sally	1794 - ca. 1880	1836 - pre-1880
Pelham, Richard	5/8/1797 – 7/25/1873	1829 – 1831; 1842 – 1847; 1864 - 1873
Price Sr., William	1799 - pre-1880	1850? - pre-1880
Price, Ann	6/9/1815 – 12/8/1886	ca. 1870 - 1886
Price, Elisabeth	unknown	1850 - pre-1860
Reynolds, William (2)	1878 - pre-1880	post-1878 - pre-1880
Robinson, Emily	1838 - ?	ca. 1870 - pre-1880
Robinson, Mary	1801 - ?	ca. 1870 - pre-1880
Rodden, Charles	1810 - ?	ca. 1870 - pre-1880
Rodrigues, Francis	1810 - 1/10/1878	ca. 1870 -1871
Ruddledge, Samuel	1866 - ?	ca. 1870 - pre-1880
Ruttlidge, Eliza	1868 - ?	ca. 1870 - pre-1880
Ruttlidge, Harriet	1828 - ?	ca. 1870 - pre-1880
Scott, Sylvia	1799 - 2/11/1873	ca. 1860 - 1873
Slater, Amy	7/2/1804 – 10/1890	1836 - 1890
Wallace, Samuel	unknown - 4/6/1879	post-1870 - 1879
Wardle, Mary	1860 - ?	ca. 1870 - pre-1880
Wheeler, Anna	1867 - ?	ca. 1870 - pre-1880
Wheeler, Mary	1849 - ?	ca. 1870 - pre-1880
Wilson, Dora	1870 - pre-1880	post-1870 - pre-1880
Wilson, Samuel	1865 - pre-1880	post-1870 - pre-1880

Table A11. Second Family members at the North Family Lot, 1880-1899

Name	Lifespan	Period of time at NFL
Arkanian?, John	1832 - pre-1880	ca. 1880
Babbitt, Amos	2/17/1806 – 6/23/1889	1836 - 1889
Beals, Isaac	5/1/1804 – 10/12/1887	ca. 1860 – 1880; 1886 - 1887
Boyd, John J.	1804 - pre-1880	post-1870 - 1880
Brady, Ann	1803 - pre-1880	ca. 1880
Clard, Ben F.	1813 - pre-1880	ca. 1880
Clueret?, Ben F.	1813 - pre-1880	ca. 1880
Cochran (Coughran), Nancy	1802 - pre-1880	1834 – 1835; ca. 1860 - pre-1880
Cochran, Mary	1802 - pre-1880	ca. 1880
Cochran, Sarah	1823 - ?	ca. 1860 - pre-1880
Curry, Blaire?	1872 - pre-1880	post-1877 - pre-1880
Curry, Catherine	1838 - pre-1880	ca. 1880
Curry, Emma	1877 - pre-1880	ca. 1880
Darrow, Julia	1813 - pre-1880	1836 - pre-1850, ca. 1880
Eisley, Fred	1801 - pre-1880	ca. 1870 - pre-1880
Elmore, Bernard	1840 - pre-1880	ca. 1880
Gee, John	1793 - pre-1880s	1836 - pre-1880
Gill, Elizabeth	1832 - pre-1880	post-1875 - pre-1880
Gill, George	1847 - pre-1880	ca. 1860 - pre-1870; post-1880
Gill, Try	1875 - pre-1880	post-1875 - pre-1880
Goetz, John	? - pre-1900	ca. 1890 - 1906
Goode, George	1803 or 1810 - 7/11/1880	ca. 1860 - pre-1870; post-1870 -1880
Gregg, Elias C.	1809 - pre-1880	ca. 1880
Hammtree, Elsie	1871 - pre-1880	post-1875 - pre-1880
Hammtree, Lizzie	1872 - pre-1880	post-1875 - pre-1880
Hammtree, Virginia	1875 - pre-1880	post-1875 - pre-1880
Hendy, William	1862 - pre-1880	ca. 1880
Holden, Maud	1873 - pre-1880	post-1873 - pre-1880
Irons, Lida	1872 - pre-1880	post-1872 - pre-1880
Lehutz?, John	1828 - pre-1880	ca. 1880
Lewis?, Sarah	1811 - pre-1880	ca. 1880
Marten, Sophia	1810 - pre-1880	ca. 1880
Massie, Charles	? - pre-1890	ca. 1890
Mear, Mary	unknown	ca. 1890
Miller, Delia	1821 - pre-1880	ca. 1880
Miner, Clymena	unknown	1900 - 1906
Morten?, Martha	1839 - pre-1880	ca. 1880
Myers, Ann Marie	? - pre-1890	ca. 1890 - 1906
Newport, Ellen	1843 - pre-1880	ca. 1880
Norten, Sophia	1810 - ?	ca. 1880
Olmstead, Amanda	1806 - pre-1880	ca. 1829 – 1830; 1843 - pre-1880
Parkhurst, Prudence	1811 - pre-1880	ca. 1880
Price Sr., William	1799 - pre-1880	1850? - pre-1880
Price, Ann	6/9/1815 – 12/8/1886	ca. 1870 - 1886
Reynolds, William (2)	1878 - pre-1880	post-1878 - pre-1880
Ross?, John	1832 - pre-1880	ca. 1880
Russell, Sanford	5/11/1818 – 10/9/1899	1880 - 1899
Slater, Amy	7/2/1804 – 10/1890	1836 - 1890

Name	Lifespan	Period of time at NFL
Stechison, John	1811 - pre-1880	ca. 1880
Taylor, Polly	1805 - pre-1880	1836 - pre-1850; ca. 1880
Wilson, Dora	1870 - pre-1880	post-1870 - pre-1880
Wilson, Samuel	1865 - pre-1880	post-1870 - pre-1880
Wroten, Martha	1839 - ?	1847 - pre-1860; ca. 1880

Table A12. Known Second Family apostates

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (years)	Notes
Adams, John	1835 - ?	ca. 1842 - 1853	12.00	Teamster in 1850, not on 1836 membership list, apostatized 1853
Andrews, Anthony	1781 - ?	ca. 1828 - 1830	3.00	Not on 1836 membership list, apostatized sometime prior to 1845
Babbit, Luther	1808 - ?	ca. 1828 – 1834; 1836 - 1838	10.00	Not on 1831 covenant, 1850 census, went to West lot 1834, on 1836 covenant, apostatized in October 1838
Boyd, Caty (2)	unknown	1836 - 1839	4.00	Apparently a second Caty Boyd, apostatized in 1839, listed as consort of William Boyd
Clark, David	1836 - ?	1843 - 1851	9.00	Noted in anonymous diary as David Hopkins Clark, moved from West Brick, apostatized 1851
Colman, Thomas	unknown	1850 - 1854	5.00	Joined as schoolteacher, apostatized 1854
Dill, Charity	unknown	1846 - 1850	5.00	Brought by father in 1846, apostatized 1850
Galloway, Amanda	unknown	1836	1.00	Apostatized Sept 1836
Hollister, Margaret	unknown	1843 - 1845	3.00	Moved from West Brick, left with children Margaret (Mary) and May Bowers
Irvine, Joseph	unknown	1836 - 1843	8.00	Apostatized in July 1843
Lee, Isaac	unknown	1836 - 1837	2.00	Apostatized in April 1837 from NFL
Lockwood, Ransom	1810 - 1889	ca. 1828 - 1835	8.00	Obituary indicates he may have been a pipe maker, apostatized by 1835
McCracken, Elizabeth	1835 - ?	ca. 1848 - 1854	7.00	Not on 1836 list, apostatized 1854
McKee, George	1839 - ?	1841 - 1855	15.00	Brought to NFL by Eli Houston and David Parkhurst, apostatized 1855
McKee, John	1835 - ?	1841 - 1850	10.00	Farmer, brought to NFL by Eli Houston and David Parkhurst, apostatized 1850
Parkhurst, Mary Ann	unknown	ca. 1831 - 1832	2.00	Went to East family 1832, at Square House in 1836, apostatized Sept 1836
Parkhurst, Rueben	1797 - ?	ca. 1828 - 1832	5.00	Noted as apostatizing from East House 1833
Poor, Newton	unknown	post-1850 - 1855	5.00	Apostatized 1855
Pray (Prey), Elizabeth	unknown	1842 - 1847	6.00	Moves from West Brick, apostatized 1847
Prentis, Charles	unknown	1844 - 1845	2.00	Moved from West Brick to NFL, apostatized 1845
Price, Lewis	unknown	1850 - 1855	6.00	Moved to lot with siblings from West Frame, apostatized 1855
Rice, John	unknown	1843 - 1848	6.00	Moved from West Brick, apostatized 1848

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (years)	Notes
Rice, Mary Jane	unknown	1842 - 1844	3.00	Brought with siblings from Gathering Order, apostatized 1844
Rust, Benjamin	unknown	1852 - 1853	2.00	Apostatized 1853
Slater, Samuel	unknown	8/1840 - 10/1840	0.16	Moved to NFL from Watervliet Oh in August, then to 1st family in Oct. 1840, apostatized 1841
Sooker, James	unknown	1836 - 1844	9.00	Shoemaker, apostatized 1844
Thurston, Lekine?	1838 - ?	ca. 1850 - 1854	5.00	Apostatized 1854
Vansconce, Jacob	unknown	1840 - 1841	2.00	Moved from West Brick to NFL Dec. 1840, apostatized in March 1841
Wilson, John	unknown	1849 - 1850	2.00	Moved from West Frame, apostatized 1850
Wiverly, George	unknown	1840 - 1841	2.00	Moved to NFL from West Brick Dec. 1840, apostatized July 1841
Woodruff, Simon	unknown	post-1836 - 1839	3.00	Apostatized 3/3/1839

Table A13. Known Second Family children removed from North Family Lot

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (in years)	Notes
Bowers, Mary	unknown	1842 - 1845	4.00	Moved to NFL from West Brick, removed by mother, Margaret Hollister
Chambers, Anna (2)	1857 - ?	ca. 1860 - pre-1870	11.00	Possibly daughter of Anna Chambers (1)
Mitchell, Ann M.	1842 - ?	ca. 1850 - 1851	2.00	Taken by mother 1851
Rice, Caroline	unknown	1842 - 1848	7.00	Brought with siblings from Gathering Order, taken to parents in 1848
Rice, Henry	unknown	1842 - 1848	7.00	Brought with siblings from Gathering Order, taken to parents in 1848
Rice, Isaac	unknown	1842 - 1848	7.00	Brought with siblings from Gathering Order, taken to parents in 1848
Rice, Maria	unknown	1842 - 1848	7.00	Moved to NFL from West Lot, taken to parents 1848
Song, Mary	unknown	ca. 1840	1.00	Sent away in 1840, not on 1836 list

Table A14. Possible Second Family apostates at the North Family Lot

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (in years)	Notes
Arkanian?, John	1832 - pre-1880	ca. 1880	1.00	Farm laborer in 1880
Bailey, Charles	unknown	1843 - pre-1850	8.00	Moved from West Brick
Bailey, Simon	unknown	1836 - pre-1850	15.00	
Belmore , William	1837 - ?	1843 through 1860	18.00	Farmer, brought to NFL by mother as a boy
Campbell, Edward	1840 - ?	1850 - pre-1860	11.00	Brought to NFL by mother
Case, Aragon	1845 - ?	ca. 1860 - pre-1870	11.00	Teacher
Chambers, Anna (1)	1825 - ?	ca. 1860 - pre-1870	11.00	
Clark, Brien	1837 - ?	ca. 1850 - pre-1860	11.00	
Clark, Charles	unknown	1851 - pre-1860	9.00	Moved from West Frame
Clark, Maria A.	1839 - ?	1843 - pre-1860	18.00	Noted in anonymous diary as Ann Mariah Clark, moved from west brick
Clark, Oren	unknown	1840 - ca. 1853	14.00	Moved to NFL from West lot as a boy
Clawson, Lydia	1852 - ?	ca. 1870 - pre-1880	10.00	House keeping in 1870
Clenby, Ellen	1860 - ?	ca. 1870 - pre-1880	10.00	Attending school in 1870
Clingman, Charles	1850 - ?	ca. 1868 - pre-1880	12.00	Farm laborer in 1870
Clingman, George	1851 or 1852 - ?	ca. 1860 - pre-1880	20.00	Farm laborer in 1870
Crossman, Robert	1841 - ?	1850 - pre-1860	10.00	Joined as boy
Curry, Catherine	1838 - pre-1880	ca. 1880	1.00	House keeping in 1880
Davis, Elijah	unknown	1836 - pre-1850	15.00	
Davis, John	unknown	1861 - pre-1870	9.00	
Day, Angelina	1849 - ?	ca. 1860 - pre-1870	10.00	
Desmond, Margaret (Martha)	1855 - ?	ca. 1860 - pre-1880	20.00	Attending school in 1870
Dudley, Angelina	1848 - ?	ca. 1860 - pre-1870	10.00	
Dudley, Mary	1842 - ?	ca. 1860 - pre-1870	10.00	Bonnet maker
Dudley, William	1843 - ?	ca. 1860 - pre-1870	10.00	Farmer
Elmore, Bernard	1840 - pre-1880	ca. 1880	1.00	Farm laborer in 1880
Evans, George	1846 - ?	ca. 1860 - pre-1870	10.00	
Evans, Margaret	1848 - ?	1853 - pre-1870	18.00	
Evans, Melissa?	1850 - ?	ca. 1860 - pre-1870	10.00	
Evans, Ruth	1837 - ?	1847 - pre-1870	24.00	Dress maker
Forbes, Mary	1855 - ?	ca. 1870 - pre-1880	10.00	House keeping
Gerty, Joseph M.	1841 - ?	1856 - pre-1870	14.00	Farmer and mechanic, moved from Gathering Order
Gill, Elizabeth	1832 - pre-1880	post-1875 - post-1880	6.00	House keeping in 1880
Gill, George	1847 - pre-1880	ca. 1860 - pre-1870; post-1880	12.00	Farm laborer in 1880
Gilmore, Wallace	1838 - ?	1850 - pre-1860	10.00	Joined as boy
Hendy, William	1862 - pre-1880	ca. 1880	1.00	Farm laborer in 1880
Howard, Benjamin	unknown	1836 - pre-1850	15.00	
Hunt, Charles	1852 - ?	ca. 1870 - pre-1880	10.00	Farm laborer
Hunt, Lee	1835 - ?	ca. 1870 - pre-1880	10.00	Farm laborer
Jennings, Almire	unknown	1836 - pre-1850	14.00	On girls list
Kellerman?, Viola	1834 - ?	ca. 1848 - pre-1860	12.00	
Lehutz?, John	1828 - pre-1880	ca. 1880	1.00	Farm laborer in 1880
Long, Joseph	1850 - ?	ca. 1860 - pre-1880	10.00	Farm laborer

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (in years)	Notes
McCracken, Adeline	1825 - ?	1836 - pre-1870	34.00	Listed with girls on 1836 list
McCracken, Margaret	1831 - ?	1836 - pre-1860	24.00	Possibly the "Margaretta" in 3/17/1847 Slater diary, listed with girls on 1836 list
McCullen, John	unknown	1854 - pre-1860	6.00	Not on 1860 census
McCullough, Archy	1850 - ?	ca. 1860 - pre-1870	10.00	
McCullough, Mary Ann	1845 - ?	1855 - pre-1860	5.00	Brought to NFL as girl
McKee, Benjamin	1834 - ?	1841 - pre-1860	19.00	Gardener, brought to NFL by Eli Houston and David Parkhurst
Mear, Mary	unknown	ca. 1890	1.00	Noted as being brought home from Lebanon
Miller, John	1839 - ?	1840 - pre-1860	20.00	Moved to NFL from West lot as a 1-year-old boy
Morten?, Martha	1839 - pre-1880	ca. 1880	1.00	
Newport, Ellen	1843 - pre-1880	ca. 1880	1.00	House keeping in 1880
Pollack, Allen	unknown	1851 - pre-1860	9.00	
Poor, Hamlin	1846 - ?	ca. 1860 - pre-1870	10.00	
Poor, Harriet	1833 - ?	ca. 1860 - pre-1870	10.00	Seamstress
Poor, Iantha	1835 - ?	ca. 1860 - pre-1870	10.00	
Poor, Lucy	1844 - ?	ca. 1860 - pre-1870	10.00	
Poor, William	1836 - ?	ca. 1860 - pre-1870	10.00	Teacher
Pray (Prey), Mary	1830 - ?	1849 - pre-1860	11.00	Moved to NFL 1849
Price Jr., William	1845 - ?	1850 - pre-1870	20.00	Farmer in 1860, moved to lot with siblings from West Frame
Price, Elisabeth	unknown	1850 - pre-1860	10.00	Moved to lot with siblings from West Frame
Price, Mary Ann	1848 - ?	1850 - pre-1870	20.00	Moved to lot with siblings from West Frame
Rame, Augustus	1848 - ?	ca. 1860 - pre-1870	10.00	
Rand, Anna	1848 - ?	ca. 1860 - pre-1870	10.00	
Rand, Eugene	1853 - ?	ca. 1860 - pre-1870	10.00	
Rand, Napoleon	1846 - ?	ca. 1860 - pre-1870	10.00	Ox driver
Rand, Victoria	1845 - ?	ca. 1860 - pre-1870	10.00	
Roberts, Jane	unknown	1847 - pre-1850?	4.00	Mentioned as brought from West Brick March 3, 1847
Rust, William	unknown	1852 - pre-1860	8.00	
Siebenthal, Louis	1848 - ?	1854 - pre-1870	16.00	Moved from West Brick
Siebenthal, Lucille	1846 - ?	1854 - pre-1870	16.00	Moved from West Brick
Stacy, Henry	1837 - ?	ca. 1850 - pre-1860	10.00	
Stacy, J. M.	1836 - ?	1850 - pre-1860	10.00	Brought to NFL by father
Vanderall?, Harry?	1843 - ?	ca. 1850 - pre-1860	10.00	
Vandever, Julia H.	1850 - ?	ca. 1860 - pre-1870	10.00	
Vandever, Lucinda	1846 - ?	ca. 1860 - pre-1870	10.00	
Vandever, Martha	1848 - ?	ca. 1860 - pre-1870	10.00	
Vandever, Robert	1841 - ?	ca. 1860 - pre-1870	10.00	Farmer and mechanic
Walters, Lydia	1832 - ?	ca. 1860 - pre-1870	10.00	
Warren, Andrew	1842 - ?	Nov. 1842 - pre-1870	27.92	Farmer in 1870, moved from West Frame as a baby?
Watson, Rachel	unknown	1841 - pre-1850	9.00	Moved to NFL from 1st family

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (in years)	Notes
West, Benjamin	unknown	1842 - pre-1850	8.00	Moved to NFL in 1842, not on 1850 census
West, Elizabeth	1828 - ?	ca. 1847 - pre-1860	13.00	Not on 1836 list
West, John	unknown	1845 - pre-1860	15.00	Moved from West Frame
Wheeler, Anna	1867 - ?	ca. 1870 - pre-1880	10.00	At home
Wheeler, Mary	1849 - ?	ca. 1870 - pre-1880	10.00	House keeping
Wilson, Samuel	1865 - pre-1880	post-1870 - post-1880	10.00	Farm laborer in 1880
Wroten, Frances	1834 - ?	ca. 1848 - pre-1870	22.00	
Wroten, James	1844 - ?	1847 - pre-1860	13.00	
Wroten, William Henry	1841 - ?	1847 - pre-1870	23.00	Botanist

Table A15. Possible Second Family children removed from North Family Lot

Name	Lifespan	Period of time at NFL	Possible length of time at NFL (in years)	Notes
Campbell, Edward	1840 - ?	1850 - pre-1860	11.00	Brought to NFL by mother
Chambers, Anna (2)	1857 - ?	ca. 1860 - pre-1870	4.00	Possibly daughter of Anna Chambers (1)
Curry, Blaire?	1872 - pre-1880	post-1877 - pre-1880	1.00	
Curry, Emma	1877 - pre-1880	ca. 1880	15.00	
Desmond, Margaret (Martha)	1855 - ?	ca. 1860 - pre-1880	11.00	Attending school in 1870
Dill, Harriet	1859 - ?	ca. 1870 - pre-1880	6.00	Attending school in 1870
Dill, Sarah Ann	1851 - ?	1854 - pre-1870	16.00	Brought by mother
Dudley, Louis G.	1858 - ?	ca. 1860 - pre-1870	10.00	
Dudley, Nancy	1854 - ?	ca. 1860 - pre-1870	10.00	
Dudley, Simpson	1852 - ?	ca. 1860 - pre-1870	10.00	
Gill, Try	1875 - pre-1880	post-1875 - pre-1880	12.00	
Goode, Anna	1858 - ?	ca. 1870 - pre-1880	6.00	Attending school in 1870
Hammtree, Elsie	1871 - pre-1880	post-1875 - pre-1880	6.00	
Hammtree, Lizzie	1872 - pre-1880	post-1875 - pre-1880	6.00	
Hammtree, Virginia	1875 - pre-1880	post-1875 - pre-1880	7.00	
Hardy, Anna	1863 - ?	ca. 1870 - pre-1880	8.00	Attending school in 1870
Hoffman, Marietta	unknown	1844 - pre-1850	6.00	Brought to NFL as girl by Peter Boyd
Hoffman, Viola	1834 - ?	1844 - pre-1850	6.00	Brought to NFL as girl by Peter Boyd
Holden, Maud	1873 - pre-1880	post-1873 - pre-1880	14.00	
Hubbard, Sarah	1856 - ?	ca. 1870 - pre-1880	9.00	Attending school in 1870
Irons, Lida	1872 - pre-1880	post-1872 - pre-1880	3.00	
Rand, Eugene	1853 - ?	ca. 1860 - pre-1870	10.00	
Reynolds, William (2)	1878 - pre-1880	post-1878 - pre-1880	4.00	
Ruddledge, Samuel	1866 - ?	ca. 1870 - pre-1880	10.00	Attending school in 1870
Savanna, Amelia	1853 - ?	ca. 1860 - pre-1870	10.00	
Savanna, John	1851 - ?	ca. 1860 - pre-1870	10.00	
Walters, Viola	1857 - ?	ca. 1860 - pre-1870	10.00	
Wardle, Mary	1860 - ?	ca. 1870 - pre-1880	3.00	Attending school in 1870
Warner, Robert	1853 - ?	ca. 1860 - pre-1870	10.00	
Warner, Sam	1855 - ?	ca. 1860 - pre-1870	10.00	
Wheeler, Anna	1867 - ?	ca. 1870 - pre-1880	10.00	At home
Wilson, Dora	1870 - pre-1880	post-1870 - pre-1880	10.00	Probable sister of Samuel Wilson

APPENDIX B. ANIMAL REMAINS FROM PHASE III INVESTIGATIONS AT THE NORTH FAMILY LOT UNION VILLAGE, OHIO (33WA407)

Anne B. Lee

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Animal Remains from Phase III Investigations at the North Family Lot, Union Village, Ohio (33WA407)

By Anne B. Lee

Introduction

Identifying and analyzing animal remains (typically referred to as zooarchaeology) contributes a vast and diverse amount of information on many areas of interest to both archaeologists and the general public. Animal remains provide insights into past environmental conditions, site formation processes, and social phenomena such as diet, animal husbandry, and craft production. The Union Village Shakers were well known for their animal husbandry and stock production, both for internal consumption (as food and raw materials), and outside sales. As discussed in this volume, the Union Village Shakers are credited with developing the popular Poland-China breed of swine in the early 1800s and were renowned for the quality of their shorthorn cattle herds, particularly in the mid 1800s. Sheep were also kept at Union Village, primarily as a source of wool for the textile industry. Given the importance of livestock in the lives of the Union Village Shakers, we emphasized analyzing the recovered animal remains. This appendix reports the results of that analysis and addresses the following topics:

- The methods of collecting and manipulating the information used in the analysis
- The number and diversity of animal species represented in the animal bone collection
- Inferences about the role of animals in the Shaker economy over time
- The worked-bone (bone that has been modified by humans) artifact collection

Methods

The first step in analyzing animal bones from archaeological sites is to identify the part of the skeleton (the skull, leg bone, and so on) and the type of animal it came from. Analysts typically use identification manuals and a reference (or comparative) collection of known animal skeletons to help in this task. For the faunal assemblage from the North Family Lot, Hardlines Design Company (HDC) used modern skeletons of wild and domesticated animals from the personal comparative collection of the analyst (A. B. Lee), as well as from HDC's comparative collection. A modern domestic cow skeleton of known sex, age, and breed was added specifically for this project.

The primary identification manuals we consulted are well-known texts by Gilbert (1990), Gilbert et al. (1985), Hillson (1986, 1995), Olsen (1968, 1964, 1979), Schmid (1972), and Sisson and Grossman (1953). Other references frequently used for this analysis include works by Decker et al. (1987), Grayson (1984), Lyman (1994), Prummel (1987a, 1987b, 1988), Prummel and Frisch (1986), Reitz and Wing (1999), Silver (1970), Sweetman (1943), Taber (1971), and Von den Driesch (1976).

Whenever possible, we recorded the age and sex of the animal, as well as information on the condition of the bone (how well it was preserved) and all cultural modifications (for example, exposure to fire, cut marks, manufacturing techniques, and use wear). For this report, we used the following naming conventions for the scientific name of an animal:

- When it was not possible to identify an element to the species level, we applied the nearest taxonomic unit, such as class or order.
- If a positive species identification was not possible, we used the abbreviation "cf." (from the Latin *confere*, to compare) to indicate the most likely taxonomic designation.
- When a standard taxonomic designation was not possible, we used robust categories such as small, medium, and large mammal; these robust categories are based on the gross size and morphology of a bone fragment or, in the case of long bone fragments, the average diameter of the shaft.

This analysis employs two basic descriptive statistics commonly found in zooarchaeological research:

- Number of Identified Specimens (NISP): The total count of all specimens examined. This number is in the Count (or CT) column of the appropriate tables.
- Minimum Number of Individuals (MNI): We derived a basic MNI by examining paired skeletal elements and calculating how many individual animals are present. For example, the presence of four left pig thigh bones indicates that a minimum of four different pigs is represented in the assemblage. A more accurate MNI can be derived from the basic MNI combined with information on age classes and dated deposits.

By comparing the NISP to the MNI, we can gain clues about how fragmented an assemblage is, or in other words, among all the specimens examined, how many individuals can we identify?

Assemblage Composition and Spatial Distribution

A total of 2,762 animal bone fragments weighing 25.97 kilograms (57.25 lbs) were collected from the HDC Phase III investigations at the North Family Lot, Union Village, Ohio. Also recovered were an additional 48 worked bone artifacts, weighing 200.5 grams (7 oz). The range of animals represented in all deposits sampled during this investigation is summarized in Table B1. In all deposits, the remains of aquatic resources (such as clams and fish) are noticeably infrequent, and the remains of reptiles (such as snakes and turtles) are completely absent. As expected, the most visible animals in all deposits sampled were domesticated species that are typical of historical Euro-American agricultural sites (cow, pig, sheep, turkey, and chicken), and pest species (such as rats and members of the squirrel family).

Animal bone occurred throughout the excavated portion of the North Family Lot in a variety of contexts (see Figure 1). The animal remains came from one of two broadly defined contexts. The first context includes specimens with poor provenience, such as those recovered from a disturbed area or a rodent hole, and those not recovered from a Shaker-period deposit. The second context includes specimens recovered from deposits that were clearly associated with the Shaker occupation of the site and could therefore be used to address issues of interest to Shaker researchers, such as diet and craft production.

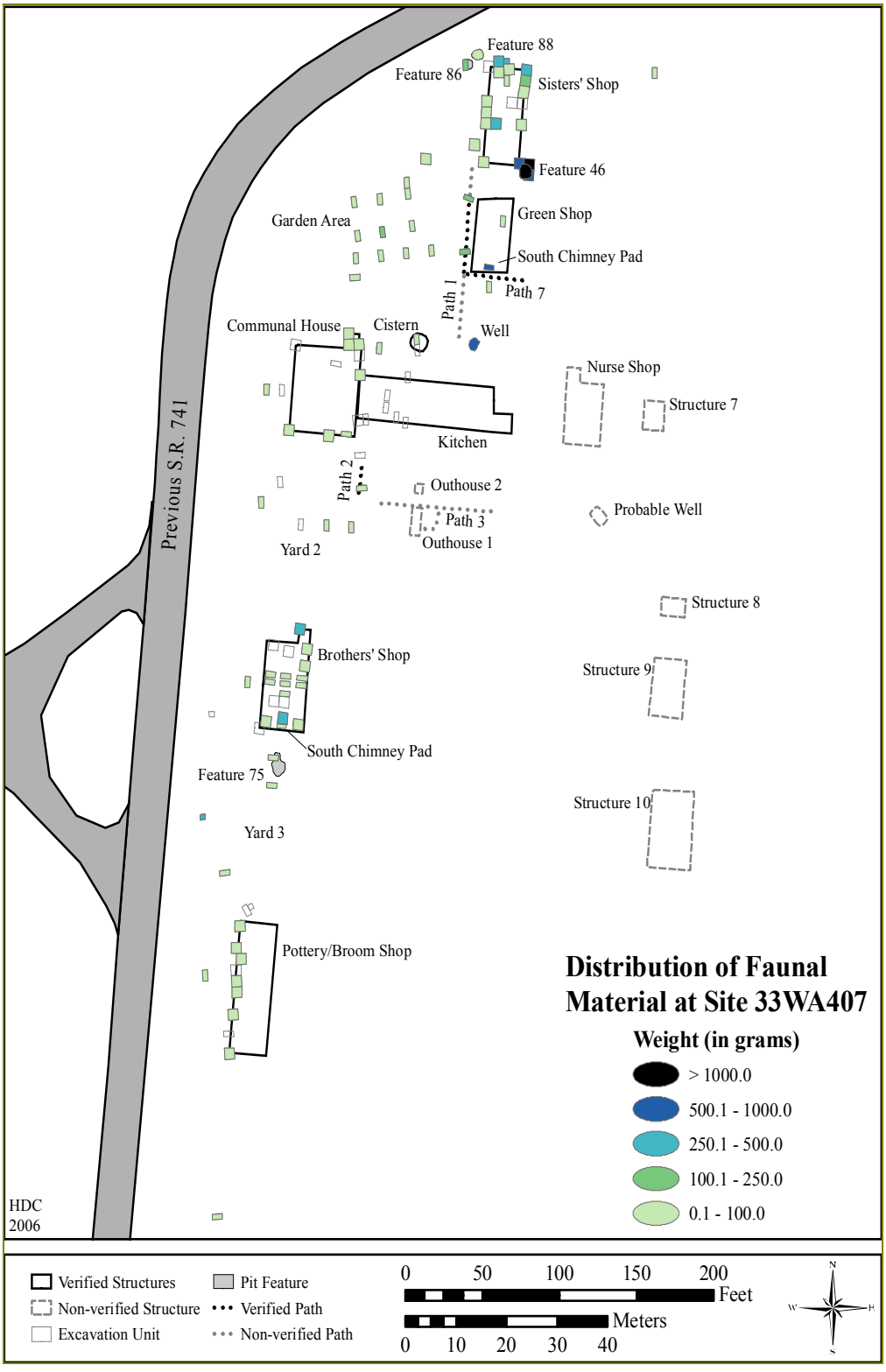

Figure 1. Distribution of all animal remains by weight

Table B1. Summary of total faunal assemblage composition

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
	INVERTEBRATES					
Bivalvia	bivalves and clams (hinged-shell molluscs)	15	<1	10.5	<1	1
	VERTEBRATES					
Vertebrata	unidentified vertebrate	4	<1	0.5	<1	
Osteichthyes	bony fish	1	<1	0.1	<1	1
cf. Amphibia	cf. amphibian	1	<1	0.1	<1	
Amphibia	unidentified amphibian	4	<1	0.3	<1	1
Aves	small-to-medium bird	2	<1	0.4	<1	
Aves	medium bird	32	1.2	14.5	<1	
Aves	medium-to-large bird	98	3.5	74.3	<1	
Aves	large bird	99	3.6	22.9	<1	
Passeriforme	perching birds	1	<1	0.2	<1	1
Galliforme	turkeys, pheasants, quail & other fowl	7	<1	13.0	<1	
cf. *Meleagris gallopavo*	cf. domestic turkey	1	<1	5.5	<1	
Meleagris gallopavo	domestic turkey	5	<1	16.5	<1	2
cf. *Gallus gallus domesticus*	cf. domestic chicken	7	<1	8.4	<1	
Gallus gallus domesticus	domestic chicken	2	<1	9.4	<1	1
Mammalia	mammal	72	2.6	21.1	<1	
Mammalia	very small mammal	6	<1	0.3	<1	
Mammalia	small mammal	28	1.0	9.7	<1	
Mammalia	small-to-medium mammal	90	3.3	46.7	<1	
Mammalia	medium mammal	201	7.3	215.8	<1	
Mammalia	medium-to-large mammal	917	33.2	2,581.2	9.9	
Mammalia	large mammal	148	5.4	775.2	3.0	
cf. *Sylvilagus floridanus*	cf. eastern cottontail rabbit	5	<1	4.5	<1	
Sylvilagus floridanus	eastern cottontail rabbit	29	1.0	34.5	<1	6
Rodentia	rodents	3	<1	2.5	<1	
Rodentia	small rodent	5	<1	2.0	<1	
Rodentia	small-to-medium rodent	1	<1	0.3	<1	
Rodentia	medium rodent	3	<1	1.7	<1	
Sciuridae	squirrels	1	<1	0.7	<1	
Small Sciuridae	small squirrel	2	<1	0.6	<1	
cf. *Marmota monax*	cf. woodchuck	4	<1	6.0	<1	
Marmota monax	woodchuck	4	<1	20.6	<1	2
Sciurus sp.	tree squirrel species	3	<1	0.7	<1	
cf. *Sciurus carolinensis*	cf. eastern gray squirrel	2	<1	0.2	<1	
cf. *Tamias striatus*	cf. eastern chipmunk	1	<1	0.1	<1	
cf. *Rattus norvegicus*	cf. Norway rat	23	<1	6.5	<1	
Rattus norvegicus	Norway rat	202	7.3	35.9	<1	13
Artiodactyla	even-toed ungulates	6	<1	12.0	<1	
Bovidae	cattle, goats, sheep, and relatives	1	<1	1.0	<1	
cf. *Bos taurus*	cf. domestic cow	17	<1	834.9	3.2	
Bos taurus	domestic cow	146	5.3	12,458.9	48.0	9
cf. *Ovis aries*	cf. domestic sheep	24	<1	191.7	<1	
Ovis aries	domestic sheep	69	2.5	938.7	3.6	10

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
cf. *Sus scrofa*	cf. domestic pig	91	3.3	843.9	3.2	
Sus scrofa	domestic pig	379	13.7	6,747.9	26.0	18
TOTAL		**2,762**	**100**	**25,972.4**	**100**	**65**

Table B2 summarizes the provenience, count, and weight of animal bones with poor or non-Shaker proveniences, which are a minority (26% by count and 14% by weight) of the entire sample collected. Non-worked animal remains from poorly provenienced or non-Shaker deposits are not discussed in any depth in this report series.

Table B3 and Table B4 summarize the provenience, count, and weight of animal bones clearly associated with the Shaker occupation of the site. The discussion on Shaker customs and traditions for food (known as "foodways") derives from this set of information. All modified or worked bone, regardless of context, is discussed in detail.

Table B2. Summary of faunal remains from poorly provenienced or non-Shaker deposits

Area Designation	Probable Fill Date	Animal Bone CT	Animal Bone WT (g)
Path 1	General 19th & 20th century	16	421.8
Path 2	General 19th & 20th century	6	40.0
Path 4	General 19th & 20th century	21	51.7
Yard 2	General 19th & 20th century	9	12.1
Yard 3	General 19th & 20th century	14	6.8
Fence 1	Unknown	27	484.1
Cistern	ca. 1965	1	1.2
Well	post-1940	131	609.3
Feature 46, Stratum 141 (intrusive fill)	post-1886	3	115.1
Unit 103	General 19th century	1	5.5
Unit 104	General 19th century	2	5.1
Garden Area	General 19th century	108	566.3
Communal House (all strata) plus Units 13 & 69	ca. 1965	47	93.9
Unit 66 adjacent to Green Shop, Strata 1 (sod layer) and 153 (buried A horizon)	Modern & general 19th century	65	82.8
Unit 92 adjacent to Pottery/Broom Shop, Stratum 5 (A horizon yard deposit)	General 19th & 20th century	2	0.7
Pottery/Broom Shop, Stratum 2 (rubble fill)	ca. 1940	86	135.7
Pottery/Broom Shop, Stratum 6 (A/B transition)	General 19th & 20th century	2	0.6
Pottery/Broom Shop, Stratum 8 (rodent hole)	Unknown	2	5.0
Pottery/Broom Shop, Stratum 11 (interior fill)	up to 1940s?	8	8.9
Sisters' Shop, Stratum 1 (sod)	modern	5	11.2
Sisters' Shop, Stratum 69 (rubble)	ca. 1950	103	120.4
Sisters' Shop, Stratum 83 (rubble)	ca. 1950s	2	420.8
Sisters' Shop, Stratum 103 (disturbed with rubble)	post-1895	24	356.3
Sisters' Shop, Stratum 112 (clay with glass)	ca. 1920s	1	0.3
Sisters' Shop, Stratum 143 (rubble in trench)	ca. 1950	25	83.8
Sisters' Shop, Stratum 145 (clay loam fill below 69)	pre-1950	1	1
TOTAL		**712**	**3,640.4**

Table B3. Summary of faunal remains from tightly dated* Shaker deposits

Probable Fill Date	Area Designation	Animal Bone CT	Animal Bone WT (g)
pre-1826	Pottery/Broom Shop, Stratum 9 (clay subsoil)	2	1.4
ca. 1826	Pottery/Broom Shop, Stratum 35 (builders trench fill)	6	1.4
ca. 1836	Pottery/Broom Shop, Stratum 12 (builders trench fill)	3	0.3
1840-1849	Feature 46, Strata 109, 139, 140, 142, 144, 170, 176 (pit fill deposits of various composition)	777	15,513.90
	Feature 75 (Yard 3)	7	33.8
	Sisters' Shop, Stratum 99 (remnant of ground surface from before building construction)	2	9
ca. 1850	Sisters' Shop, Stratum 71 (clay loam fill on exterior of building)	6	39.5
	Sisters' Shop, Stratum 72 (silt loam fill on exterior of building)	149	783.2
	Sisters' Shop, Stratum 82 (clay pocket in corner of cellar)	1	2.9
	Sisters' Shop, Stratum 86 (clay loam subsoil)	12	95.4
ca. 1854	Feature 86 (building debris pit)	2	104.5
	Feature 88 (building debris pit)	3	13.8
	Sisters' Shop, Stratum 127 (cellar excavation fill)	5	70.4
1854-1860	Feature 46, Stratum 107 (buried A horizon, Shaker period)	44	126.40
	Green Shop, Stratum 107	2	22.6
	Sisters' Shop, Stratum 107	576	3,906.8
ca. 1880-1900	Green Shop, Stratum 236 (cobble sill foundation with silt loam fill)	64	505.9
TOTAL		**1,661**	**21,231.2**

* For historical archaeology, and this report, "tightly dated" means the deposit can be dated to within 10–20 years.

Table B4. Summary of faunal remains from Shaker deposits with a broad date range

Probable Fill Date	Area Designation	Animal Bone CT	Animal Bone WT (g)
1826-1890	Brothers' Shop and Unit 14, all strata	270	926.1
ca. 1840s-1860s	Sisters' Shop, Stratum 84 (possible spoil dirt from cellar excavation)	20	26.7
ca. 1854-1920s	Sisters' Shop, Stratum 85 (cellar floor)	10	6.4
ca. 1854-1920s	Sisters' Shop, Stratum 89 (clay under dirt floor)	14	48.5
ca. 1840s-1860s	Sisters' Shop, Stratum 102 (disturbed A horizon)	1	1.6
post-1830-ca. 1900	Sisters' Shop, Stratum 106 (interior fill)	39	70.5
ca. 1840s-1854	Sisters' Shop, Stratum 108 (clay loam with rubble fill)	35	21
TOTAL		**389**	**1,100.8**

Animal Bone Remains, Foodways, and Butchery Practices at the North Family Lot

Animal remains can give us insights into past environmental conditions, site formation processes, and social phenomena such as diet, animal husbandry, and craft production. Information collected from the animal remains recovered at the North Family Lot have the potential to help us address broad research themes focused on the social history of Union Village, particularly the differences in status between individual members, as well as between the larger religious and economic divisions, such as families and orders. The information we collected appears to be suitable for addressing such changes over time at one location—the North Family Lot. This section is organized into two parts:

- Foodways and Faunal Remains from Tightly Dated Shaker Deposits: A description of the animal remains organized by time periods
- Diet and Butchery Practices: A discussion of these foodways, especially how they pertain to the Millennial Laws and status differentiation at the North Family Lot

Foodways and Faunal Remains from Tightly Dated Shaker Deposits

Samples from tightly dated contexts (deposits that span a relatively short periods of 10–20 years) were chosen as the broad unit of analysis for this section because they provide information that we can most closely link to specific socio-economic events gleaned from the written record, such as the population instability of the 1854–1860 period at the North Family Lot. For this reason, this section is organized by the time periods shown in the left-hand column of Table B3. The term "foodways" refers to the total set of eating habits and culinary practices of a group of people, and is used here to encompass both the dietary practices of the North Family Lot Shakers and their techniques in preparing and using animal products for both internal use and sale. An overview of the archaeological context and taxonomic composition are provided for each identified time period. Where appropriate, we include summary tables for time periods with larger samples. The remains of domesticated species, particularly those identified as meat cuts, are described in greater detail, as they are the focus of the interpretations offered here. Note that we identified meat cuts through a modern comparative collection and butchery texts from the mid to late 1900s (Sweetman 1943; Ashbrook 1955; Levie 1979), and therefore the terminology used here should not be mistaken for nineteenth-century Shaker terminology. The meat-cut ranking system referred to in this description section is adapted from Decker et al. (1987) and is described further in the discussion section.

Young Believers, pre-1826

Only one deposit associated with the Young Believers in the areas excavated at the North Family Lot could be confidently dated to before 1826: the clay subsoil (Stratum 9) below the Pottery/Broom Shop. Unfortunately, very few items were recovered from this soil layer. Two lower forelimb bones (radius and ulna) were identified, weighing 1.4 g, from a small-to-medium mammal. Neither of these elements exhibited butchery marks. A conclusive statement on what, if any, role the animal representing them played in the Shaker economy or diet before 1826 cannot be made.

Young Believers, ca. 1826

Items from the builders' trench for the original Smith Shop portion of the Pottery/Broom Shop (Stratum 35) were deposited in 1826, when the shop was built. Faunal remains from this deposit consist of two clam-shell fragments (0.5 g), one medium-to-large bird vertebra fragment (0.8 g), and three very small mammal long bone shaft fragments (0.1 g). None exhibited butchery marks. As with the small sample from the deposit dated to pre-1826, it is difficult to make statements about the economic or dietary contribution of these identified fragments.

Second Family, ca. 1836

Like the other two early periods, few remains were recovered from this soil layer. An 1836 addition to the Smith Shop converted it into the Pottery Shop, and material from the builder's trench for this addition (Stratum 12) was the only provenience that could be dated to the time around 1836. Three bone fragments weighing 0.3 g from a small rodent such as a chipmunk were recovered, and are likely accidental inclusions.

Second Family, 1840–1849

The greatest number of animal remains from a tightly dated Shaker context come from deposits dated 1840–1849: a refuse pit with seven distinct fill deposits (strata 109, 139, 140, 142, 144, 170, 176) at the southeast corner of the Sisters' Shop (Feature 46); a refuse pit in Yard 3 (Feature 75); and a remnant of the ground surface that was capped by the Sisters' Shop construction in 1854 (Stratum 99). From these deposits, 786 animal bones weighing 15.5 kg (34.3 lb) were recovered, with the majority coming from Feature 46. The bones represent at least one pest species (rat), as well as a variety of domesticated animals that played a role in the economy of the North Family Lot Shakers (chicken, turkey, cow, sheep, and pig); one additional specimen may represent a fish species. Table B5 provides a taxonomic summary of the assemblage from 1840–1849.

Table B5. Assemblage composition of 1840–1849 deposits

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
	VERTEBRATE					
Vertebrata	unidentified vertebrate	1	<1	0.1	<1	
Osteichthyes	bony fish	1	<1	0.1	<1	
Aves	small-to-medium bird	1	<1	0.1	<1	
Aves	medium bird	1	<1	0.5	<1	
Aves	medium-to-large bird	21	2.7	13.7	<1	
Aves	large bird	8	1.0	7.0	<1	
Meleagris gallopavo	domestic turkey	4	<1	12.1	<1	2
cf. *Gallus gallus domesticus*	cf. domestic chicken	4	<1	5.6	<1	
Gallus gallus domesticus	domestic chicken	1	<1	6.7	<1	1
Mammalia	mammal	22	2.8	1.5	<1	
Mammalia	small mammal	1	<1	0.1	<1	
Mammalia	small-to-medium mammal	15	1.9	5.2	<1	
Mammalia	medium mammal	59	7.5	60.7	<1	

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
Mammalia	medium-to-large mammal	215	27.4	721.9	4.6	
Mammalia	large mammal	27	3.4	238.5	1.5	
cf. *Rattus norvegicus*	cf. Norway rat	1	<1	0.1	<1	
Artiodactyla	even-toed ungulates	2	<1	2.4	<1	
Bos taurus	domestic cow	102	13.0	9,073.8	58.3	4
cf. *Ovis aries*	cf. domestic sheep	2	<1	10.0	<1	
Ovis aries	domestic sheep	7	<1	112.6	<1	3
cf. *Sus scrofa*	cf. domestic pig	16	2.0	147.2	<1	
Sus scrofa	domestic pig	275	35.0	5,136.8	33.0	10
TOTAL		**786**	**100**	**15,556.7**	**100**	**20**

Seventy-six of the 786 specimens in this 1840–1849 category exhibited butchery marks. Included in this figure are 11 unidentified mammal bones (three large mammal and eight medium-to-large mammal), one sheep bone, 29 cow bones and 34 pig bones. The sheep, cow, and pig bones are described below.

Sheep Bones

Butchery Marks and Meat Cuts: The sheep specimen consisted of the rear portion of a skeletally mature pelvis with fine cut marks along the midline (Figure 2). This specimen most likely represents a high-rank leg of mutton, or a similar cut.

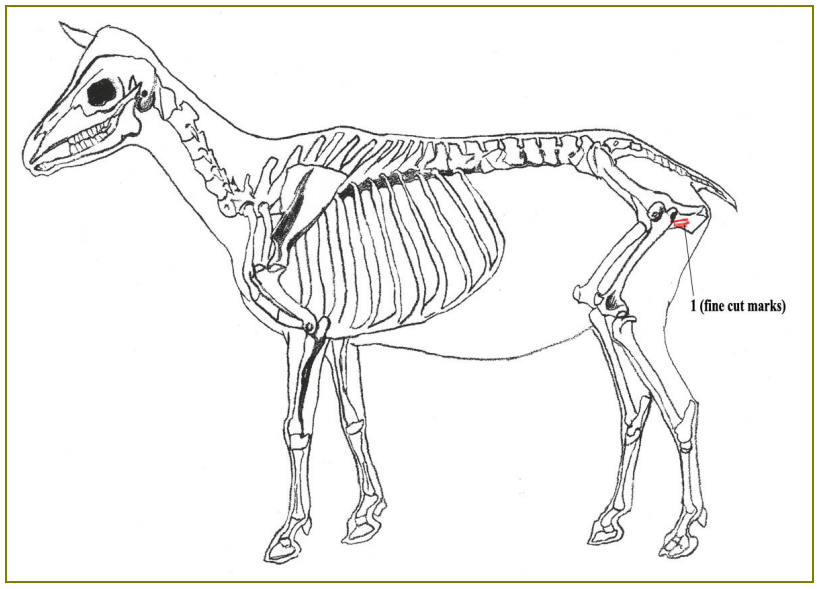

Figure 2. 1840-1849 butchery marks and cuts of mutton (number indicates cuts)

Cow Bones

Butchery Marks and Meat Cuts: Twenty-nine specimens representing meat cuts or exhibiting butchery marks were from cows. Eleven of the specimens can be considered high-rank meat cuts. Two specimens of the upper pelvis represent loin cuts. Five specimens are cut thoracic vertebrae representing rib or sirloin cuts. Two distal thigh bones and two proximal shin bones, all sawn through perpendicular to the long axis of the limb, represent shank knuckle or round cuts. Three of these four specimens came from individuals under 3.5 years old in terms of skeletal maturity. Medium-rank cuts include five rump cuts represented by parts of the lower pelvis and one chuck cut represented by an upper arm bone sawn through perpendicular to the long axis of the limb. The chuck cut came from an individual under 3.5 years old. Comparatively low-rank cuts include one neck cut represented by a sawn-through cervical vertebra and seven foreshank cuts represented by distal portions of the upper arm bone and both bones of the lower arm, all sawn through perpendicular to the limb's long axis. Two of the foreshank cuts came from individuals less than 3.5 years old in terms of skeletal maturity.

Butchery Waste: Items typically categorized as butchery waste include one toe bone with fine cut marks and a portion of the front of the skull sawn through near the eye orbit. Many analysts classify feet and skull parts as butchering waste, but it is also important to recognize that what is considered waste in modern butchery may have been usable parts in the 1800s and early 1900s. The skull fragment in particular may represent extraction of the brain for head cheese, which is a sausage-like dish that is typically made with the head and feet of pigs, although cows and sheep are also used.

Unidentified: One unidentified vertebra possessed hack marks, and one upper arm fragment was sawn; neither could be correlated with specific meat cuts with any confidence.

Depiction of Cuts: Twenty-five of the 29 butchered cow specimens are shown in Figure 3.

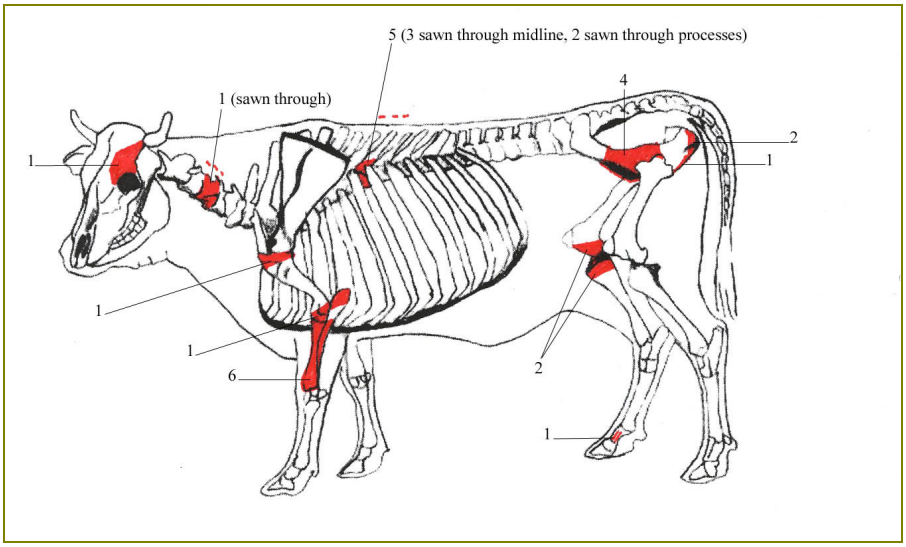

Figure 3. 1840-1849 butchery marks and cuts of beef (number indicates cuts)

Pig Bones

Butchery Marks and Meat Cuts: Thirty-four specimens with butchery marks were from pigs. Twelve of the specimens are high-rank meat cuts. One specimen of the upper pelvis represents a loin roast (ham end). Four specimens are sawn thoracic vertebrae or ribs representing loin roasts or loin chops. One ham is represented by a sawn-through portion of the lower pelvis. Six other ham cuts are represented by sawn and cut thigh bones. Four of the seven hams come from individuals less than 3.5 years old in terms of skeletal maturity. One of these immature individuals was considerably younger, possibly under one year in age. Medium-rank cuts include one "butt" cut represented by a cut portion of the shoulder blade and six picnic cuts represented by cut and sawn upper arm bones. Four of the six picnic cuts came from individuals under 3.5 years old. Comparatively low-rank cuts include one neck cut represented by a sawn through first cervical vertebra (atlas) and five hindshank cuts represented by portions of the shin bone, all sawn through perpendicular to the limb's long axis. One of the hindshank cuts came from an individual under 2 years of age; two others came from individuals between 2 and 3.5 years old. A fourth hindshank came from another individual younger than 3.5 years at the time of death.

Butchery Waste: Items typically categorized as butchery waste include two ankle bones, one with hack marks, the other sawn through; and one hand/foot bone and one toe bone, both possessing fine cut marks. Both ankle bones come from skeletally immature individuals. Also included in this category are two sawn jaw bones, one sawn cheekbone, and a sawn portion of the front of the skull. As mentioned earlier, feet and skull parts typically classified as butchering waste may actually represent edible meat in dishes such as headcheese. One unidentified long bone shaft had been sawn through but could not be correlated with a specific meat cut with any confidence.

Depiction of Cuts: Thirty-three of the 34 butchered pig specimens are depicted in Figure 4.

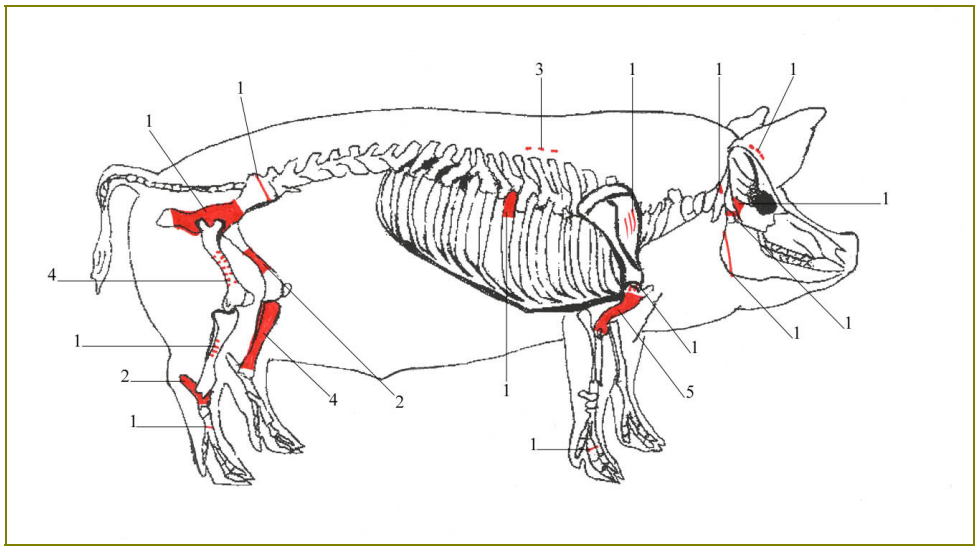

Figure 4. 1840–1849 butchery marks and cuts of pork (number indicates cuts)

Second Family, ca. 1850

Four separate strata at the Sisters' Shop location were assigned a date of ca. 1850 (Strata 71, 72, 82, 86). From these deposits, 168 animal bones were recovered with the majority coming from Stratum 72 (n=149). The bones represent pest species (such as rats and groundhogs) and domesticated animals that played a role in the economy of the North Family Lot Shakers (chicken, cow, sheep, and pig). Table B6 provides a taxonomic summary of the assemblage from ca. 1850.

Table B6. Assemblage composition of ca. 1850 deposits

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
	VERTEBRATES					
Aves	medium-to-large bird	5	3.0	7.6	<1	
Galliforme	turkeys, pheasants, quail & other fowl	2	1.2	4.4	<1	
cf. *Gallus gallus domesticus*	cf. domestic chicken	1	<1	1.4	<1	
Mammalia	mammal	5	3.0	0.5	<1	
Mammalia	small mammal	1	<1	0.4	<1	
Mammalia	small-to-medium mammal	5	3.0	1.2	<1	
Mammalia	medium mammal	36	21.4	35.4	3.8	
Mammalia	medium-to-large mammal	26	15.5	56.9	6.2	
Mammalia	large mammal	2	1.2	16.1	1.7	
Sylvilagus floridanus	eastern cottontail rabbit	1	<1	1	<1	1
cf. *Marmota monax*	cf. woodchuck	1	<1	0.4	<1	
Marmota monax	woodchuck	1	<1	2.3	<1	1
cf. *Rattus norvegicus*	cf. Norway rat	4	2.4	1.3	<1	
Rattus norvegicus	Norway rat	55	32.7	4.8	<1	3
cf. *Bos taurus*	cf. domestic cow	1	<1	58.4	6.3	
Bos taurus	domestic cow	1	<1	274.2	29.8	1
cf. *Ovis aries*	cf. domestic sheep	9	5.4	71.4	7.8	
Ovis aries	domestic sheep	7	4.2	197	21.4	3
cf. *Sus scrofa*	cf. domestic pig	1	<1	5.1	<1	
Sus scrofa	domestic pig	4	2.4	181.2	19.7	2
TOTAL		**168**	**100**	**921**	**100**	**11**

Only two of these 168 specimens could be classified as butchered: one cow bone and one pig bone.

Cow Bone

Butcher Marks and Meat Cuts: The cow bone was a sawn through portion of an adult cow pelvis and most likely represents a rump roast or similar cut (Figure 5).

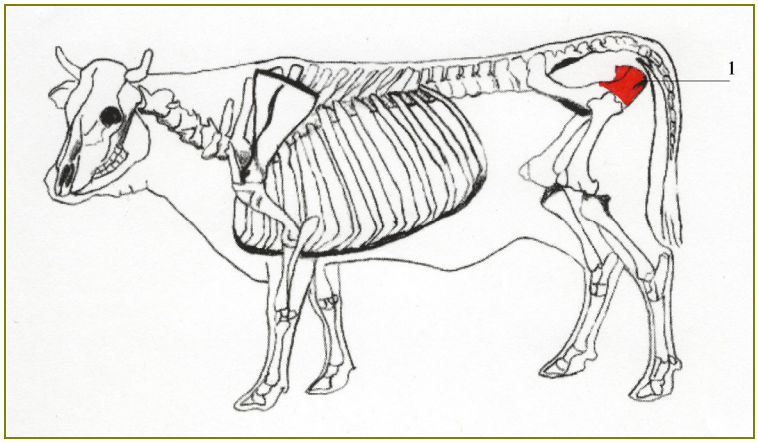

Figure 5. 1850 cuts of beef (number indicates cuts)

Pig Bone

Butchery Marks and Meat Cuts: The pig specimen consisted of the lower forelimb bones of an adult pig sawn through on the end closest to the foot (Figure 6). This item most likely represents a foreshank cut.

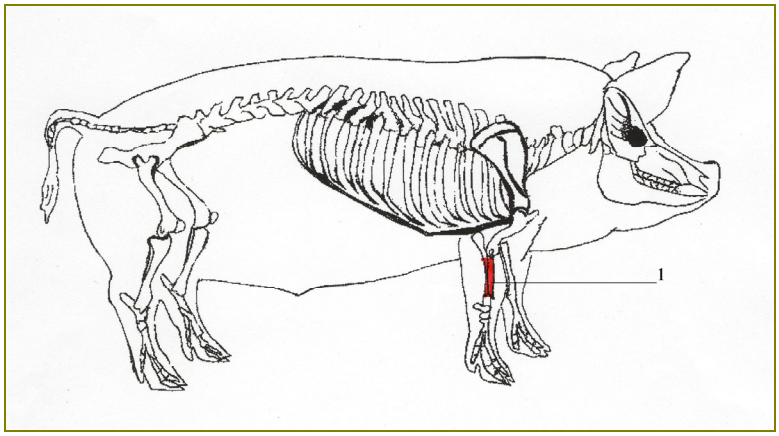

Figure 6. 1850 cuts of pork (number indicates cuts)

Second Family, ca. 1854

Ten animal bones were recovered from three separate contexts dating to ca. 1854: Features 86 and 88 (rubble-filled pits) and Stratum 127 (clay loam cellar excavation fill) at the Sisters' Shop. Table B7 provides a taxonomic summary of these items.

Table B7. Assemblage composition of ca. 1854 deposits

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
VERTEBRATES						
Mammalia	medium mammal	1	10	1	<1	
Mammalia	medium-to-large mammal	7	70	126.1	66.8	
Bos taurus	domestic cow	1	10	10.4	5.5	1
cf. *Sus scrofa*	cf. domestic pig	1	10	51.2	27.1	1
TOTAL		**10**	**100**	**188.7**	**100**	**2**

Pig Bone

Butchery Marks and Meat Cuts: Only one item definitively represents a cut of meat, specifically a ham cut from a pig under three and a half years old (Figure 7). The bone representing a cow is also from an immature individual (younger than two and half years old).

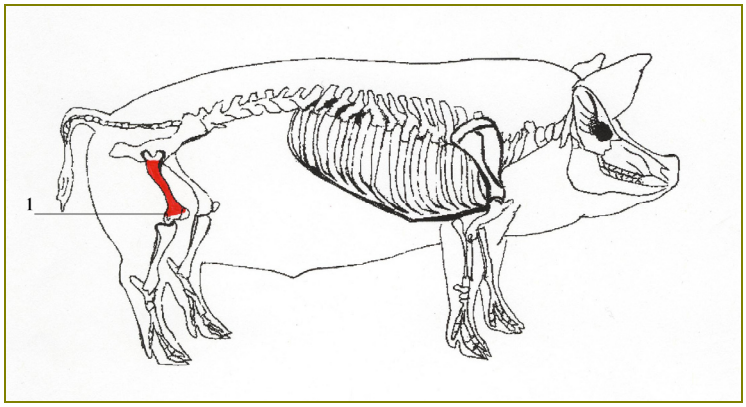

Figure 7. 1854 cuts of pork (number indicates cuts)

Second Family, 1854-1860

Artifacts dating to the period from 1854 to 1860 were identified in Stratum 107, a buried A horizon found across a portion of the North Family Lot between the Green Shop and the Sisters' Shop. A total of 622 animal bones were recovered from this soil layer at the three locales, with the majority coming from units excavated at the Sisters' Shop (n=576). Table B8 provides a taxonomic summary of these items. Fifteen specimens representing butchered remains were identified in this sample, 4 from cows and 11 from pigs.

Table B8. Assemblage composition of 1854-1860 deposits

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
	INVERTEBRATES					
Bivalvia	bivalves and clams (hinged-shell molluscs)	2	<1	4.2	<1	
	VERTEBRATES					
Aves	medium bird	1	<1	0.6	<1	
Aves	medium-to-large bird	28	4.5	23.5	<1	
Mammalia	mammal	24	3.9	7.4	<1	
Mammalia	small mammal	1	<1	0.2	<1	
Mammalia	small-to-medium mammal	11	1.8	7.3	<1	
Mammalia	medium mammal	11	1.8	3.0	<1	
Mammalia	medium-to-large mammal	345	55.5	622.9	15.4	
Mammalia	large mammal	25	4.0	214.6	5.3	
Sylvilagus floridanus	eastern cottontail rabbit	1	<1	3.9	<1	1
cf. *Bos taurus*	cf. domestic cow	8	1.3	261.8	6.5	
Bos taurus	domestic cow	35	5.6	1,704	42.0	3
cf. *Ovis aries*	cf. domestic sheep	1	<1	7.3	<1	
Ovis aries	domestic sheep	5	<1	43.6	1.1	2
cf. *Sus scrofa*	cf. domestic pig	51	8.2	167.2	4.1	
Sus scrofa	domestic pig	73	11.7	984.3	24.3	4
TOTAL		**622**	**100**	**4,055.8**	**100**	**10**

Cow Bones

Butchery Marks and Meat Cuts:
Four butchered specimens from this time period were from cows, depicted in Figure 8. Two cervical and one lumbar vertebra had been sawn through the midline. The cervical vertebrae represent moderately low–ranked neck cuts, while the lumbar vertebra represents a high ranked loin cut. The fourth beef cut is the mid section of a rib sawn through twice perpendicular to the long axis. This cut was likely a low-ranked plate, flank, or brisket cut. These four cuts appear to have come from one or more individuals between 3.5 and 5 years old and nearing skeletal maturity.

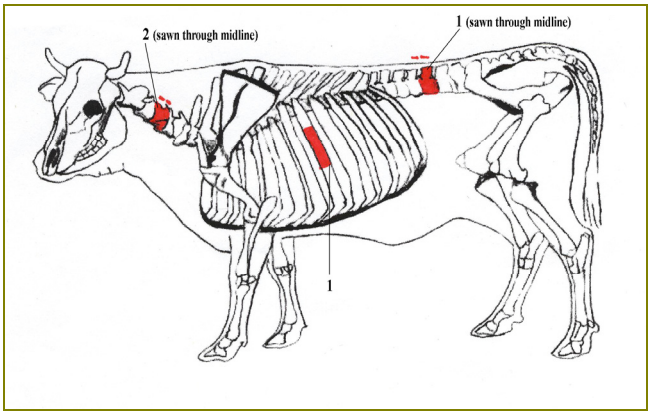

Figure 8. 1854-1860 butchery marks and cuts of beef (number indicates cuts)

Pig Bones

Butchery Marks and Meat Cuts: Eleven butchered specimens were from pigs. Eight of the butchered pig specimens represent high rank meat cuts. This number includes one femur shaft fragment, representing a ham cut, with fine defleshing-type cut marks perpendicular to the long axis of the shaft. Six other high rank specimens consist of thoracic vertebral epiphysis sawn through the midline. These items represent loin cuts. One thoracic vertebral body was sawn through twice perpendicular to the long axis of the animal and represents a loin chop.

Animals represented by the high rank meat cuts were predominately under 12 months of age, although the individual represented by the ham cut may have been a juvenile of one to two years old in age, and therefore was recorded as being 12 to 24 months old. One medium rank "butt" cut was identified based on the presence of a portion of the shoulder blade (scapula). This specimen had hack marks along the joint where the shoulder blade connects with the upper front limb, reminiscent of disarticulation. The individual represented by this specimen was greater than one year of age. One cervical vertebra presenting a low rank neck cut was identified. This specimen belonged to an individual under 6 months of age at the time of death.

Butchery Waste: One metacarpal or foot bone, with fine cut marks, was also identified. While typically categorized as butchery waste, this foot bone may have represented edible meat and been included in a dish made with pig's feet. The individual represented by this element was over 2 years in age.

Depiction of Cuts: The 11 butchered pig specimens are depicted in Figure 9.

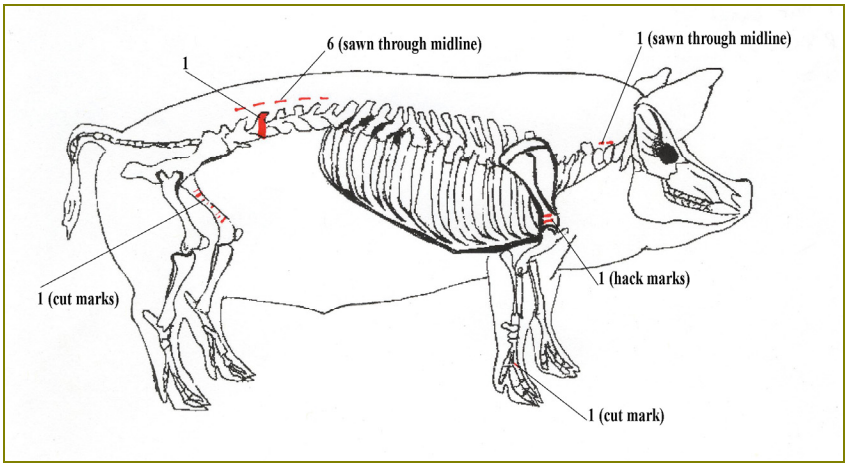

Figure 9. 1854-1860 butchery marks and cuts of pork (number indicates cuts)

Second Family, 1880–1890

Sixty-four animal bones were recovered during the excavation of the Green Shop foundation, Stratum 236. The deposits in Stratum 236 date from 1880 to 1890, which approximates the period when the Green Shop was likely demolished. Table B9 provides a taxonomic summary of these items. No butchered specimens associated with an identified species were present in this sample.

Table B9. Assemblage composition of 1880–1890 deposits

Scientific Name	Common Name	CT	%CT	WT (g)	%WT	MNI
	INVERTEBRATES					
Bivalvia	bivalves and clams (hinged-shell molluscs)	1	1.6	0.6	<1	
	VERTEBRATES					
Aves	medium bird	1	1.6	1.1	<1	
Aves	medium-to-large bird	10	15.6	5.4	1.1	
Aves	large bird	1	1.6	5.1	1.0	
Galliforme	turkeys, pheasants, quail & other fowl	1	1.6	4.7	<1	
cf. *Meleagris gallopavo*	cf. domestic turkey	1	1.6	5.5	1.1	
cf. *Gallus gallus domesticus*	cf. domestic chicken	1	1.6	0.7	<1	
Mammalia	small mammal	1	1.6	0.1	<1	
Mammalia	small-to-medium mammal	1	1.6	0.9	<1	
Mammalia	medium mammal	15	23.4	26.8	5.3	
Mammalia	medium-to-large mammal	14	21.9	100.7	19.9	
Sylvilagus floridanus	eastern cottontail rabbit	2	3.1	1.5	<1	1
Small Sciuridae	small squirrel	2	3.1	0.6	<1	
Sciurus sp.	tree squirrel species	2	3.1	0.4	<1	
Ovis aries	domestic sheep	7	10.9	140.0	27.7	2
cf. *Sus scrofa*	cf. domestic pig	1	1.6	26.7	5.3	
Sus scrofa	domestic pig	3	4.7	185.1	36.6	1
TOTAL		**64**	**100**	**505.9**	**100**	**4**

Diet and Butchery Practices

This discussion of the North Family Lot foodways is grouped into two broad categories: diet and butchery practices. Any discussion of Shaker diet must necessarily address the question of food items prohibited by the Millennial Laws; specifically, the eating of pork. And we can examine differences in individual and group status in the North Family Lot Shakers by analyzing their animal husbandry and butchery practices; in particular, their patterns of carcass division, the types of tools they used, and how they used domestic livestock species, throughout their life cycles.

Diet

Pork and Adherence to the Millennial Laws

One of the first questions we wanted to answer using the faunal information is whether the Shaker residents at the North Family Lot followed the prohibition on pork dictated by the Millennial Laws of the 1840s. Some scholars maintain that the Western Shakers did not follow the Millennial Laws as closely as Eastern Shakers (Nicoletta and Morgan 1995:28), and Starbuck (2004) contends that even the more rigid Shakers of the East behaved improperly regarding dietary restrictions. The documentary record suggests the Shakers adhered to the prohibition immediately after it was enacted, but relaxed their standards by 1870. For example, the 1850 agricultural census recorded no living swine under the trustees of the North Family Lot, Center Family, and North House Family (Stephen Easton, Peter Boyd, and Cephas Holloway, respectively). But 384 swine were recorded in the 1870 agricultural census under Boyd and Parkhurst, an entry that likely refers to livestock counts for the entire village (USCB 1850, 1870). We can therefore hypothesize that no pigs should be found in the North Family Lot archaeological record in the period 1840 through at least 1850 and that pigs should gradually reappear in the archaeological record after ca. 1850.

Information collected from the North Family Lot at Union Village supports the idea that deviations from the proscribed diet occurred continuously over the period 1840–1890. Bones from domesticated pigs were present in *all* North Family Lot deposits dated between ca. 1840 and ca. 1890. The remains include individual and communal meat cuts as well as elements typically classified as butchery waste. The wide variety of skeletal elements indicates that the pig remains cannot be attributed to activities associated with the export of pork alone. The number of pig bones and pork cuts, especially as documented in the 1840–1849 deposits, also suggest that tenants and outside laborers were not the only people eating pork at the North Family Lot. Although we cannot tell how much pork was eaten and how often it was eaten because of the lack of sealed deposits identified at the North Family Lot, it is clear that some pork was eaten along with other available meats such as beef, mutton, chicken, turkey, and possibly rabbit, during the era when pork was prohibited by the Millennial Laws.

The Role of Wild Animal Species in the Diet

Only a few rabbit bones were present in the assemblage for this project, and none of the remains were from deer, which raises an interesting question about the Shaker diet: What

does it mean that the frequency of wild animals in the assemblage is very low? Table B10 shows the five dated Shaker deposits that contain wild animal specimens.

Table B10. Counts of wild animal bones by dated Shaker deposit and animal group

	YOUNG BELIEVERS		SECOND FAMILY						
	Pre-1826	ca. 1826	ca. 1836	1840-1849	ca. 1850	ca. 1854	1854-1860	1880-1890	Total
Freshwater clams	-	2	-	-	-	-	2	1	**5**
Fish	-	-	-	1	-	-	-	-	**1**
Squirrels	-	-	-	-	-	-	-	4	**4**
Woodchuck	-	-	-	-	2	-	-	-	**2**
Rabbit	-	-	-	-	1	-	1	2	**4**
Total	**-**	**2**	**-**	**1**	**3**	**-**	**3**	**7**	**16**

Wild animals have played a role of varying importance in Euro-American diet since the time of the earliest European settlements. In Colonial America, wild animals played a critical role, often serving as the main source of protein during lean periods, and at other times regularly supplementing meat from domesticated animals. Smith Booth (1971:69) states that deer, squirrels, and rabbit were the "most common wild meat" in the Colonial diet. Fish and waterfowl provided an "abundant supply of foodstuffs," and waterfowl were an "indispensable source" of household items such as down and quills (Smith Booth 1971:93). As forests were cleared for agriculture and the large game herds declined, there was a corresponding increase in the popularity of recipes for dishes that featured small mammals such as woodchuck, fox, hare, opossum, and raccoon (Smith Booth 1971:70).

Wild animals continued to supplement meat intake during the Revolutionary and post-Revolutionary eras, particularly in frontier and rural settings. At Schoenbrunn, Ohio (a Moravian mission where both Euro-Americans and Native Americans resided from 1772 through 1777), fish, turtles, ducks, raccoon, deer, and black bear were identified in the archaeological collection (Lee 1998a; Goehring and Snyder 2003). Rural Ohio sites from the 1800s, such as the Ilgenfritz/Franks Cabin site (33TU534) in Tuscarawas County, the Jegs site (33DL951) in Delaware County, and the Thomas Worthington estate "Adena" in Ross County, also have yielded small numbers of wild animals such as turtles, ducks, rabbit, and deer (Lee 1996, 1997, 1998b; Keener 2003). Conversely, few if any wild animal remains have been identified in collections from Ohio's urban archaeological sites.

Given this pattern of wild animal use, we might expect to find wild animal remains in the Shaker collection because of its rural setting. However, we identified very few wild animal bones. For an explanation, we turned to archival sources. The diaries examined as part of this project have no mention of hunting or trapping, but one clue is present in the 1845 edition of the Millennial Laws: The first rule under Section XIV, Orders concerning hunting and wandering away, reads "Boys under fifteen years of age, may not go hunting with guns, and the longer they let guns alone the better" (Andrews 1963:274). This passage appears to be more concerned with the use of guns rather than hunting, but a prohibition on guns would consequently make it more difficult to hunt larger game animals such as deer.

We can also speculate that the relatively few examples of wild animals in the dated Shaker deposits lay in the self-sufficient nature of the Shaker society; perhaps wild animals were not needed to supplement the meat from livestock in the diet. Unfortunately, the information available does not definitively explain the low frequency of wild animals in the collection from the North Family Lot.

Status Differentiation

The third dietary topic addressed here is the issue of status differentiation between individual members and between larger religious and economic divisions such as families and orders. The traditional method of examining differences in status within historical faunal assemblages is to look at the relative proportions of differently ranked meat cuts in the assemblage. Meat cut ranking is based on the premise that certain portions of an animal are more highly valued by consumers because these portions have the largest amount of meat, best flavor, best tenderness, or are the most nutritional. Market prices should correspond to meat cut ranking.

Decker et al. (1987) developed a meat cut ranking scheme for studying status differentiation in nineteenth century Wilmington, Delaware; this scheme has become commonly cited. It combined two butchery styles (the New York and the Eastern style) recorded for the mid 1900s, assigned rankings to specific meat cuts based on presumed value, and listed the appropriate skeletal elements represented by the various meat cuts. Table B11 summarizes this ranking scheme and is adapted here from Decker et al. (1987:246, Table 1). A useful feature of this scheme is that all identifiable skeletal elements (not just those with butchery marks) can be ranked if we assume that the bones of the major domestic livestock species represent food remains when they are identified in refuse deposits in the archaeological record. Because we are including all identifiable elements, not just elements exhibiting butchery marks, the number of items being examined increases.

Table B11. Generic meat cut ranking
(adapted from Decker et al. 1987:246, Table 1)

Rank	Meat Cut	Corresponding skeletal element(s)
High	Sirloin, T-bone, porterhouse	Lumbar vertebrae
High	Sirloin, rib roast	Ilium, sacrum, 7-13 thoracic vertebrae, 6-12 ribs – proximal portion
High	Top-round, bottom round, sirloin tip, ham, leg of lamb	Lower thigh bone
Medium	Rump pot roast	Upper thigh bone, ischium, tail vertebrae
Medium	Chuck blade, chuck rib, shoulder roast	1-6 thoracic vertebrae, shoulder blade, first five ribs
Medium	Arm, picnic ham	Lower portion of the upper forelimb, 6-12 ribs (cut midsection)
Low	Flank, short plate, brisket	3-12 ribs – distal portion
Low	Neck	Neck vertebrae, atlas, axis
Low	Hindshank, foreshank	Shinbone, lower forelimb bones
Waste / Very Low	Butchering waste	Feet, skull, teeth

We applied the ranking scheme developed by Decker et al. (1987) to all identified skeletal elements of the three major domestic livestock species from tightly dated Shaker deposits at the North Family Lot. The relative proportion of high, medium, low, waste, and unknown

ranked elements for each species is presented as a percentage of the total species sample per date range in Table B12 through Table B14. Table B15 shows the proportion of differently ranked meat cuts for all three species combined over time.

Table B12. Ranking of all sheep elements by time period

	RANK				
	High	Medium	Low	Waste	Unknown
1840-1849	11	78	11	0	0
ca. 1850	25	44	31	0	0
ca. 1854	0	0	0	0	0
1854-1860	17	33	33	17	0
1880-1890	29	14	14	43	0

Table B13. Ranking of all cow elements by time period

	RANK				
	High	Medium	Low	Waste	Unknown
1840-1849	7	29	18	44	2
ca. 1850	0	50	0	50	0
ca. 1854	0	0	100	0	0
1854-1860	7	21	9	58	5
1880-1890	0	0	0	0	0

Table B14. Ranking of all pig elements by time period

	RANK				
	High	Medium	Low	Waste	Unknown
1840-1849	6	14	16	63	1
ca. 1850	20	20	20	40	0
ca. 1854	100	0	0	0	0
1854-1860	7	20	16	57	0
1880-1890	50	0	25	25	0

Table B15. Ranking of all livestock elements by time period

	RANK				
	High	Medium	Low	Waste	Unknown
1840-1849	7	19	16	57	1
ca. 1850	22	39	26	13	0
ca. 1854	50	0	50	0	0
1854-1860	7.5	21	15	55.5	1
1880-1890	36	9	18	36	0

So just what can this information tell us about the social history of the North Family Lot? Two biases in the tables are readily apparent. First, the tables do not contain information for the period before 1836, when the Young Believers and Gathering Order families were in residence. This omission is related to the very small sample of materials from dated deposits

of those years, plus the material that was found was not identifiable to species. The lack of early information precludes a discussion of status differentiation between different orders of Shakers at the North Family Lot. Second, the figures for the ca. 1850 and ca. 1854 categories appear anomalous, with numbers like 100 and 0 frequently occurring. These extreme numbers reflect small sample sizes of identifiable specimens for those two time periods, particularly the ca. 1854 group that had only two items identified to the species level.

Despite these two biases, the data do indicate a few general trends in the relative proportion of differently valued meat cuts over time during the years of the Second Family. It appears that the proportion of high-ranked sheep and cow cuts increase over time, as do the "waste" materials from these two species. The information shows an increase in the proportion of high, medium, and low pig cuts and a decrease in waste remains from pigs. When we consider the combined information, it seems that high ranked cuts and waste material increased over time, with a corresponding decrease in the proportion of medium and low rank cuts. There is an obvious anomaly in the pattern for the period 1854–1860, where high rank cuts drop in relative frequency, and waste increases in relative frequency. This anomaly in the overall pattern may be related to the increasing instability in population at the North Family Lot during this period as a result of death and apostasy. Additionally, the period of 1854–1860 is the time when North Family Lot industries begin to decline. Also noticeable is the relatively high proportion of high rank cuts and waste during the final period of 1880–1890 when the population was smaller and dominated by elderly individuals.

The relatively high frequency of high rank cuts from all species may indicate that the elderly population was buying a larger portion of their meat or that high rank cuts were associated with the increase in the tenant population. More sheep waste cuts may appear in this period because the wool industry was abandoned by 1880 and, thus, sheep were more likely to be butchered for food. Given the inherent problems with the sample sizes and context and the lack of comparative information from other family lots, we cannot tell if the information from dated deposits at the North Family Lot reflects overall trends in the social history of the Second Family or differences in social status within the Family or between Orders.

Butchery Practices and Animal Husbandry

Carcass Division and Tools of the Trade

One area of historical faunal analysis commonly overlooked is that of butchery practices and animal husbandry. In his 1977 article on the topic, Lyman demonstrated that many insights into a "cultural system" can be gained simply by conducting in-depth analyses of butchery marks and patterns of carcass division (Lyman 1977:67). Through his analysis of a ca. 1903 military refuse deposit at Fort Walla Walla in Washington, Lyman (1977:73) was able to show that "butchery methods at Fort Walla Walla varied. . . from both those recorded for the military in 1924 and present day practices" and that the carcasses of the three major livestock species "were obtained in butchered form." More recent studies, such as one by Landon (1996), have acted upon Lyman's call for more detailed analysis in the area of butchery practices because it has now been demonstrated that it is a useful tool for examining past human behavior.

The potential to gain similar understandings of the North Family Lot inspired the following analysis of butchery practices and animal husbandry, based on the North Family Lot animal remains. The only other Shaker faunal sample appropriate for comparing to that of the North Family Lot is the sample from Hancock Village. A comparison of the two faunal samples is given on page B-27.

The presence of butchery waste at the North Family Lot (including portions of the feet, head, and teeth) together with specific meat cuts (both for individual plate-sized portions and for communal portions, such as stews) indicates that animals were butchered on site instead of being brought there in a butchered form. Also, the animal bone assemblage from the excavations at the North Family Lot fit the basic pattern of carcass division described by Ashbrook's (1955) mid-twentieth-century rural and home butchery text. Information from the North Family Lot indicates that the heads of pigs and cows were removed, and then the carcasses were split into right and left halves along the backbone; the majority of the backbones were cut through, producing a left half and a right half. The method of primary and secondary divisions for sheep carcasses are less obvious—few sheep backbones were present in the sample, so we cannot tell if sheep were halved or divided according to other anatomical regions.

Tool marks found on the North Family Lot bones from tightly dated Shaker contexts indicate that the resident butchers used standard butchery tools, such as knives, cleavers/axes, and fine-toothed handsaws. Cuts made by handsaws were the most common tool mark identified across all deposits. Figure 10 and Figure 11 illustrate a cut made by a handsaw. Saws appear to have been the tool of choice for splitting pig and cow carcasses into left and right halves along the backbone and for creating the major carcass divisions, as well as smaller cuts of meat.

Figure 10. Cow left lower forelimb sawn through (overview)

Figure 11. Cow left lower forelimb sawn through (close up view of sawn surface)

This pattern corresponds with Deetz's (1996 [1977]) observation that the tools used to divide carcasses changed over time as communal dishes gave way to individual meals. Before 1800, carcasses were divided into large, communal portions used in "stews, pottages, and other exotic mixtures," with axes or cleavers being the tool of choice, whereas after 1800, the

tripartite meal (meat, potato, and vegetable) for individual consumption became more popular, and handsaws were used to divide a carcass (Deetz 1996 [1977]:170–171).

Deetz's (1996 [1977]) observations do not imply that axes and cleavers were never used after 1800, simply that their popularity dramatically decreased. For instance, cleavers and/or axes may also have been used to split carcasses at the North Family Lot at times; one cow vertebra and one pig vertebra from the 1840–1849 sample were hacked through the midline. Cleavers and/or axes also appear to have been used to disarticulate the head and feet, and possibly to split the spine. Evidence for using a cleaver in such a way comes from a small sample of three specimens. The 1840–1849 deposits contained the lower arm of a cow and the anklebone of a pig that was hacked through. We observed one hack mark on the lower part of a sheep shin bone recovered from excavations in the Brothers' Shop; the deposits that this sheep bone was recovered from have a broad date range of 1826 to ca. 1890. The hack marks on this small sample of fragments suggests that the feet of cows and sheep may have been disarticulated above the ankle/wrist joints, while the feet of pigs were disarticulated through the joint. One pig neck vertebra from the 1840–1849 sample exhibited hack marks indicating decapitation (Figure 12).

Figure 12. Pig neck vertebra with hack mark

Fine cut marks made by knives were observed on cow, sheep, and pig bones in the 1840–1849 sample. Knives appear to have been used for skinning, removing the meat from the bone, and possibly disarticulating. The use of knives for skinning is suggested by a small number of fine cut marks on cow and pig feet and toe bones. The observation of a few fine cut marks near major articulation points, such as where the thigh bone and the pelvis connect and where the upper arm and shoulder blade connect, suggest that knives may have been used to cut connective tissue and disarticulate limbs from the carcass (see Figure 13). However, knife cut marks were most frequently observed along the shafts of pig thigh and upper arm bones. These cut marks were perpendicular to the long axis of the bone and occurred in a series along all sides of the bone as if meat had been sliced off the bone (see Figure 14).

Figure 13. Sheep pubic bone with fine cut marks parallel to midline joint

Figure 14. Immature pig thigh bone with fine cut marks perpendicular to the long axis of the bone

The only comparative information for Shaker butchery practices comes from a study conducted of the Hancock Village slaughterhouse locale in Massachusetts by Keatley (1986). Keatley found that the Shakers at Hancock Village divided the cow carcass in a manner similar both to that described by Ashbrook (1955) and that observed at the North Family Lot. At Hancock Village, the cow's head was removed from the carcass before further divisions. The mandible, or lower jaw, was removed and discarded, while the tongue was saved for cooking. The jaw and tongue were excised with a knife. The feet of the cow were removed primarily by a handsaw, and the carcass was divided into left and right halves. Skeletal elements indicating further reduction of the beef halves were not present in the Hancock slaughterhouse assemblage. Information on the manner in which pigs and sheep were slaughtered and the carcasses subsequently divided was also not available from the Hancock sample.

Age Profiles

Domestic livestock age profiles can provide information on herd management techniques and the different ways that the animals were used. Animals that are kept for non-meat products such as milk, eggs, and wool, and for breeding purposes, will generally be reflected in age profiles that indicate an older average age at death. Conversely, animals that are raised primarily as a meat source will be reflected by age profiles that show a younger, typically juvenile, average age at death because animals that are raised for meat are slaughtered just

before they mature, when their growth slows relative to their food intake (Landon 1996:96). Many of the domestic livestock species reach this cut-off point between 1.5 and 2.5 years of age (Reitz and Scarry 1985:80).

Age profiles of cows and sheep from the tightly dated Shaker deposits at the North Family Lot indicate that cows and sheep were kept primarily for resources other than meat.

Cow Profiles

At least nine individual cows are represented within these deposits, and over one half of these animals (n=5; 55%) were 2.5 or more years of age at the time of their death. Thirty-four cuts of beef were also represented in these deposits; all meat cuts appear to have been from individuals more than 2.5 years of age. Age information for all cows and for all cuts of beef from the tightly dated Shaker deposits are summarized in Table B16 and Table B17 ("NFL" stands for North Family Lot.)

Table B16. Age at death for all cows identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)									
DATE	**Fetal/Newborn**	**<7**	**7-10**	**10-18**	**18-30**	**30-36**	**36-42**	**42-48**	**>48**	**TOTAL**
pre-1826	-	-	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-	-	-
1840-1849	-	-	-	-	-	2	-	2	-	**4**
ca. 1850	-	-	-	-	-	-	-	1	-	**1**
ca. 1854	-	-	-	1	-	-	-	-	-	**1**
1854-1860	1	-	-	-	1	-	1	-	-	**3**
ca. 1880-1900	-	-	-	-	-	-	-	-	-	-
TOTAL	**1**	**-**	**-**	**1**	**1**	**2**	**1**	**3**	**-**	**9**

Table B17. Age at death for beef cuts identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)									
DATE	**Fetal/ Newborn**	**<7**	**7-10**	**10-18**	**18-30**	**30-36**	**36-42**	**42-48**	**>48**	**TOTAL**
pre-1826	-	-	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-	-	-
1840-1849	-	-	-	-	-	5	1	-	23	**29**
ca. 1850	-	-	-	-	-	-	-	1	-	**1**
ca. 1854	-	-	-	-	-	-	-	-	-	-
1854-1860	-	-	-	-	-	-	4	-	-	**4**
ca. 1880-1900	-	-	-	-	-	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**-**	**-**	**5**	**5**	**1**	**23**	**34**

Sheep Profiles

At least ten individual sheep are represented within tightly dated deposits at the North Family Lot. Eighty percent (n=8) of these animals were 2 or more years of age at the time of their death. The one meat cut from a sheep in these deposits belonged to an individual in the 3–3.5

year old age class, mirroring the pattern. Age information for all sheep and for all cuts of mutton from the tightly dated Shaker deposits are summarized in Table B18 and Table B19.

Table B18. Age at death for all sheep identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)									
DATE	**Fetal/Newborn**	**<6**	**6-10**	**10-18**	**18-24**	**24-28**	**28-36**	**36-42**	**>42**	**TOTAL**
pre-1826	-	-	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-	-	-
1840-1849	-	-	-	-	-	-	1	2	-	**3**
ca. 1850	-	1	-	-	-	-	1	-	1	**3**
ca. 1854	-	-	-	-	-	-	-	-	-	-
1854-1860	-	1	-	-	-	-	1	-	-	**2**
ca. 1880-1900	-	-	-	-	-	1	1	-	-	**2**
TOTAL	**-**	**2**	**-**	**-**	**-**	**1**	**4**	**2**	**1**	**10**

Table B19. Age at death for mutton cuts identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)									
DATE	**Fetal/Newborn**	**<6**	**6-10**	**10-18**	**18-24**	**24-28**	**28-36**	**36-42**	**>42**	**TOTAL**
pre-1826	-	-	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-	-	-
1840-1849	-	-	-	-	-	-	-	1	-	1
ca. 1850	-	-	-	-	-	-	-	-	-	-
ca. 1854	-	-	-	-	-	-	-	-	-	-
1854-1860	-	-	-	-	-	-	-	-	-	-
ca. 1880-1900	-	-	-	-	-	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**1**

Pig Profiles

Unlike cows and sheep, age-at-death information for pigs from the tightly dated Shaker deposits at the North Family Lot indicate that pigs were kept for their meat and as breeding stock. Both young individuals and older individuals are present, suggesting that some animals were slaughtered for meat at a young age, while others were slaughtered after maximizing their breeding potential. At least 18 individual pigs are represented within these deposits. Seventy-two percent of these animals (n=13) were under 2 years of age at the time of their death. Forty-six pork cuts were also represented in these deposits. Less than one-third of the meat cuts (n=11; 24%) could be attributed to individuals younger than 2.5 years of age. The remaining 76 percent (n=35) were attributed to older animals. This discrepancy between individual and meat cut ages may be caused by a bias for some meat cuts to be categorized as "adult"—meat cuts in the dated deposits tend to come from portions of bones that fuse early in life or have no clear indicators of age, and they therefore show up as "adult" in the age profiles. Age information for all pigs and for all cuts of pork from the tightly dated Shaker deposits are summarized in Table B20 and Table B21.

Table B20. Age at death for all pigs identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)							
DATE	Fetal/ Newborn	<12	12-24	24-30	30-36	36-42	>42	TOTAL
pre-1826	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-
1840-1849	-	-	9	-	-	-	1	10
ca. 1850	-	1	-	-	-	1	-	2
ca. 1854	-	-	-	-	-	1	-	1
1854-1860	-	1	1	-	2	-	-	4
ca. 1880-1900	-	1	-	-	-	-	-	1
TOTAL	**-**	**3**	**10**	**-**	**2**	**2**	**1**	**18**

Table B21. Age at death for pork cuts identified within tightly dated Shaker deposits at the NFL

	AGE CLASS (months)							
DATE	Fetal/ Newborn	<12	12-24	24-30	30-36	36-42	>42	TOTAL
pre-1826	-	-	-	-	-	-	-	-
ca. 1826	-	-	-	-	-	-	-	-
ca. 1836	-	-	-	-	-	-	-	-
1840-1849	-	-	1	1	-	9	22	33
ca. 1850	-	-	-	-	-	1	-	1
ca. 1854	-	-	-	-	-	1	-	1
1854-1860	-	8	1	2	-	-	-	11
ca. 1880-1900	-	-	-	-	-	-	-	-
TOTAL	**-**	**8**	**2**	**3**	**-**	**11**	**22**	**46**

Comparison with Hancock Village Sample

The apparent patterns present in the North Family Lot dated sample differ from those identified by Keatley in the Hancock Village sample. Based on the remains recovered from Hancock Village, Keatley (1986) determined that the majority of the cows that were represented by the slaughter assemblage were at least 1.5 to 2.5 years old at the time of death. Two sheep identified in the Hancock assemblage were under 2 years of age. One of these individuals was 18 to 24 months old at the time of death, and the other was younger than 18 months (Keatley 1986). No pig remains were recovered from the Hancock Village slaughterhouse locale. The younger ages of cows and sheep in the Hancock Village sample suggest that the herds were kept to produce meat.

The differences between the North Family Lot and Hancock Village samples may reflect actual husbandry practices and use patterns, although we cannot rule out sample size and context bias. The Hancock Village sample totals 398 bone fragments compared with the 1,661 fragments of the North Family Lot sample; more diversity in age classes may be seen in the North Family Lot sample simply because it is larger. In addition, the Hancock Village sample is from a sheet midden deposit near the presumed locale of a slaughterhouse, while the sample from the North Family Lot appears to be the result of domestic refuse disposal. This contextual difference introduces another source of sample composition bias. Additional research on Shaker deposits from similar contexts would help clarify the patterns observed in these two samples.

Worked Bone and Shell Artifacts

The use of animal bone and shell as raw materials to create tools and other manufactured objects is a tradition that dates back tens of thousands of years. Bone and shell are readily available, durable, and to a certain extent, renewable resources. It appears that the occupants of the North Family Lot both bought and made bone and shell objects over the active time span of the site. The discussion here of the worked bone artifacts are grouped into three categories based on their relative frequency: buttons, potter's tools, and miscellaneous. The locations of bone and shell buttons are shown in Figure 15, while the locations of all other worked bone and shell artifacts are shown in Figure 16.

Buttons

Toggles and buttons have been used to fasten clothing for thousands of years; we can trace their manufacture and use back to indigenous groups of the Arctic, the Indus River Valley, and China. Buttons in Europe have been dated to the Bronze Age, when they were seen as largely decorative. In Western cultures, the concept of buttons and buttonholes as practical fasteners for clothing appears to have developed in Europe during the twelfth and thirteenth centuries A.D. From the Middle Ages onward, large button-production industries could be found throughout Europe, particularly near the larger urban areas and markets such as Amsterdam, Vienna, and Birmingham.

Button manufacture in the British Colonies of North America dates back to at least 1750, and by 1812, bone, ivory, and horn buttons were being produced (Claassen 1994:4). One of the first commercial bone-button manufacturers in the United States was Aaron Benedict, who founded the Waterbury Button Company in Waterbury, Connecticut, in 1812 (Luscomb 2006:220). Before 1812, it appears that commercially produced bone buttons were imported from Europe.

In general, American commercial production of shell buttons lagged behind that of bone buttons. During the first half of the 1800s, European manufacturers monopolized the shell button industry, but as the European industries began to wan, American shell button production slowly increased. According to Claassen (1994:80), Americans first imported marine shell in ca. 1852. Utilitarian shell buttons were still imported in large numbers through 1890; however, the high cost of all imported buttons encouraged the development of cottage industries that focused on making buttons from organic materials such as wood, bone, and shell (Claassen 1994:5).

The growth of commercial production of freshwater shell buttons in the United States can be linked to the McKinley tariff passed in 1890 (Claassen 1994:5). This tariff placed a very high tax on all foreign goods and was intended to spur domestic economic growth (Knepper 1997:269). While a pearl button manufacturer is listed in the city directory for Cincinnati in 1880, it is not until 1890 that multiple firms were present, including regional plants for several East Coast manufacturers (Claassen 1994:5). During the 1890s, pearl-button manufacturing spread to other parts of the Midwest, particularly along the Mississippi River.

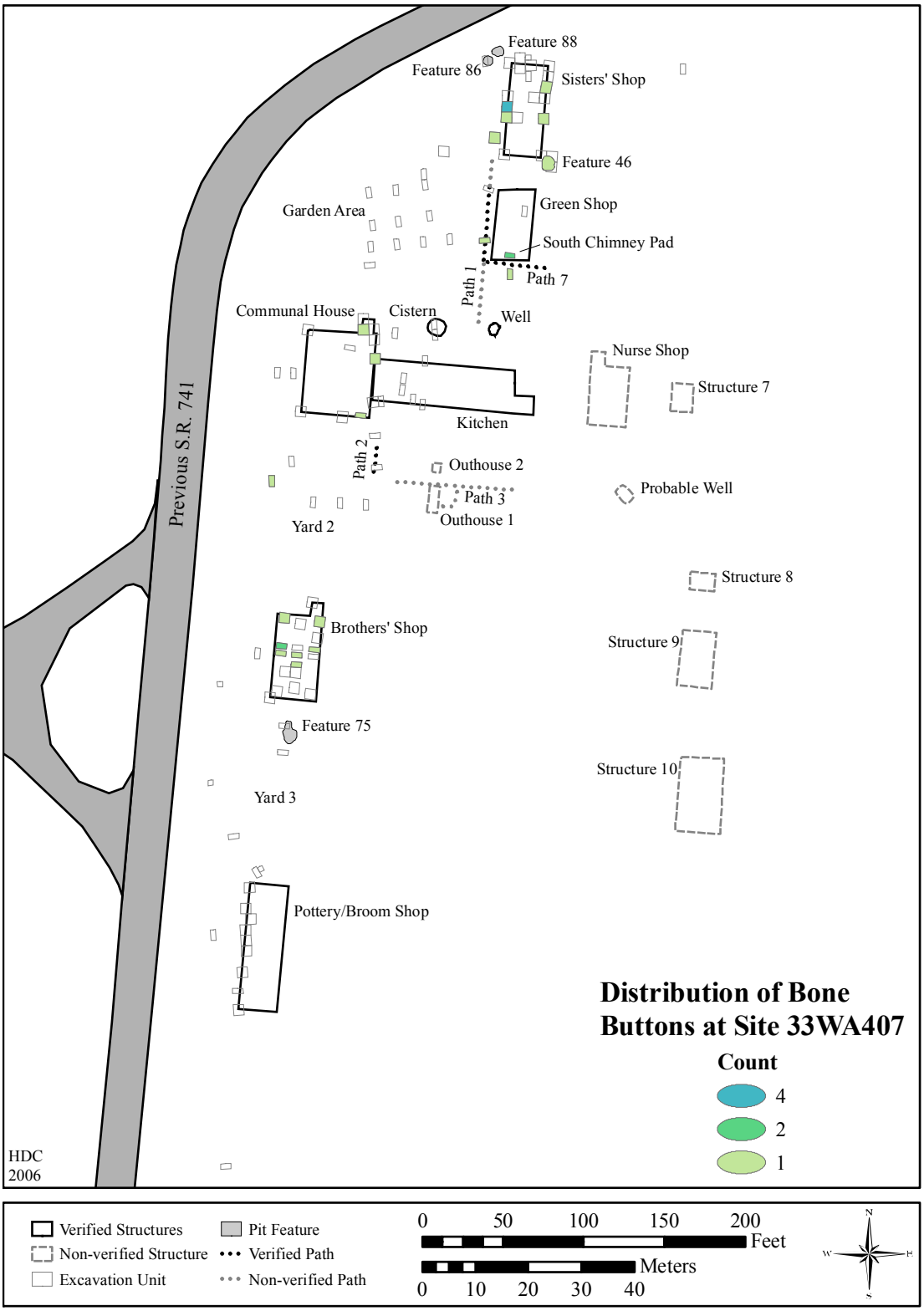

Figure 15. Distribution of bone buttons across the site

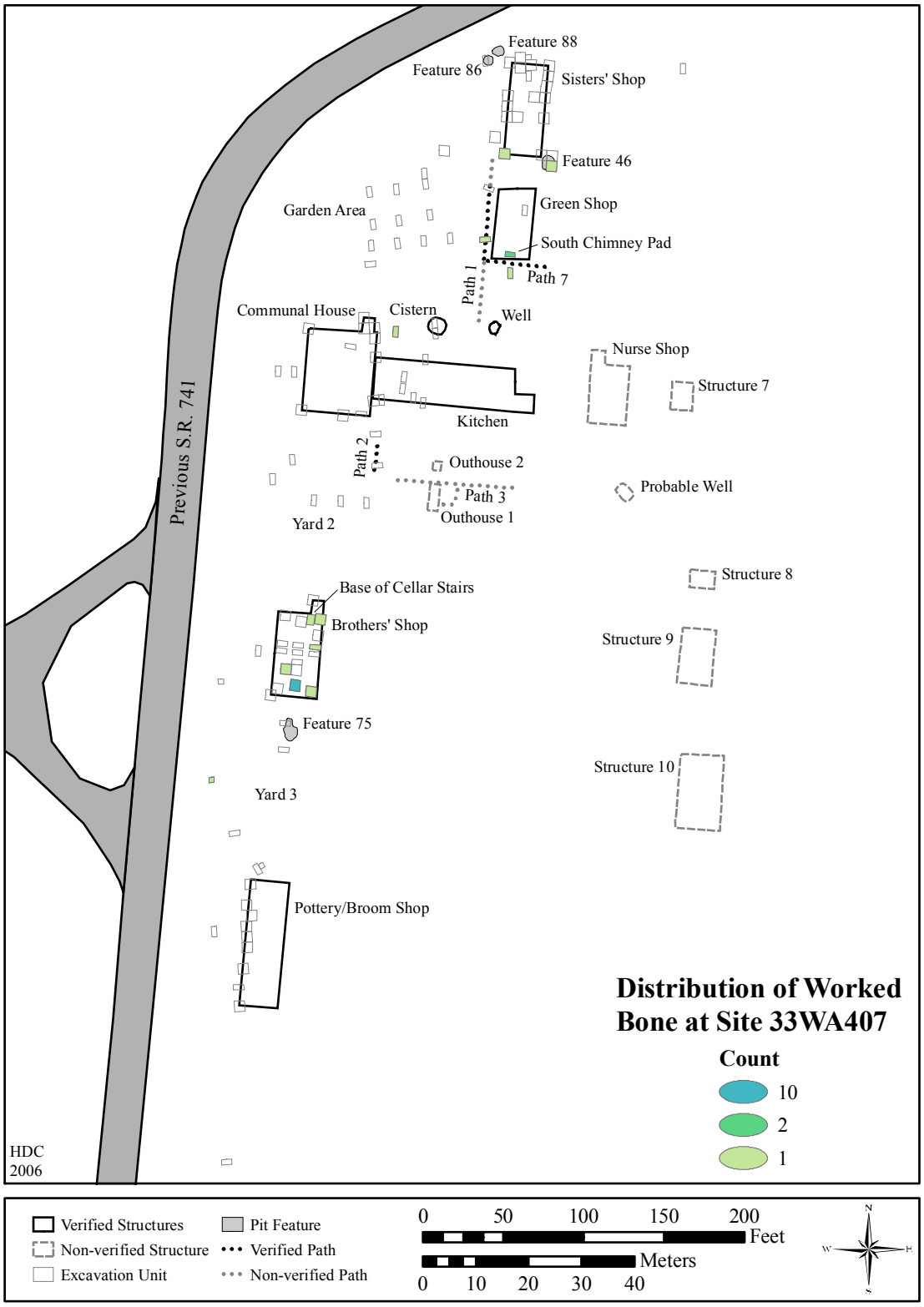

Figure 16. Distribution of worked bone and shell artifacts across the site, excluding buttons

While we know the basic timeline of bone button manufacture in the United States, the methods of hand and mechanized production of these items are less well documented. Glazer (2006:63–64, 72) pointed out that the creation of a bone button begins with the selection of the raw material, which may have depended more on which animal species and elements were available rather than on which elements were most economical. Luscomb (2006:25) states that bone for buttons typically came from cattle, while Carpenter reports (1907:97) that the hipbones, horns, and shoulder blades of both cows and pigs were obtained from meat packing plants for use in producing bone buttons. Archaeological evidence for button manufacture indicates the use of a variety of bones, including ribs, from domesticated animals including sheep, cow, and pig (Glazer 2006:4–8).

Manufacturing Techniques

Once the bones were obtained, they were first boiled to clean and soften them. They were then cut into slabs, and any marrow was removed. From the slabs, the buttons were cut, either by hand or through a mechanized process. Glazer (2006:10–11) has researched the methods of button manufacture by hand and suggests that these manufacturers used a frame-saw and a carpenter's brace modified with a center button bit to cut the slabs and produce center-hole button blanks. The rough surfaces of the blanks were then smoothed, or finished, and the remaining holes drilled. Matchen (2005, 2006) found this same basic process when researching button-manufacturing patent literature, except that the sawing, drilling, and finishing of the buttons was automated. Slabs were modified using a variety of mechanized lathes, drills, and grinders in order to mass-produce bone buttons.

The commercial manufacturing process for freshwater shell buttons in the United States in the late 1800s was similar to that used for bone buttons, but it is perhaps better documented. Once the meat was removed, shells were bought from suppliers and sorted by size, and then soaked in water to soften them for cutting, anywhere from several days to more than a week (Carpenter 1908:314; Claassen 1994:53). Blanks were created from the shells using a mechanized cutting bit that was sized according to standard button sizes. Button blanks would then undergo a series of steps in the facing and finishing stages. Claassen (1994:55) reports that button-blank finishing consisted of at least six steps, the first of which was to tumble it with water and pumice and then use an emery wheel to round the edges and flatten the back of the button. Subsequent steps included soaking the buttons, cutting the faces, and drilling the holes (two or four). The buttons were then polished, first with water and sand and then with sulphuric acid and steam, after which they were dried in sawdust. The final cleaning and polishing of the buttons consisted of tumbling them in a barrel with dry sawdust and washing powder. Buttons were then sorted by grade and either boxed for wholesale to clothing manufacturers or put on cards for retail markets (Claassen 1994:55–56).

Button Classification

Buttons have long been collected and categorized by enthusiasts as well as professional archaeologists. However, unlike highly stylized buttons of metal, glass, porcelain, and other materials, bone buttons have not received much attention from archaeologists beyond noting their functional and morphological characteristics, in part because bone buttons are viewed as

being of very little use in chronological or socio-economic research. In the eighteenth and nineteenth centuries, bone buttons served as cores for cloth-covered buttons and as backs for metal stamped buttons, or they were plain, utilitarian items used primarily on undergarments (Hinks 1995:67). They are typically classified according to shape and attachment type. Utilitarian shell buttons are similarly classified (Claassen 1994:73–79).

More recently, Matchen (2005, 2006) has proposed a technological classification scheme for utilitarian bone buttons. Matchen traced changes in bone button manufacturing through the patent literature and identified several attributes that may be associated with changing production techniques, including include button-hole arrangement, button-hole shaft shape, cutting bit marks, button edge characteristics, and polish. Information on these attributes were gathered from several tightly dated nineteenth-century American archaeological assemblages in an attempt to assign chronological significance to the assemblages. Based on his research, Matchen (2006:12) defined several trends in the development of nineteenth-century button-making techniques:

- The presence of a central alignment hole decreases over time.
- Button-hole shaft shapes change over time from straight to conical.
- Misalignment and other production errors increase after automated machinery was introduced in the 1850s.
- Polished and ground button edges increase over time.

While this classification system requires more testing on additional samples, it is very promising for the future significance of bone buttons as an artifact class in historical archaeology.

The bone and shell buttons in this study were initially classified according to simple morphological characteristics that included shape, size, weight, button face type (recessed, for example), and attachment type (for example, sew-through, shanked, self-shanked). Twenty-five bone and shell buttons were recovered during the Phase III investigations, a selection of which is shown in Figure 17.

Sixteen of these 25 buttons were made from mammal bone, while the remaining nine were made from shell, most likely freshwater shell. Basic characteristics of the bone and shell buttons are summarized in Table B22 and Table B23. All bone and shell buttons had circular outlines, and all but one shell button had an attachment type of sew-through. The one anomaly is an alpha-shanked, disk-shaped, shell button that we recovered from a probable rodent hole in the cellar floor of the Brothers' Shop. The other 24 buttons came from a variety of contexts, but only five items were recovered from securely dated strata.

Bone buttons have one, four, or five holes. Four-hole buttons make up the majority of the sample (n=11; 69%), followed by five-hole buttons (n=4; 25%). Sew-through shell buttons were evenly divided between two-hole buttons and four-hole buttons. Five size classes were identified for bone buttons based on diameter: 14–14.9 mm, 15–15.9 mm, 16–16.9 mm, 17–17.9 and 19–19.9 mm. Three size classes were identified for shell buttons based on diameter: 8–10 mm, 12–13 mm, and 17–19 mm.

Figure 17. A sample of bone buttons (top row) and shell buttons (bottom row) recovered from the North Family Lot during the Phase III investigations

Table B22. Summary of basic bone button attributes

FS Number	Count	Weight (g)	Shape	Diameter (mm)	Attachment type	Number of holes
0214	1	0.30	Circular	16.7	Sew-through	4
0426	1	1.50	Circular	19.7	Sew-through	4
0434	1	0.60	Circular	16.7	Sew-through	4
0449	1	0.20	Circular	15.2	Sew-through	4
0733	1	0.40	Circular	14.1	Sew-through	4
0896	1	0.30	Circular	17.5	Sew-through	4
0949	1	0.40	Circular	14.3	Sew-through	1
1119	1	0.60	Circular	16.5	Sew-through	4
1181	1	0.80	Circular	17.3	Sew-through	5
1187	1	0.60	Circular	16.8	Sew-through	4
1253	1	0.80	Circular	16.7	Sew-through	5
1267	1	0.70	Circular	16.7	Sew-through	5
1288	1	0.80	Circular	16.4	Sew-through	4
1535	1	0.60	Circular	17.3	Sew-through	4
1685	1	0.70	Circular	16.3	Sew-through	5
1691	1	0.70	Circular	17.0	Sew-through	4

Table B23. Summary of basic shell button attributes

FS Number	Count	Weight (g)	Shape	Diameter (mm)	Attachment type	Number of holes
0656	1	0.10	Circular	8.7	Sew-through	2
0774	1	0.40	Circular	12.8	Sew-through	2
0774	1	0.40	Circular	12.8	Sew-through	2
0774	1	0.20	Circular	9.9	Sew-through	4
0825	1	0.10	Circular	8.2	Sew-through	4
1195	1	1.40	Circular	18.4	Sew-through	2
1216	1	0.20	Circular	9.7	Sew-through	4
1350	1	1.70	Circular	17.5	Shanked (Alpha)	N/A
1475	1	0.30	Circular	12.3	Sew-through	4 or 5

So which questions can we address with the button information from the North Family Lot? One topic the bone and shell buttons might speak to involves craft production, specifically whether the Shakers were producing buttons at the North Family Lot. If so, were they making them for community use or commercial sale? As Wergland (2006:149) points out, the in-house mass-production of buttons using mechanized devices would cost less than purchasing or trading for buttons from outside sources, and it would also provide another craft industry in which the Shakers could pursue perfection.

There is indeed evidence that at least one Shaker community manufactured large quantities of buttons: Isaac Youngs of New Lebanon, New York, reports the manufacture of upwards of 28,000 bone buttons with mechanized devices in 1820 for use in the Shaker community (Wergland 2006:149). Youngs also reports the production of large quantities of buttons in 1840, 1851, and 1853. However, this level of manufacture does not seem to occur at Union Village, at least not at the North Family Lot. First, button manufacturing was never mentioned in the primary and secondary sources on Union Village that we reviewed for this report series. Second, items associated with bone-button production were not recovered during the recent excavations—artifacts such as button bits, hand braces, lathes, raw material with button blanks removed (see Figure 18 for an example), or button rejects. A few of the buttons in the North Family Lot assemblage appear to have been drilled by hand, rather than by machine. All of this information suggests that North Family Lot buttons were either made as the need arose, or they were purchased in small quantities; it seems unlikely that any hand or mechanized commercial production of bone or shell buttons occurred at the North Family Lot, nor does it seem likely that buttons were manufactured in any significant quantity at Union Village.

A second topic we had hoped to address entailed applying Matchen's classification scheme to the North Family Lot bone button assemblage, in an attempt to gain information on manufacturing technique and deposit chronology. Unfortunately, only five of the bone buttons were recovered from primary, sealed deposits datable to the Shaker period. The remaining 12 bone buttons were recovered from disturbed, secondary, or mixed deposits with long depositional spans, as determined by other artifact classes. The very small sample size from dated contexts and the questionable context of the remaining buttons made examining trends over time nearly impossible.

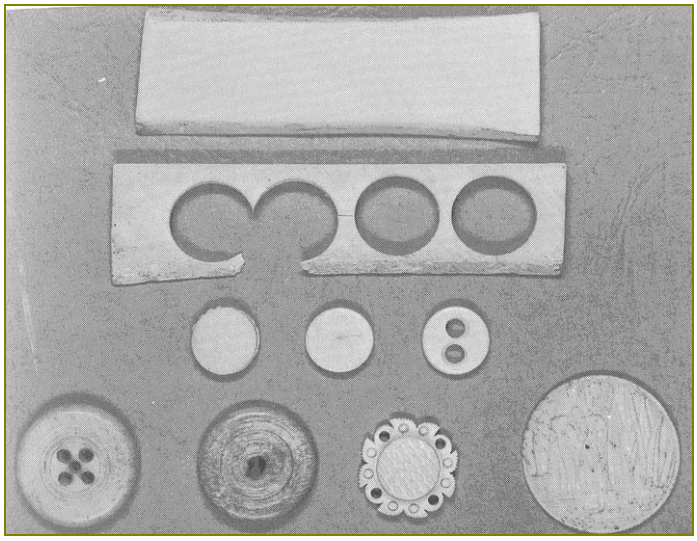

Figure 18. Photograph from Luscomb (2006:25) showing the bone slabs that are used in manufacturing bone buttons, as well as an example of blanks removed from a bone slab

Possible Potter's Tools

Nine artifacts thought to represent tools used by potters were recovered from the dirt cellar floor in the Brothers' Shop, in context with pottery wasters. These artifacts, a selection of which is shown in Figure 19 and Figure 20, are flat, rectangularly shaped pieces of medium-to-large and/or large mammal long bone shaft fragments.

Figure 19. Selection of potter's tools from the North Family Lot

Figure 20. Selection of potter's tools from the North Family Lot

Based on morphology, these tools can be divided into three groups:

Type 1: Narrow **Number of specimens: 4**

The defining characteristic of this type is the narrow width of the specimens. The average width is 12.1 mm with a range of 11.1 to 13 mm. Three of the specimens are highly uniform in terms of length and thickness. The average length for the three unbroken items is 120.3 mm with a range of 110.8 to 125.66 mm. Thickness averages 6.1 mm with a range of 5.8 to 6.7 mm. The fourth member of this group was broken and had been exposed to fire that reduced its overall dimensions. The broken and calcined specimen is 9.64 mm wide by 48.67 mm long and 4.54 mm thick.

Type 2: Wide **Number of specimens: 2**

The defining characteristic of this type is the larger width of the specimens. The average width is 17.55 mm with a range of 17.1 to 18 mm. These two items are also uniform in length (the average is 109.65 mm with a range of 108.9 to 110.4 mm) and thickness (the average is 6.3 mm with a range of 5.9 to 6.7 mm).

Type 3: Unfinished **Number of specimens: 3**

The unfinished form of the three items in this group sets them apart from the other tools. All three of these specimens are thick, and the edges have not been filed down after the saw cut. Two of the specimens are highly uniform in overall dimensions. Width averages 23 mm with a range of 21.2 to 24.8 mm for the two uniform specimens. The average thickness for these two items is 10.8 mm with a range of 9.3 to 12.3 mm. The average length for the two is 78.25 mm with a range of 73.6 to 82.9 mm. The third member of this group was exposed to fire, which reduced its overall dimensions. The calcined specimen is 16 mm wide by 59.5 mm long and 8.6 mm thick.

A clue to the manufacture of these tools is found in a tenth artifact that was found among them: a medium-to-large mammal long bone shaft section that has been sawn through twice, perpendicular to the long axis (Figure 21 and Figure 22). The shaft section has been flattened and squared on both the interior and exterior surfaces with a file or rasp, and it appears to be the remnant of a pre-form for making the flat, rectangular items described above. The Type 3 specimens are likely an intermediary stage in the manufacture process, somewhere between the shaft pre-form and the finished tools.

Figure 21. Remnant of potter's tool preform, planview

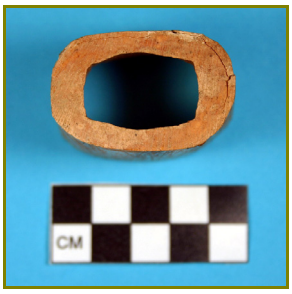

Figure 22. Remnant of potter's tool preform, cross section

Our interpretation of these bone artifacts as potter's tools is somewhat tenuous and is based on the context of the bone artifacts (that they were found in a deposit with pottery wasters) and the information we gleaned from a small photograph in a published article on the historic pottery industry in Virginia, cited below.

As we discussed in the volume 2 of this report series (*A Clean and Lively Appearance—Landscape and Architecture of the North Family Lot*), the Brothers' Shop had multiple functions during the Shaker tenure at the North Family Lot. The building obviously served as a workspace for the Shaker brothers, and we can reasonably assume that tools used in the adjacent pottery were fashioned in the Brothers' Shop. Additionally, vessel manufacture for the pottery may have begun in the Brothers' Shop before the pottery shop building was completed, which is suggested by the staggering quantity of pottery wasters present in the builders' trenches for the 1836 addition to the pottery.

Our research yielded a photograph containing analogous potter's tools from the National Museum of American History, published by Horvath and Duez in their article on the pottery industry in Morgan's Town, Virginia (2004:120, Figure 52). The photo in the published article was small, making it difficult for us to directly compare the items in the photograph with the rectangular bone artifacts we recovered from the Brothers' Shop. The photo is reproduced here in Figure 23 at a slightly larger scale, and the flat rectangular items are located in the upper left quadrant of the picture. The items recovered from the Brothers' Shop do resemble the potter's tools in the picture and, while there may be other valid interpretations for these items, we hypothesize here that they represent potter's tools, based on the available evidence.

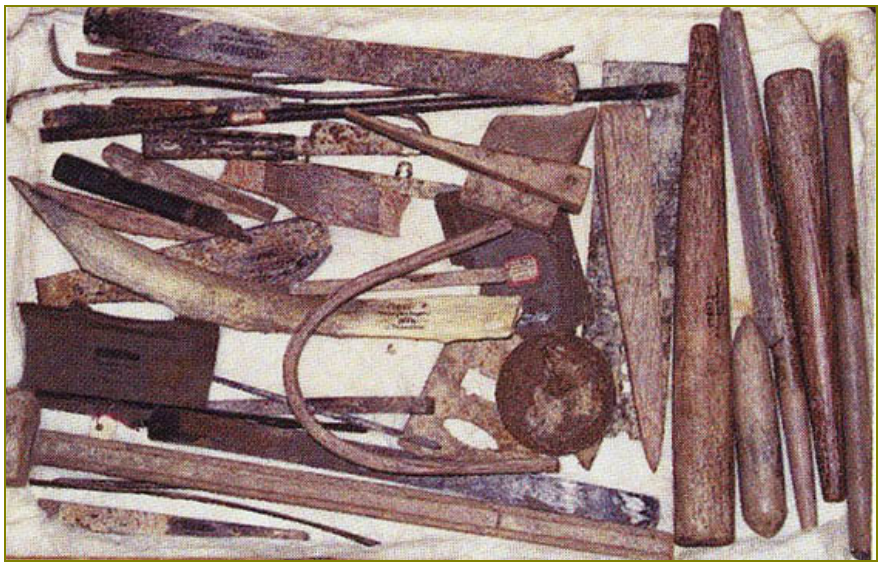

Figure 23. Potter's tools from the National Museum of American History as published in Horvath and Duez (2004:120)

Miscellaneous Bone and Shell Artifacts

Miscellaneous artifacts recovered from the 2005 excavations include bone fragments of the following kinds of items: toothbrush (2 fragments), comb, band, finial or spindle, and fastener or hinge. Also included were two fragments of modified long bone shafts from a medium-to-large mammal, one decorative shell artifact, and one shell artifact with a drilled center hole.

Toothbrushes

References to dental hygiene date back thousands of years, but a Chinese emperor is credited with having the first toothbrush in A.D. 1498 (LOC-RC 2006). We can trace the development of the toothbrush in Western society to England in the early to mid 1700s, when the brush-making industry began to organize (Shackel 1993:43). William Addis of Clerkenwald, England is credited by many as the first mass-producer of the toothbrush, around 1780 (LOC-RC 2006). European settlers introduced the toothbrush to the United States, and its popularity steadily grew throughout the 1800s. H. N. Wadsworth was the first American to hold a patent for a toothbrush in the 1850s, and mass production of toothbrushes in the United States began around 1885.

Toothbrushes of the 1700s and 1800s consisted of two parts: the stock and the bristles. Stocks were typically cut from one of the larger limb bones of the cow. Carpenter (1907:97) reports that the thigh bone, or femur, was the element of choice for toothbrush and knife handles. Natural bristles, principally from hogs, were inserted into holes drilled in the stock. This basic formula for manufacturing toothbrushes remained unchanged until the introduction of celluloid handles during World War I and nylon bristles in 1938 (LOC-RC 2006).

Shackel (1993: 44–46) described three general stages of toothbrush manufacture during the 1700s and 1800s.

1. The earliest stage of manufacturing involved drilling the stock with a hand-held drill. Craftsmen determined where to place the holes, resulting in the uneven distribution and spacing of holes along two or three columns. Pitch panning was the construction process by which bristles were secured to the hand-drilled stock: bristles were dipped in pitch, bound with a string, re-dipped, and then inserted into the drilled holes.
2. In the next stage, the craftsmen manually maneuvered the stock around a fixed and rotating drill instead of a hand-held drill. Hole placement was still performed by the craftsman.
3. In the later stage of bone toothbrush manufacture (before synthetic materials were introduced), stocks were drilled using a metal template and a fixed drill. Templates were used to place the holes, and the number of columns of holes increased to four or more.

Craftsmen had three different ways of attaching the bristles to stocks that had been bored with a fixed drill, all of which involved "wire drawing," a process that consisted of inserting a wire or string behind the bore holes, pulling it up through the bore hole, inserting the bristles under the wire or string, and then pulling the wire tight, drawing the bristles down into the stock:

- Wire drawing–reverse side holes: With this method, the wire was inserted through holes drilled on the backside of the stock.
- Wire drawing–reverse side channel: Here, a groove or channel was cut on the reverse side of the stock, running along the length of each drill hole column. The wire was then inserted along the groove.
- Trepanning: A hole was drilled down the center of the stock, parallel to and connecting the bristle holes in each column. The wire or string was then threaded into the stock from the entry hole on the tip of the stock, and then pulled through the holes using a small hook.

Two toothbrush fragments were recovered during the Phase III investigation at the North Family Lot. Both fragments consist of the head portion of the stock; the bristles were not present. "Toothbrush 1" is shown on the left in Figure 24. This specimen was recovered from a silt loam deposit with early twentieth-century artifacts in Unit 13 between the Communal House and the Cistern. Four distinct columns of drilled holes are present in the stock. Each column has approximately 16 rows, for a minimum number of 64 bristle holes. Although the stock is split, it appears that the bristles were secured to the stock through the trepanning method. "Toothbrush 2" is shown on the right in Figure 24. This specimen was recovered from near the rough limestone cobble foundation in the South Chimney area of the Green Shop and has a probable deposition date in the 1880s to the 1890s. Four distinct columns of drilled holes are present in the stock. Each column has approximately 19 rows, for a minimum number of 76 bristle holes. The stock is complete on this toothbrush, and the four holes representing the channels used in trepanning are present on the tip of the stock.

Shackel (1993: 47–49) found that standardization in the manufacturing of the stock increased over time. When compared to toothbrushes recovered from deposits dating to the later 1800s, toothbrushes recovered from deposits dating to the late 1700s and early 1800s showed more manufacturing errors, and the holes were inconsistently drilled in both depth and spacing. Based on the regular form and even spacing of the drill holes in the recovered artifacts, both appear to fall within the later time period of toothbrush manufacture as described by Shackel.

Comb

One fragment of a bone comb was recovered from the cellar stairs of the Brothers' Shop when the steps were being cleared for documentation. The comb appears to have been manufactured from the long bone of a large mammal and is highly polished. The regularity of the teeth spacing suggests a commercial production for this object. The fragment of bone comb is shown in Figure 25.

Bone Band

One broken, circular band of highly polished bone was retrieved from a mottled, disturbed clay layer in Unit 11 along Path 1. The item, shown in Figure 26, resembles a portion of an ivory napkin ring recovered from the Shaker village in Canterbury, New Hampshire, and depicted in Starbuck (2004:63; Fig. 3-32), reproduced in Figure 27. The piece from the North Family Lot, however, is much smaller in diameter than a typical napkin ring. The artifact was manufactured from a large mammal long bone shaft fragment.

Figure 24. Two toothbrush stocks from the North Family Lot excavations

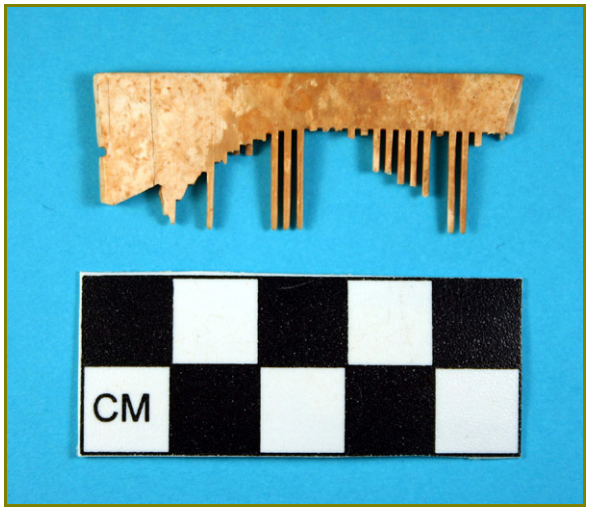

Figure 25. Bone comb fragment

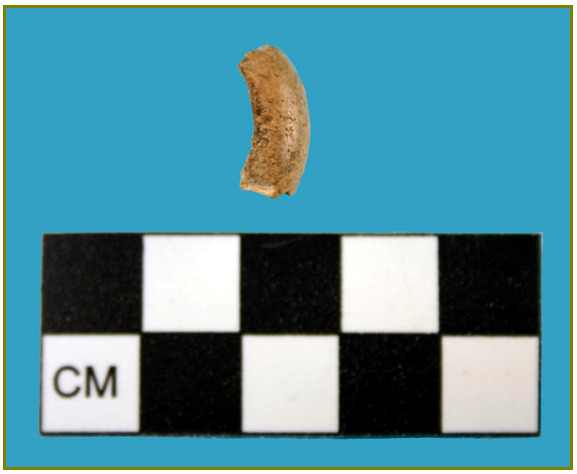

Figure 26. Bone ring (?) fragment

Figure 27. Ivory napkin ring, published in Starbuck (2004:63)

Bone Finial or Spindle

A fragment of a medium-to-large mammal long bone shaft that was carved to form a finial or spindle (Figure 28) was recovered from a fill layer along the exterior walls of the Sisters' Shop. The item has a diameter of 8.5 mm and is highly polished, although it is marred by root etching and carnivore tooth marks.

Figure 28. Bone finial/spindle (?)

Bone Fastener or Hinge

One highly polished bone artifact (Figure 29) was recovered from the upper sod layer of Unit 66, located immediately south of the Green Shop. The item likely was manufactured from the long bone shaft of a medium-to-large mammal. The artifact is carved from one piece of bone and consists of two distinctive sections: a flat, plate-like back with drilled holes for use with tacks or nails, and a hollow tube-like section. The shape of the object suggests that it was used as part of a fastener or a hinge.

Figure 29. Bone fastener or hinge (?)

Bone Handle Scales

Composite hand utensils of the 1800s (such as silverware) typically consisted of an iron and/or steel piece with a handle constructed of two "scales" fastened to the metal portion with pins (Dunning 2000:33). Composite utensils were generally less expensive than items crafted solely from metal, with bone and wood being common materials for handle scales. Three modified bone artifacts thought to represent handle scales were recovered during the Phase III investigation at the North Family Lot.

One handle scale was recovered from Unit 76 outside the southeast corner of the Sisters' Shop (Figure 30). This item was made from a long bone shaft fragment of a medium-to-large mammal. The artifact is semi-circular in cross section with a highly polished exterior surface. The interior portion of the scale is flat and stained by rust, indicating that this surface was next to the metal implement. A drilled pin hole is along one broken margin of the artifact. The finished nature and shape of this handle scale fragment suggests it was originally attached to a piece of cutlery.

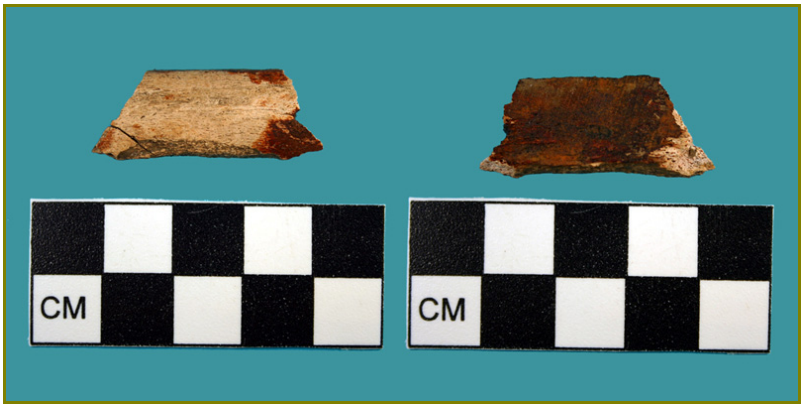

Figure 30. Bone handle scale from Unit 76, outside the southeast corner of the Sisters' Shop

Two handle scales were recovered from units excavated in the Brothers' Shop. One handle scale was recovered from a builder's trench for an interior brick wall of the structure and was manufactured from the rib shaft of a medium-to-large mammal. The other handle scale was recovered from the dirt cellar floor in the south half of the structure and was manufactured from a long bone shaft fragment of a medium-to-large mammal. These scales are nearly flat in cross section and have drilled pin or nail holes (Figure 31). Both artifacts are roughly made and do not have the rust stains we would expect of scales attached to an iron or steel utensil. These two items may represent blanks or unfinished scales. Because of their rough nature, we hypothesize that the two items were intended to be used as tool handle scales.

Figure 31. Bone handle scales: specimen from builder's trench of the Brothers' Shop (left) and specimen from the dirt cellar floor of the Brothers' Shop (right)

Modified Mammal Long Bone Shaft Fragment 1

One modified long bone shaft (Figure 32) from a medium-to-large mammal was recovered from a possible rodent hole in the cellar floor of the Brothers' Shop. This item was cut into a rectangular shape, and based on striations present on the artifact, the surfaces were smoothed by an instrument resembling a file or rasp. A semi-circle measuring 7.7 mm across was drilled through the artifact along one edge. We were unable to identify this item but speculate that the function of the piece was utilitarian.

Figure 32. Modified mammal long bone shaft fragment

Modified Mammal Long Bone Shaft Fragment 2

One modified long bone shaft (Figure 33) from a medium-to-large mammal was recovered from Stratum 5 in Unit 5 of the Fence 1 area. This item was charred and had been cut flat along one surface. The opposing surface was rounded and had a high polish. The specimen was not identified and appears to be a fragment of the original item.

Figure 33. Interior and exterior surfaces of the smaller modified bone from Unit 5

Decorative Shell Artifact

A decorative shell artifact (Figure 34) was recovered from the dirt cellar floor on the north side of the Brothers' Shop. This item is a flat, carved piece of shell with faint engraving or etching on one surface and two drilled holes for attaching. While not identified as any specific item, the artifact appears to be decorative in nature and may have been part of a shell inlay or affixed to an object as adornment.

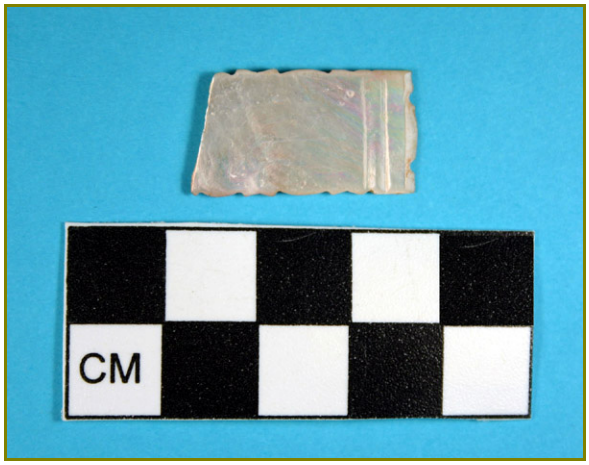

Figure 34. Decorative shell artifact

Unidentified Shell Artifact

One roughly circular piece of freshwater shell with a drilled center hole (Figure 35) was recovered from near the rough limestone cobble foundation in the South Chimney area of the Green Shop. The item was weathered, and the outer layers of the shell were flaking off. The unfinished nature of the artifact plus the poor preservation of the item made identification impossible.

Figure 35. Unidentified shell artifact

Discussion of Worked Bone Artifacts

The worked bone artifacts recovered from the Phase III investigations at the North Family Lot likely include both items that were made on site as needed and items that appear to have been commercially produced and obtained from outside sources. We have suggested here that items such as the bone comb and the two toothbrush fragments were commercially manufactured somewhere other than the North Family Lot. These items may have been brought to the community by new members or tenants, or they may have been purchased from an outside source.

However, the majority of the other worked bone artifacts appear to not be commercially produced items. The artifacts described here as pottery tools provide indirect evidence of the pottery industry at the North Family Lot, and the various stages of their manufacture indicate they were made on site. The possible bone spindle from near the Sisters' Shop might be a link to textile production. And given the information we have, it seems unlikely that any hand or mechanized commercial production of bone or shell buttons occurred at the North Family Lot. Furthermore, it seems unlikely that buttons were manufactured in the quantity we would expect if the Shakers were commercially producing the buttons, or finished clothing.

Conclusion

Summary of Findings

To Union Village Shakers, farm animals were not only a source of protein or a food item to be regulated by leaders of the church, they were also major commodities in the Shaker economy, produced for both external sale and internal consumption. In the archaeological record, bones are the only direct evidence of such Shaker livestock—animals and meat products were transported to outside markets, and many related items consumed on site were perishable, such as meat and wool.

The animal bone information collected from the excavations at the North Family Lot at Union village has provided a brief glimpse into the dietary and animal husbandry practices of the residents there. The ban on pigs and pork products enacted with the Millennial Laws of the 1840s was not strictly enforced at Union Village, as demonstrated by the pig bones recovered from all tightly dated Shaker deposits investigated at the North Family Lot. Between 1840 and 1890, the proportion of high rank cuts and waste materials increased while medium and low rank cuts decreased. The change in relative frequencies of meat cut ranks over time likely reflects overall trends in the social history of the Second Family and not differences in social status within the Shaker family or between Shaker orders.

The presence of butchery waste together with specific meat cuts indicates that animals were butchered on site rather than arriving at the North Family Lot in a butchered form. The animal bone assemblage shows that the heads of the pigs and cows were removed, and then the carcasses were split into right and left halves along the backbone. The resident butchers used standard butchery tools, such as knives, cleavers/axes, and fine-toothed handsaws, with handsaws being the most frequently used tool. Age profiles of cows and sheep indicate that cows and sheep were being kept primarily for resources other than meat, probably as a source of dairy products and wool, respectively. Age-at-death information for pigs indicate that, unlike cows and sheep, pigs were being kept for their meat and as breeding stock.

Like other peoples of the human past, the Shakers utilized animal bone and shell as raw materials to create tools and other manufactured objects, in addition to keeping the animals for food and commercial export. Residents of the North Family Lot likely found bone and shell to be readily available and durable. It appears that bone and shell objects were produced at the North Family Lot on an as-needed basis or on a small scale; there is no indication of a craft industry dependent on bone or shell. Hand-made bone items do provide indirect evidence of both the pottery and the textile craft industries that played a prominent role in the economy of the North Family Lot at various times.

Directions for Future Research

Future research on animal remains from Union Village archaeological deposits has the potential to address many unanswered questions raised in this study, as well as other questions, particularly if suitable samples can be collected. We propose here that animal remains with specific temporal and cultural affiliations are best suited to answer research questions that focus on Shaker diet and butchery practices, and their use of bone as a raw

material. To this end, future research at the North Family Lot and other areas of Union Village should focus on identifying and excavating sealed deposits, such as privies and refuse pits, in order to maximize the probability that faunal remains fitting these criteria will be recovered. Suggestions for future research topics are grouped into the three broad categories:

- diet, animal husbandry, and butchery practices
- craft industries
- technical analyses

Diet, animal husbandry, and butchery practices

- A photograph in Phillippi (1917:7) indicates the presence of a slaughterhouse at the West Frame Lot at Union Village. Can the slaughterhouse location at the West Frame Lot at Union Village be verified in the archaeological record? Can any other slaughterhouse locations at Union Village be identified in the archaeological record? If the West Frame Lot slaughterhouse or any others are verified and investigated, how do the disposal patterns of butchering waste compare to the disposal pattern identified by Keatley (1986) at Hancock Village in Massachusetts? Does the waste assemblage from Union Village indicate a similar butchery pattern for cows as that recorded at Hancock Village? Can cull behaviors be identified through age and sex profiles of butchered remains? Do Union Village Shakers butcher their animals in a manner similar to non-Shakers residing in a rural setting? Are carcasses halved longitudinally for further reduction, or are carcasses initially portioned into anatomical units such as forelimbs, axial skeleton, and hindlimbs? Does the manner in which carcasses are divided vary by species? Is there a change over time in how animals are butchered?
- Are carcasses divided into portions suitable for communal dishes, such as stews and roasts, or are carcasses divided into meat cuts that indicate individual servings?
- A thorough study of relevant historical documents, including Shaker cookbooks, should be conducted in order to gather any available data regarding attitudes towards the hunting and trapping of wild animals by residents at Union Village and other Shaker communities.
- A thorough study of relevant historical documents, including newspaper advertising and Shaker cookbooks, should be conducted to develop a customized meat-cut ranking scheme and a more comprehensive list of the meat cuts used in Shaker cooking, especially their communal dishes. Of particular interest in the study of cookbooks would be the prevalence of dishes such as headcheese and pigs' feet as related to the "waste" materials seen in the archaeological record. In addition, studying the type of meat portions eaten (communal versus individual) may provide more insight into social differentiation between orders and families than analyzing meat-cut rankings because ranking can be subjective and biased by modern preferences (Reitz et al. 2006). Comparing the two approaches to assigning value to meat cuts also would be informative. All topics covered by these research directions would greatly enhance our ability to discuss status differentiation within and between family lots.

Craft industries

- Is there any archaeological evidence of a tanning industry? There is documentary and map (1829) evidence of a tanyard near the North Family Lot at the Square House Lot, and members of the North Family Lot may have briefly operated this tanyard. Archaeological evidence of a tanning industry might include identifying particular skinning patterns and/or butchery practices specific to removing the brain.
- At other family lots at Union Village, is there evidence of craft industries dependent on bone or shell, such as button or tool manufacture?

Technical analyses in historical archaeology

- If larger, more securely dated samples of utilitarian bone buttons are recovered, can they be classified according to Matchen's (2005, 2006) technological scheme; and if so, how does the information compare with temporal trends identified by Matchen?

Exploring these topics will help reveal additional details of the social and economic lives of Union Village residents, as well as the behaviors that deviate from the Shaker ideal. Information collected to address these topics can be compared with samples from other Western Shaker settlements. If suitable artifact samples are recovered, advances in the analytical techniques of historical archaeology are also possible. Studies of Shaker-period faunal remains from Union Village can, therefore, contribute in a variety of ways to archaeological and historical studies.

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