

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN ARCHAEOLOGICAL AND HISTORICAL EXAMINATION OF THE SULPHUR FORK
FACTORY, 1817-1822

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF ARTS

By

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Norman, Oklahoma
2023

AN ARCHAEOLOGICAL AND HISTORICAL EXAMINATION OF THE SULPHUR FORK
FACTORY, 1817-1822

A THESIS APPROVED FOR THE
DEPARTMENT OF ANTHROPOLOGY

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Acknowledgements

I would like to thank those who supported and guided me through the process of writing this thesis. First and foremost, I would like to thank my husband, Jordan, who has been an ardent supporter during this journey. Jordan has endured much as my sounding board, listening to me talk about the Sulphur Fork Factory ad nauseum. As my editor, he is now well versed in historic ceramics – much to his chagrin. And when plans went awry, he was my shoulder to cry on and always extended words of encouragement. His love, kindness, and patience have been invaluable, and I am truly grateful to have him as my partner in life.

I am deeply indebted to my advisor, Dr. Amanda Regnier, whose guidance made this thesis possible. I would also like to extend my sincere thanks to the members of my committee – Dr. Carl Drexler, Dr. Patrick Livingood, and Dr. Asa Randall. It would be remiss of me not to acknowledge Dr. K.G. Anderson who provided much needed assistance in navigating graduate school requirements and who consistently checked in with me throughout this process. Thank you to Deanna Holdcraft who lent her expertise whenever it was needed and who made this thesis better with her input.

Thank you to my family for their unconditional support and unwavering confidence in my abilities. And thank you to my Booker Street family, Jordan and I could not ask for better neighbors and friends.

Lastly, I would like to thank the friends I made while at OU. We will always share a special bond having gone through together the rigors of graduate school during a pandemic. I will always look back on the fellowship we shared with great fondness.

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Abstract

The United States Indian Factory System, an early experiment in public enterprise, was a late addition to the North American Fur Trade phenomenon. Created by an act of Congress in 1795, the factory system established a total of thirty-one trading posts, a majority of which were located along the Mississippi River and its western tributaries. It was part trade, part foreign policy, and part expansionist ideology. And it was among the earliest legislated acts governing relations with native peoples. This thesis focuses on the history and archaeology of the Sulphur Fork Factory (1817-1822), strategically located in present day southwest Arkansas. The Sulphur Fork Factory was identified and uncovered by an amateur archaeologist in 1988 and recorded as site 3M1266. With the development and utilization of ceramic chronology we can identify the site's period of occupation, which spanned around 100 years. A period of use well beyond the Sulphur Fork Factory's eight years of government occupation and operation. The record – both historical and archaeological – for factory store sites in the southeastern United States is limited. This thesis inches forward and documents one factory's role in the region.

Chapter 1

Introduction

The United States Indian Factory System, though an early experiment in public enterprise, was a late addition to the North American fur trade phenomenon. The factory system was created by an act of congress in 1795, and a total of thirty-one factories or trading posts were established during the system's twenty-seven-year history (Magnaghi 1979). The factories were located strategically along the Mississippi River and its western tributaries in order to ease the transportation of goods and also to reach as many native communities as possible. This thesis focuses on one of these factories: the Sulphur Fork Factory (1817-1822).

The factories were established and funded by the government and run by government appointed officials called factors. Factors were essentially managers of the factory and responsible for the day -to- day operations of their assigned post. The responsibilities of the factor included, but were not limited to, purchasing furs, skins, and pelts from Native Americans. The factors also endeavored to sell European goods to Native American customers at costs below that of private traders.

The United States government's desire to trade with Native Americans was an act of self-preservation. After the Revolutionary War the United States had no standing army of consequence, and the government found itself reliant on the good will of Native Americans (Magnaghi 1979). At the time there were nearly 150,000 native peoples living between the Appalachian Mountains and the Mississippi River (Magnaghi 1979; also see Nassaney 2015). Securing alliances with native groups, who were then aligned with the

English, became a matter of national security and an essential part of the new country's foreign policy. The factories were legislated into existence to meet the need.

The United States government also desired to expand its territory westward. American expansionists could have advocated a forceful advance and risked war with native communities standing in the way, they instead chose, at this time, to use the "nonviolent" methods exercised by their colonial predecessors. Thus, rather than turn Native Americans into enemies of the U.S., they elected to turn them into clients. This idea and, subsequently, the United States Indian Factory System also came to fruition as an assimilation policy and was considered the more "honorable" way to expand U.S. territory.

It should be noted here that while the United States chose a "nonviolent" policy on the frontier west of the Mississippi River in the early nineteenth century, the U.S. government also employed opposite tactics on the interior east of the Mississippi River. The interior of the U.S. was then populated by American citizens and the government likely viewed the interior as more secure from the indigenous population. Accordingly, the reasons for establishing a good relationship with the interior native groups no longer applied, and the U.S. could confidently overpower Native Americans and force them from their ancestral land.

The U.S. government drew from these experiences as it focused its sights on westward expansion. The U.S. had then few, if any, resources in the west. Developing a positive relationship with native groups was vital to expansion. As the area became more populated with Americans the U.S. grew more secure and became more confident

in its endeavor. Eventually, the U.S. would abandon all pretenses of nonviolence and forcibly take Native American land. The U.S. initiated its westward movement in a pattern of “nonviolence” towards Native Americans on the frontier in the early nineteenth century. But this stance on the frontier would rapidly change by the end of the nineteenth century, and the results would mimic the violence, dispossession, and removal the government previously allowed or imposed east of the Mississippi in the interior United States.

In the midst of these transitions in policy and practice, the government developed the factory system. The system had three primary purposes. First, the stated purpose of the factories, and therefore the job of the factors, was to establish through trade friendly relations with Native American communities. Second, the founders and advocates of the factory system, George Washington in particular, wanted to establish and develop unbreakable economic bonds between the U.S. and the indigenous population. And third, the U.S. wanted to drive British traders out of business. In order to achieve these objectives, the U.S. government relied on trade and diplomacy as the best method to make Native Americans dependent on European goods and thus create a reliance on the United States (Nichols 2016).

Of the thirty-one factory stores opened in the U.S. three were established in present day Arkansas (Magnaghi 1978, Morris 1969, Nassaney 2015, Peake 1954). These factories were: Arkansas Post, Spadre Bayou, and Sulphur Fork. The Sulphur Fork factory was established in 1817, near the end of the Indian Factory System period. Sulphur Fork was opened to replace an earlier factory, Natchitoches, which was located in present

day Louisiana. Captain John Fowler was the factor of Natchitoches, and when the decision was made to relocate the factory, it was Fowler who chose the new location. The Sulphur Fork Factory was located at the confluence of the Sulphur River and the Red River in southwest Arkansas in what is today, Miller County. This location was a strategic choice as it was situated close to a number of native communities, including Caddo settlements and also in the vicinity of the Spanish Texas border. The Sulphur Fork factory complex was made up of five buildings. It was home to Fowler, a clerk, and a gunsmith, and at any given time housed between nine and twelve members of the U.S. military.

As a trading post the Sulphur Fork factory was only mildly successful. Despite Fowler's diligent efforts business was slow, and the relationship with the military presence was strained and unproductive. Fowler ultimately left Sulphur Fork due to the deteriorating relationship with the military and his poor health. Fowler was replaced by William McClellan, who remained factor at Sulphur Fork until the entire factory system was shut down in 1822 (Magnaghi 1978, Peake 1954). Though the factory system was closed by Congress, George Gray, a licensed trader, was given permission to remain at Sulphur Fork and continue trading. Gray stayed on for three years and eventually left in 1825. Gray's three-year stint is the last documented occupation of Sulphur Fork.

Sulphur Fork factory and its whereabouts were lost and all but forgotten for more than 150 years. The factory's location remained a mystery until an avocational archaeologist, Claude McCrocklin, took up the search in 1988. McCrocklin relied primarily on John Fowler's historic description to track down a possible location for the

site in southwest Arkansas. After much research and on the ground searching, McCrocklin narrowed down a possible site location on a ridge overlooking the confluence of the Sulphur and Red Rivers. With the assistance of Dr. Frank Schambach of the Arkansas Archeological Survey at Southern Arkansas University, McCrocklin went to the possible site location to survey the area. During this initial survey both European and native ceramics were observed on the side of an eroding slope. It was clear there was an archaeological site, and the site was subsequently registered with the Arkansas Archeological Survey and given the site identification number 3MI266. McCrocklin declared the search for the Sulphur Fork Factory over, though much more investigation and study were needed to confirm this claim. Ultimately, an excavation was completed in the summer of 1988 by the Arkansas Archeological Survey and volunteers from the Kadohadacho Chapter of the Arkansas Archeological Society. McCrocklin wrote a brief paper about the excavation that was published in the *Arkansas Archeologist* in 1990. In 1991, McCrocklin wrote a report that described the search for the Sulphur Fork Factory as well as the excavations that took place at two excavation areas at the site.

Combining the historical narrative with archaeological analysis allows for a richer understanding of place as well as a nuanced understanding of the people who lived there – including specific questions of when and how they lived. This thesis combines history, past archeological documentation, and the first in depth analysis of the artifact assemblage from site 3MI266 in order to add more depth and color to our understanding of the Sulphur Fork Factory. In particular, this thesis sets off to: (i) confirm that site 3MI266 is, in fact, the Sulphur Fork Factory, (ii) determine how many

occupations may have occurred at the site, for how long, and during what time period, and (iii) determine the use(s) of the two excavated areas and how they might be related. The summary of that effort is introduced below and discussed in detail in the subsequent chapters.

Chapter Two of this thesis provides a review of historical foundations and theoretical constructs for reviewing site 3MI266. The North American fur trade is briefly discussed in order to give context on how, when, and where the United States Factory System fits into the larger North American fur trade narrative. The various theoretical paradigms used to interpret the fur trade over time are also briefly described. These include approaches such as evolutionary theory, Marxist approaches, world systems theory, and postcolonial theory. A general history of the United States Factory System is provided to orient the reader to the policy, place, and time of the Sulphur Fork Factory. And finally, the known or recorded Sulphur Fork Factory is discussed in depth.

Chapter Three examines the archaeology that took place at site 3MI266. This examination includes a description of how McCrocklin located site 3MI266, and an explanation of the site survey that led to 3MI266 being registered as an archaeological site. During the excavation the site was divided into two distinct areas. These areas as well as excavation techniques are described. A map of the site showing the two areas and excavated units is also provided. It is important to note here that documentation of the excavations of 3MI266 is limited. The only available documentation of the site excavations are McCrocklin's brief summary and report and Dr. Schambach's personal notes.

Chapter Four describes the methodology used for analysis, provides a discussion of the results, offers a comparison with a contemporaneous site at Arkansas Post, and concludes with possible interpretations of the findings. The artifact assemblage from the 1988 excavations of site 3MI266 was not formally analyzed until the writing of this thesis. Therefore, the artifact assemblage is discussed in depth. The artifact types present at 3MI266 are native and European ceramics, glass, metal, chipped stone, and other artifacts such as faunal remains. This thesis relies heavily on European ceramics, the most numerous type of artifact in the assemblage, in order to identify a possible site chronology. The methods and analysis of 3MI266 are straightforward and rely on artifact distribution maps and European ceramic chronology to answer questions concerning number and length of occupations, distribution of artifacts, and possible building uses. The methods section details how the artifacts were classified and why. Application of the described methods allows for a detailed analysis of each artifact class, which, in turn, allowed the chronology for the site to be identified, deciphered, and documented.

Chapter Five concludes and closes this thesis. The conclusion restates the broad outlines of the thesis and its findings. And it explores the extent to which the described research successfully achieved the overall research objectives. The historical significance of site 3MI266 is discussed and, importantly, possible future research is described.

In summation, this thesis provides a comprehensive historical background of the Sulphur Fork Factory, an examination of the archaeological work completed at site 3MI266, and a discussion of the methods and analysis of the 3MI266 artifact

assemblage. The purpose of which is to establish site 3MI266 as the Sulphur Fork Factory, define a chronology to ascertain the site's occupation period, and, finally, to decipher the usage of the two areas excavated. This thesis will show that site 3MI266 is likely the location of the Sulphur Fork Factory and that there were multiple occupations of the site spanning almost a century. The two areas excavated were interpreted as a guardhouse and a cookhouse by Claude McCrocklin. There is not sufficient evidence to support this assertion and more research is required in order to make a determination.

This thesis provides answers to the research questions, but more work is required at 3MI266. The site is important not just to Arkansas history but also to the history of the United States and its involvement in the fur trade system, which makes it relevant globally because the fur trade was a worldwide phenomenon that caused conflict and disruptions for colonizers and the colonized.

Chapter 2

Historical and Theoretical Background

Introduction

This chapter charts the origins of the United States Indian Factory System. The discussion starts with a look at the North American Fur Trade, more generally, and the theoretical frameworks archaeologists use to study it. The chapter concludes with a detailed historical review of the Sulphur Fork Factory.

The United States Indian Factory System was created by an act of Congress in 1795 with the stated purpose of improving white and Native American relations and removing foreign competitors from the newly founded nation (Nicholas 2016; Nassaney 2015; Peake 1954). In order to put the United States Indian Factory System in full and proper context, however, some general background of the fur trade going back to the colonial era is needed.

The Fur Trade

An international phenomenon, the fur trade had a deep and rich history in Europe before it reached the North American continent (Wolf 2010:158-159). Scandinavians received gold and silver from ancient Rome for furs, along with other items deemed valuable such as amber, sea ivory, and enslaved peoples (Wolf 2010:158). The European quest for wealth was centered around gold, silver, sugar, spices, enslaved peoples, and furs (Wolf 2010:158). This drive for wealth culminated with the North American fur trade; a period Eric Wolf (2010:158) called “one of the most dramatic episodes in the history of European mercantile expansion.” Begun in the seventeenth

century, a defining feature of the North American fur trade was its rapid movement west (Wolf 2010:161). As pelt bearing populations like the beaver diminished in eastern North America, the hunt for furs moved inland. Ultimately, the westward march left behind some groups of indigenous peoples, while simultaneously pulling new native communities into the system.

The fur trade left an indelible mark on the lives of Native American peoples. Native Americans had used furs, skins, and pelts for their own use over millennia, well ahead of Europe's interest in North American furs. Overconsumption in Europe led to declines in fur bearing animals on the continent. When European furs could no longer satisfy the global market, the European trade expanded into North America (Wolf 2010:158-194; also see Nassaney 2015). The Dutch West Indies Company was the first European power to bridge the gap between Europe and North America (Wolf 2010:159). The North American fur trade actually began with fish, not furs. Fishermen began to go ashore during the summer months to dry fish and at this time began trading fish for furs with the local Algonkins (Wolf 2010:160).

Nassaney (2015) argues that Europe's unprecedented demand for North American furs in the beginning of the fifteenth century increased exploration, colonialism, imperial conflicts, and eventually supported the concept of manifest destiny. In fact, it is difficult to identify any North American historical event not touched by the fur trade. Historian Harold Innis (1962:178-179) discussed the broad political significance of the fur trade and attributed major confrontations such as the American Revolution and the Seven Years' War to the struggle between settlers and fur traders

(also see Nassaney 2015). Conflagrations erupted as the French and English moved west for continued commercial access to fur resources. Americans, in turn, grew strongly opposed to the British fur trade as it threatened the nation's notion of manifest destiny (Nassaney 2015). The most pervasive and lasting impacts of the fur trade, however, were the manifest impacts on the day-to-day lives of native and settler alike.

The fur trade was as diverse as it was complex. Beyond the mere trade of furs for goods, the fur trade promoted an exchange of ideas, languages, worldviews, technologies, and diseases (Nassaney 2015). Even genes were exchanged as European settlers married into native communities in order to obtain access to furs (Nassaney 2015; Lightfoot 1995). In reality there were many fur trades, and the dynamic relationships created between Europe and Native Americans were not temporally or spatially monolithic. Because the fur trade took place in different geographical regions and during particular moments in history, it requires different models of description (Nassaney 2015). The economic side of the fur trade was just one thread. Ultimately, the fur trade tapestry included strands of service, information, language, loyalties, politics, and most importantly, people.

Fur Trade Theoretical Frameworks

There are a range of factors that influence how we view and understand the world. We observe constantly what takes place around us, and our perceptions continually shift. And, as a result, we modify our behavior and amend our ways of thinking. We are influenced in myriad ways and by a host of things – the current political climate, engrained religious ideology, shifting personal preference, and even trendy

theoretical frameworks. The historical and archaeological study of the fur trade stands out as an example of perceptions shifting over time. In fact, the historical development of archaeological theory can be seen directly in the examination of the fur trade. In this section I discuss some of the theoretical frameworks applied to understand the motivations and actions of those who participated in the fur trade.

As the field of anthropology developed in the nineteenth century, the discipline held an evolutionary orientation (Trigger 2018). This period of anthropology is defined by its linear organization of cultures. Anthropologists judged the culture in question primarily on its technological accomplishment, which, of course, reflected the nineteenth century belief in progress. The theory of acculturation developed to examine the mutual borrowing of cultural traits between interacting cultures (Nassaney 2015). Anthropologists conceived acculturation as a way to explain European culture based on what was then considered racial and technological superiority. From this perspective, European culture was destined to replace indigenous cultures.

By the 1950s, economically oriented anthropologists shifted focus to Marxian approaches (Trigger 2018). This approach highlighted a concern for political economy and focused on how labor was organized and how surplus was mobilized on a global scale. From this, Immanuel Wallerstein (1978, 1979) presented the first coherent approach to world systems theory. World systems theorists seek to explain the factors that led to inequities by identifying the dialectical relationship between core areas or resource accumulation and peripheral areas of resource extraction (Trigger 2018; Nassaney 2015). In the case of the fur trade, primary producers (Native Americans) in

the periphery were induced to hunt and process fur bearing animals that were then transformed into commodities in the core areas of the world, specifically Europe. The periphery provided cheap labor and raw materials that were used to produce high-value goods for the new markets created by fur traders (Nassaney 2015).

This model may explain growth of mercantile capitalism, but does not account for the diversity of responses at the periphery. It also denies agency to native producers' actions of self-expression, adaptation, and resistance. World systems theorists assume Native Americans abandoned traditional methods and lifeways and, in turn, adopted European goods to use in ways intended by their European makers. These assumptions fail to address the complexity of the human experience on the periphery and favors the perspective of the core. It also fails to explain adaptations made by European settlers, who adopted native lifestyle techniques in order to survive in what was often a harsh new environment.

Postcolonial theory explains the processes of colonialism from the perspectives of the colonized. It recognizes and acknowledges that native peoples not only resisted domination, but also actively continued traditional patterns and lifeways (Carlson 2006:204; Lightfoot et al 2003; Nassaney 2015). A postcolonial perspective allows archeologists to perceive fur trade interactions as much more varied and compels them to view identity as fluid rather than static. Because theoretical frameworks have become more inclusive, the study of the fur trade now reflects new theoretical and practical concerns.

Magdalena Naum (2010) argues that postcolonial theory could provide a new angle to look at and understand frontiers and borderlands. Naum (2010) states that postcolonial theories offer a “conceptual toolbox” to distinguish cultural processes from their backgrounds, and to describe the diversity we see in “inter-human and human-object interactions in the borderlands.” Much of the fur trade occurred on frontiers and borderlands. Generally speaking, borderlands and frontiers can seem like ambiguous landscapes, however Kent Lightfoot and Antoinette Martinez (1995) argue that frontiers and borderlands should be seen as landscapes of interactions, “in which cross-cutting, segmentary groups can be defined and recombined at different spatial and temporal scales of analysis.” In this sense, the fur trade can and should be evaluated, and where possible interpreted, from a postcolonial borderland and frontier theoretical lens.

The United States Indian Factory System

As previously noted, the United States Indian Factory System was created by an Act of Congress in 1795. An experiment in public enterprise, the factories, or trade houses, purchased Native Americans’ furs, skins, and pelts, as well as other native produced wares at low prices. In turn, the factors sold Native American goods at a lower price than those charged by private fur traders (Nichols 2016; Magnaghi 1978; Morris 1969; Peake 1954). The factory system was put in place to accomplish several goals. First, the stated purpose of the factories was to establish friendly relations with Native American communities (Nichols 2016; Magnaghi 1978; Morris 1969; Peake 1954). Second, the founders of the factory system, namely George Washington, wanted the factories to create unbreakable economic bonds between the United States and the

Indian nations (Nichols 2016; Magnaghi 1978; Morris 1969; Peake 1954). Third, the U.S. wanted to drive British traders out of business (Nichols 2016; Magnaghi 1978; Morris 1969; Peake 1954).

These objectives were to be achieved by making Native American peoples dependent on U.S. government trade goods, and by teaching them European agricultural techniques. Scheming toward good relations with and domestication of the Native American peoples included inherent ideas of disarming the well-armed Native men that went to work supplying the European demands for North American furs. In a letter to Col Matthew Lyon at the Spadre Bluffs factory, Superintendent of Indian Trade Thomas L. McKenney stated "...I am pleased at the thought of encouraging the Indians in the culture of cotton. It is a branch of the great scheme of civilization. It is just as well to receive cotton as any other commodity from them that can be disposed of as to receive furs and peltries. Their accommodation is the object – and their improvement in every way desirable." (Peake 1954:134).

Planners believed that if the Indians were "civilized" they would be less formidable opponents and present fewer obstructions to the U.S. government's westward expansion. In 1803, Thomas Jefferson wrote to the Governor of the Indiana Territory and expressed the aforementioned objectives – "...at our trading houses we mean to sell so low as merely to repay us cost and charges so as neither to lessen or enlarge our capital; this is what private traders cannot do, for they must gain, they will consequently retire from competition." (Morris 1969). It is clear from these statements that the U.S. government's involvement in the fur trade had very little to do with the

actual commerce and much more to do with manipulating Native American communities to abandon their traditional lifeways and drive out foreign traders. In so doing, policy makers thought Native Americans, and their foreign partners, would become less of an obstacle to U.S. expansion farther west.

The idea of the factory system grew from an “Indian civilization” policy that has been called “expansion with honor”; although Nichols (2016) noted it more closely resembled “conquest on the cheap”. After the Revolutionary War, Americans began to view the 150,000 Native Americans living between the Appalachian Mountains and the Mississippi River as problems and not people (Nichols 2016, Magnaghi 1978). The native ancestral lands were coveted by the Americans, and they wanted the inhabitants removed so they might make “better” use of the land. Military conquest was the most direct path, but it was also the most expensive option (Morris 1969). Especially considering the value that indigenous peoples placed on their autonomy and their lands. The colonial predecessors of the American expansionists had already devised “nonviolent” methods of making Indians into clients and procuring native lands. One method was diplomacy and the other was trade (Nichols 2016). Both were a slow process, but certainly less costly than another war.

From the Native American perspective, diplomacy and trade were one in the same. Indian communities viewed commerce not only for material advantage, but also establishment of a bond of mutual obligation between two peoples (Nichols 2016). From this perspective trade was observed primarily as a social and political act demonstrating reciprocity and good intentions (Nichols 2016). It makes sense,

therefore, that we find in historical records the Native Americans beginning trade missions with ceremonies that involved pipe smoking, feasting, oratory and gift exchanges as acts of diplomacy. The native peoples brought their view of trade and diplomacy to the U.S. government trading houses, moving the factories from business establishments to embassies (Nichols 2016; Morris 1969). The factory stores were visited by hundreds of Native Americans in order to receive the factor's hospitality and to discuss political events in their towns (Nichols 2016).

Americans, in contrast, believed trade and diplomacy were not one and the same, but instead complemented one another. Early American political leaders agreed with Enlightenment thinkers who developed commercial ideology that "held free and unfettered trade between nations would refine people's manners, diminish their prejudices and lessen the probability of war." (George Washington quoted in Nichols 2016). George Washington believed the employment of agriculture and commerce would have "humanizing" benefits on participants and thereby "supersede the waste of war and rage of conquest" (George Washington quoted in Nichols 2016). American trade was, however, an imperial enterprise and American leaders acknowledged quietly that economic influence often preceded political domination (Nichols 2016).

The U.S. government established thirty-one trading posts while the factory system was in existence (Nichols 2016, Peake 1954, Magnaghi 1978, Morris 1969). Facilities were spread from Fort Wilkinson in Georgia to Mackinac Island in the northern Great Lakes to Fort Osage on the Missouri River (Morris 1969). The majority of factories were located along the Mississippi and its western tributaries. Because the factories

were so spread out and often existed on contested borderlands, competition with private traders presented a real problem. As it turned out, Native American communities often held the most power when dictating where U.S. government located factories. Eager to keep native clientele, the U.S. government would often open and close factories based on the convenience and the preference of Native American communities.

Beginning in 1787, prior to the Indian Factory System, Congress proposed the “Indian Civilization” policy to encourage Native American peoples to assimilate into the mainstream American population (Nichols 2016; Magnaghi 1978). It can be argued, therefore, that the Factory System was an extension of this policy. The U.S. policy makers understood that Native Americans guarded their political and cultural autonomy, but they believed they could undermine that autonomy by promoting what can be called cultural imperialism (Nichols 2016). While the factories encouraged hunting from Native American men, the individual factors also gently nudged the Native Americans toward adoption of more “civilized” pursuits, such as European style farming. The factories sold Native Americans cowbells, cotton cards, and carpentry tools hoping they would trade in their hunting implements for tools more common to European agriculture practices. Likewise, factors paid native women a premium for homespun cloth in the hopes of encouraging them to spin and weave cloth (Nichols 2016; Magnaghi 1978). The Superintendent of Indian Trade, Thomas L. McKenney, even went so far as to direct factors to establish model farms at their trading houses in order to demonstrate European agricultural techniques to their Indian customers (Morris 1969).

In this light, the factories are seen as both imperial and local institutions. And it further demonstrates that the Indian Factory System was not about the fur trade at all but an effort to assimilate native peoples to a Euro-American lifestyle.

Thanks to continued Congressional support, the Indian Factory System managed to stay open until 1822 when Congress voted formally to close the factories and liquidate their stock. The system lasted more than twenty-five years and survived the embargo of 1807-1809 and the War of 1812, but it could not survive the influence that private fur trade companies wielded in Congress. Senator Thomas Hart Benton of Missouri was a fierce adversary of the factory system. He maintained strong ties with private traders based in St. Louis. After one particularly vitriolic speech by Benton, the Senate voted 17-11 to immediately close the trading houses (Nichols 2016; Magnaghi 1978; Morris 1969).

The Sulphur Fork Factory

Three factory stores were established in what later became the state of Arkansas: Arkansas Post (1805-1810), Spadre Bayou, also called Spadre Bluffs, (1817-1822), and Sulphur Fork (1817-1822). The Arkansas Post was located on the Mississippi Alluvial Plain at the confluence of the Arkansas and White Rivers in southeast Arkansas. The Spadre Bayou factory was situated in the Arkansas River Valley of west central Arkansas. And the Sulphur Fork Factory was established in southwest Arkansas at the confluence of the Sulphur Fork and Red Rivers.

The U.S. government established the as a late addition to the factory system Sulphur Fork Factory for two primary reasons. First, the location was ideally suited for

efficiency because there were several Native American communities living along and within the Red River Valley. Second, the Sulphur Fork Factory could operate as a check on Spanish influence in nearby Texas (Magnaghi 1978; McCrocklin 1990).

The predecessor of the Sulphur Fork Factory was the Natchitoches Factory in present day Louisiana, which became part of the factory system in 1805. Natchitoches had a much longer history as a trading post prior to American involvement. French colonists founded a post at Natchitoches in the early eighteenth century and began trading with the Caddo people upon arrival (Magnaghi 1978; Pavo-Zuckerman and DiPalol 2012; Perttula 1994). Therefore, the Caddo people, as well as other native groups, had a long history of trade with Europeans prior to America establishing its own trading post (Perttula 1994). This history of trading with the French brought about certain expectations from Native Americans when dealing with Americans. For example, the French presented native communities with gifts, something the U.S. government was reluctant to do, making the jobs of factors more difficult.

Captain John Fowler was appointed as factor at the Natchitoches factory in 1816 (Magnaghi 1978). Soon after Fowler arrived at the Natchitoches factory, he recommended the move to Sulphur Fork. Fowler had several reasons for recommending the move. There was a dispute with the Catholic Church over who owned the land at the Natchitoches site. Additionally, few Native American groups wanted to trade at Natchitoches due to the presence of hostile settlers.

John Fowler was given authorization to identify a place to site the new factory (Peake 1954). He made an expedition up the Red River to locate a suitable location for

the new United States trading house (Peake 1954). Fowler selected the Sulphur Fork site at the confluence of the Sulphur Fork and Red Rivers in present day Miller County in southwest Arkansas (Peake 1954). The Sulphur Fork Factory location was within one-hundred miles of many Native American groups, including: the native Caddo and the displaced Cherokee, Alabama, Choctaw, Coushatta, Delaware, Pascagoula, and Shawnee. And, due to the abundance of game in the surrounding region, many more native peoples traveled to the area for the excellent hunting (Peake 1954). Fowler also noted about 130 white families living in the area. The factory's goods and its commercial opportunities were available to settled families as well as Native American groups (Magnaghi 1978). With the military presence that usually accompanied factory stores, Fowler hoped to protect those living around the factory from illegal traders.

John Fowler left extensive historical records regarding Sulphur Fork. He provided a detailed description of the buildings and what happened in and around Sulphur Fork during his time as factor. The new factory was comprised of five buildings and officially opened in the summer of 1818. On May 4, 1819, the buildings were described as follows (quoted in Peake 1954):

Store, Dwelling and Gallery: Two stories high 19 by 39 ft. of pine logs hewed on four sides and pointed shingle roof. 1st and 2nd floor laid with plank. A store and lumber room on the first floor. The second story (the dwelling) I occupy but it is not finished – suppose it would cost 100 to 125\$ to finish it. The chimney is made of Spanish moss and clay. A Gallery the whole length of the house 9 ft wide covered with pine shingles. The upper floor laid with plank. Some loose plank thrown upon the sleepers for the first floor.

Skin house: two stories high 13 by 18ft – A Frame – weather boarded and covered with shingles – floors laid with plank – 1st story 6 ft – 2nd story 5 ft high – the roof high pitched and no joists above.

A cookhouse in and for Laboureres employed by the factory – 16 by 16 ft – one story high of pine logs hewed on four sides floored with plank. Chimney of cat and clay.

Two cabins built with poles with the bark on – covered with pine boards – dirt floors. These were the first put up – to secure the goods in and for temporary Dwelling. One is now used as a lumber house. The other is a Guard house.

Quickly after opening, Fowler sought out tribal leaders in an effort to establish friendly relations with them. Fowler is one of only two factors documented to have visited tribal leaders, as the factors were prohibited from going among Native American communities (Peake 1954). Fowler obviously ignored this rule because he recorded visits with the Pascagoula, Alabama, Coushatta, and Cherokee. Fowler presented them with gifts of coffee, salt, tobacco, blankets, and shawls (Magnaghi 1978; Morris 1969). Fowler took his diplomatic duties seriously, considering it the most important part of his business and his official duties. Establishing friendly relations with those living in the area was also likely about self-preservation. The factory site was located on the frontier of the United States, bordered Spanish Texas, and had almost no military presence. Under the circumstances, Fowler recognized the Native Americans held most if not all the power.

Along with his diplomatic duties, Fowler wanted to put an end to the activities of illegal traders taking advantage of native groups in the area. Many native communities were angry and frustrated with illegal traders because they routinely cheated them by offering cheap whiskey in exchange for valuable furs. And they increasingly encroached on traditional Native hunting territories. Fowler had difficulty persuading the military authorities to remove illegal traders and hunters from the area. Ultimately, it did not

matter because the traders either returned or were replaced by others. The cycle was a constant headache for Fowler.

Despite Fowler's diligent efforts, business was slow at the Sulphur Fork Factory. One reason for lack of business was related to Fowler's dealings and interactions with Dehahuit, a Caddo chief. Dehahuit claimed all the land on the Red River above Louisiana, and he refused to allow members of the Caddo tribe to conduct business with the Sulphur Fork trading post (Nichols 2016). The prohibition on trade with the Caddo was a major blow considering that Dehahuit governed at least ten large Caddo villages. Despite the setbacks, Fowler continued his efforts to establish Sulphur Fork as a center for legal trade in the area. Fowler received skins, pelts, furs, bear oil, deer tallow, beeswax, and honey from his native customers. And, in return, he traded flour, salt, tobacco, blankets, clothing, guns and ammunition, general hardware, and European manufactured goods.

Fowler's biggest challenge came from his deteriorating relationship with the local military presence. The factory lacked a real defense force. At any given time, there were only 9 to 12 soldiers stationed at Sulphur Fork. Fowler accused the soldiers of theft and drunkenness. At one point Fowler wrote to Superintendent of Indian Trade Thomas L. McKenney about a particularly upsetting incident in which the soldiers cut a hole in the wine cellar roof and stole fifteen gallons of whiskey. Fowler was convinced that the commanding officer was in on the theft and could not persuade him to take any action to right the situation. Shortly thereafter Fowler abandoned his post at Sulphur Fork in protest. Difficulties with soldiers stationed at the factory stores were ubiquitous and

Fowler was not alone in his troubles with the soldiers. In addition to Fowler's rocky relationship with the military his health had also been in decline. Fowler died six months after leaving the Sulphur Factory.

McKenney appointed a new factor, William McClellan, shortly after Fowler's death. Despite the change in leadership and McClellan's new management, Sulphur Fork never became a major trading center. The many obstacles – restrictive chiefs, exclusion from horse trading, and unethical competitors – proved too great for the factory to overcome (Nichols 2016). Sulphur Fork stood too distant and too removed from the commercial influence of the U.S. government. And like all the other factories it simply could not be saved. Congress officially closed the United States Indian Factory System on May 6, 1822, though Sulphur Fork did not officially close its doors until the summer of 1822 (Magnaghi 1978). The factory site then became occupied by George Gray, a licensed trader, until 1825 when he too abandoned the site.

Ora Brooks Peake (1954:218) gives several reasons for the failure of the Indian Factory System. Firstly, the government issued licenses to private traders and therefore did not maintain a monopoly on the U.S. trade system. Perhaps the most important reason for the factory system failure was that the factors were prohibited from doing things private traders could. For example, factors were not allowed to go into Native American communities to trade, they were not allowed to sell liquor, the quality of merchandise was inferior to that of private traders, and factories were limited in that they could only sell furs in the United States market. Furthermore, the United States government prohibited gift giving and the U.S. factories were often more difficult for

the native groups to travel to. The goal was to break even in the trade and neither gain nor lose, but the United States Indian Factory System went into debt. This general goal was not, however, shared by everyone. Some members of Congress were outright opposed to public competition with private fur trading outfits. These fur trading allies in Congress worked continually to undermine the United States Indian Factory System. And they ultimately prevailed.

These are the reasons given for the economic failure of the Indian Factory System. However, I would argue that the main goal of the factory system was to make Native American groups reliant on the United States government and to make the native communities a nonissue as the government sought westward expansion. The United States Indian Factory System in this regard had very little to do with trading furs and more to do with imperial conquest.

Conclusion

This chapter examined the origins of the fur trade in general and the United States Indian Factory system in particular. The genesis of the fur trade stretches back to the sixteenth century and continued until the late nineteenth century. The United States Indian Factory System comprised just a small portion of the North American fur trade system. And the Sulphur Fork Factory an even smaller part because it was only in business from 1817-1822. It is clear from this review that the United States Indian Factory system, including the Sulphur Fork Factory, traded in furs, but, in reality, the factory system played a fairly insignificant role in the fur trade.

The United States Indian Factory System should instead be interpreted as an Indian assimilation policy put in place in order to facilitate an easier westward expansion into the interior of what is now the United States of America. This view finds support in the fact that there was no goal for factories to record any financial gain. But there was a concentrated and consistent effort to make Native American communities dependent on the U.S. government. Even when understood as a policy of assimilation, the factory system was, at best, only marginally successful. And is more properly considered a failure. Native and Indigenous groups were already trading for European goods from other imperial powers, and the United States failed to make Native Americans solely dependent on the U.S. for trade in these goods.

Though the United States government's venture into the fur trade was unsuccessful, it remains an important part of U.S. history because it served as a precursor to the many other assimilation tactics later used against Native Americans, particularly the Indian Boarding School system. The United States Indian Factory System is also very important to the discussion of frontiers and borderlands. Many of the factories were purposely established on frontiers and on or near contested borderlands.

Chapter 3

The Archaeology of Sulphur Fork Factory – 3MI266

Introduction

Archaeological research regarding the North American fur trade is substantial. But when it comes to the fur trade of the southeast region of the United States, and the United States Indian Factory system more particularly, the research remains frustratingly deficient. This chapter examines the archaeology of the Sulphur Fork Factory, one of the few United States government fur trade factory stores excavated in the southeast.

The last known occupation of the Sulphur Fork Factory was in the early nineteenth century. The exact location of the factory remained a mystery until the 1980s when Claude McCrocklin, an avocational archaeologist, set out to find and study it. The only reports of the archaeological excavations come from Claude McCrocklin's 1990 paper *Three Historic Sites on the Red River: The site of the Sulphur Fork Factory, Southwest Arkansas 1817-1822* and his 1991 report *The Site of the Sulphur Fork Factory: Southwest Arkansas 1817-1822*. This chapter summarizes McCrocklin's search for the Sulphur Fork Factory and the subsequent archaeological excavation. This chapter relies exclusively on McCrocklin's account of the survey and excavations that took place, as well as the personal notes of Dr. Frank Schambach.

Site Survey

The last known occupation of the Sulphur Fork Factory was in 1825 when a private trader by the name of George Gray abandoned the site. Gray, a licensed trader,

was not part of the factory system but was granted permission by the U.S. government to trade from Sulphur Fork. In 1988, nearly one-hundred and sixty years after its last known occupation, McCrocklin took an active interest in locating the factory site. With the help of the Arkansas Archeological Survey, McCrocklin began his hunt. Joined by Dr. Schambach and a small team consisting of members of the Kadohadacho Chapter of the Arkansas Archeological Society, McCrocklin set out to survey the lower Sulphur River Basin in what is now Miller County in southwest Arkansas.

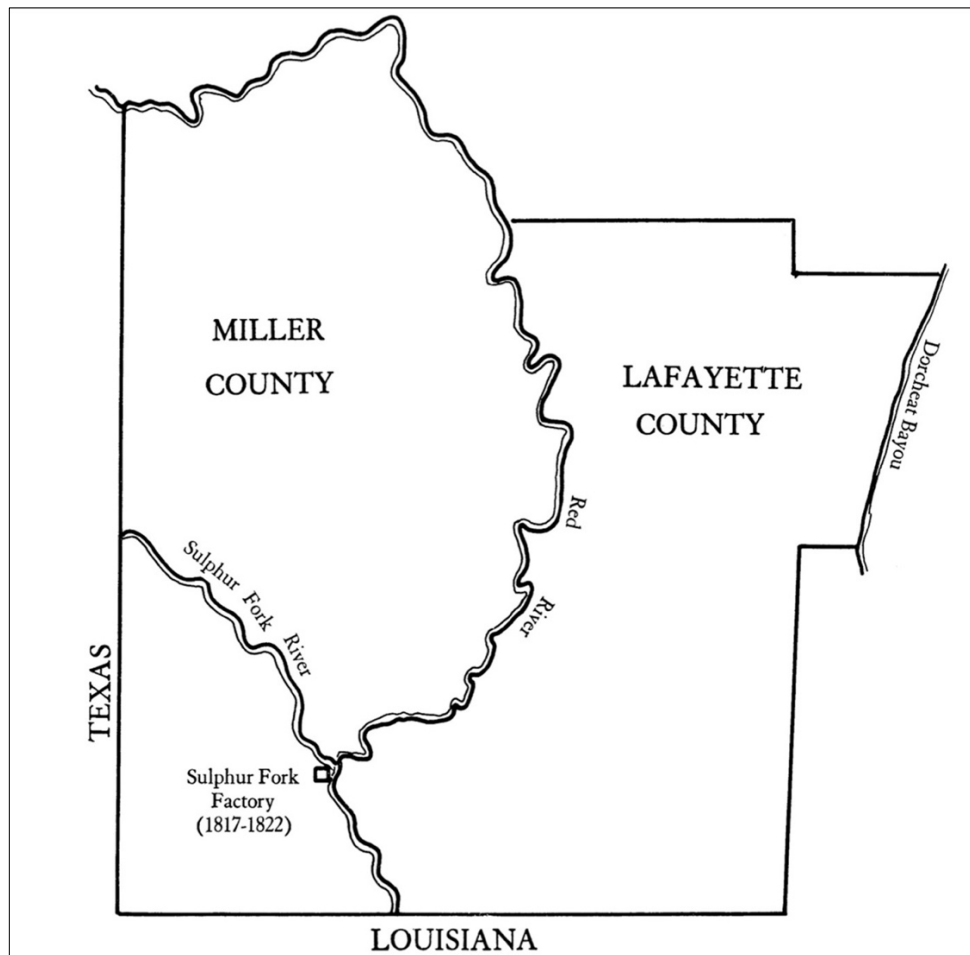


Figure 3.1. Map of the location of Sulphur Fork Factory from Russell Magnaghi 1978.

Acting as field director, McCrocklin took it upon himself to locate the area where the Sulphur Factory once stood. The earliest reports of the Sulphur River and the Red River come from the 1719 journal of French explorer Jean Baptiste B nard de la Harpe and from the letters of Indian trader John Fowler (McCrocklin 1991). Relying on these accounts of the region and an 1841 United States government survey map of the confluence area, McCrocklin believed the Sulphur Fork Factory was located in the lower Sulphur River area.

To begin his search for the factory McCrocklin first made corrections to a 1952 quad map where only the topographic features remained intact. The area had obviously gone through changes over time: roads were changed or gone completely, buildings were torn down and new buildings appeared, once-wooded areas were cleared and previously cleared areas were now heavily wooded. With the help of a then current Miller County highway map and aerial photographs, McCrocklin was able to input additional and updated data, and pinpoint possible Sulphur Fork Factory locations.

McCrocklin first surveyed the bluffs at the mouth of the Sulphur River by boat, hoping to experience what John Fowler had nearly one-hundred and sixty years earlier. John Fowler proposed a site situated thirty miles above a Coushatta village on the west bank of the Red River near the mouth of the Sulphur Fork River (McCrocklin 1991). Fowler also described what he thought was the best location: on a high bluff, a mile long and well-watered, situated just below the junction of the rivers (Magnaghi 1978). From his boat McCrocklin made a detailed study of the bluff line, and then he marked his map with possible locations of the Sulphur Fork Factory. Next, McCrocklin physically

observed the area from the highest vantage point using binoculars to study the possible location site. McCrocklin then made a comparison of the Red River's 1817 channel with John Fowler's description of the terrain using a modern infrared map of the Sulphur and Red River confluence area. From this comparison McCrocklin was able to estimate the distance below the 1817 Sulphur Fork junction with the Red River to the area where John Fowler reported the factory location.

Continuing his investigation, McCrocklin used a telephoto lens to make slides of the terrain. McCrocklin studied the terrain by projecting the slides onto a large screen and found a site matching the description John Fowler made so many years ago. According to John Fowler's description the site could be seen from the Red River channel and was located just below the highest point on the ridge and was near a large spring of good water (Magnaghi 1978, McCrocklin 1991). McCrocklin believed he had located the site on a series of high ridges that form a five-mile-long bluff line west of the Sulphur River, near its junction with the Red River. At this point McCrocklin declared "The search for the Sulphur Factory was over!" (McCrocklin 1990). Obviously, an archaeological investigation would be necessary to confirm such a declaration.

At the time McCrocklin and a small survey team visited the site and found the hills were covered with low brush and grass. Originally, Dr. Frank Schambach believed the area to be owned by the International Paper Company. He sought and was granted approval to test the area. However, it was found out after excavations began that the area was actually owned by the Deltic Farm and Timber Company, Inc., which still owns

the property today. Luckily, those at the Deltic Farm and Timber Co. were delighted to have archaeological work done at the site (Figure 3.2).



Figure 3.2. Aerial view of Site 3MI266.

Once on site the team noticed a slope that had begun to erode, revealing both native ceramic sherds and European ceramic sherds. McCrocklin asserted that the European ceramics dated from the mid-eighteenth century to the 1830s. Uphill on the northwest slope, there was a chimney fall of large flat rocks and daub along with a scatter of historic artifacts in a rich black midden. McCrocklin described the team as “elated” to find the first physical evidence of the Sulphur Fork Factory site (McCrocklin 1990). The team’s excitement, however, was put in check when they discovered a medium sized, ¼ inch mesh screen – a tell-tale sign someone else had found the site before McCrocklin and the team. Upon closer inspection the team discovered that the

site did not show extensive digging, and it appeared the person who had left the screen behind was likely interested in metal objects, presumably found by metal detector (McCrocklin 1990, 1991).

It is not clear from McCrocklin's report or from Schambach's notes how much of the site area was evaluated. The Sulphur Fork Factory was made up of five buildings of varying sizes and undoubtedly required space. Whether the survey only tested the areas of excavation or a larger area is unclear from available documentation. However, McCrocklin did note an area infested with bees that was avoided during excavations. Therefore, more of the site area could have been tested for archaeological remains but it was never stated explicitly.

The midden in what would become Area 1 was tested first to determine its size and depth. The midden averaged 20 cm in depth and contained multiple types of artifacts – European ceramics, native ceramics, bottle glass, faunal bone, charcoal, and ash. At this time McCrocklin and team felt they had sufficient evidence to confirm the archaeological site. They did not complete any other tests. Dr. Frank Schambach of the Arkansas Archeological Survey was notified, and site 3MI266 was officially registered with the Arkansas Archeological Survey.

Perry Plunkett

Before describing the excavations that took place at site 3MI266, it is necessary to provide a little more information on the mystery man who left behind his screen. Two years after excavations at 3MI266 took place, the team learned that the man who left his screen behind was Perry Plunkett of Texarkana, Arkansas. The information Plunkett

provided is vital to understanding the site even though there is no provenience for the artifacts Plunkett obtained.

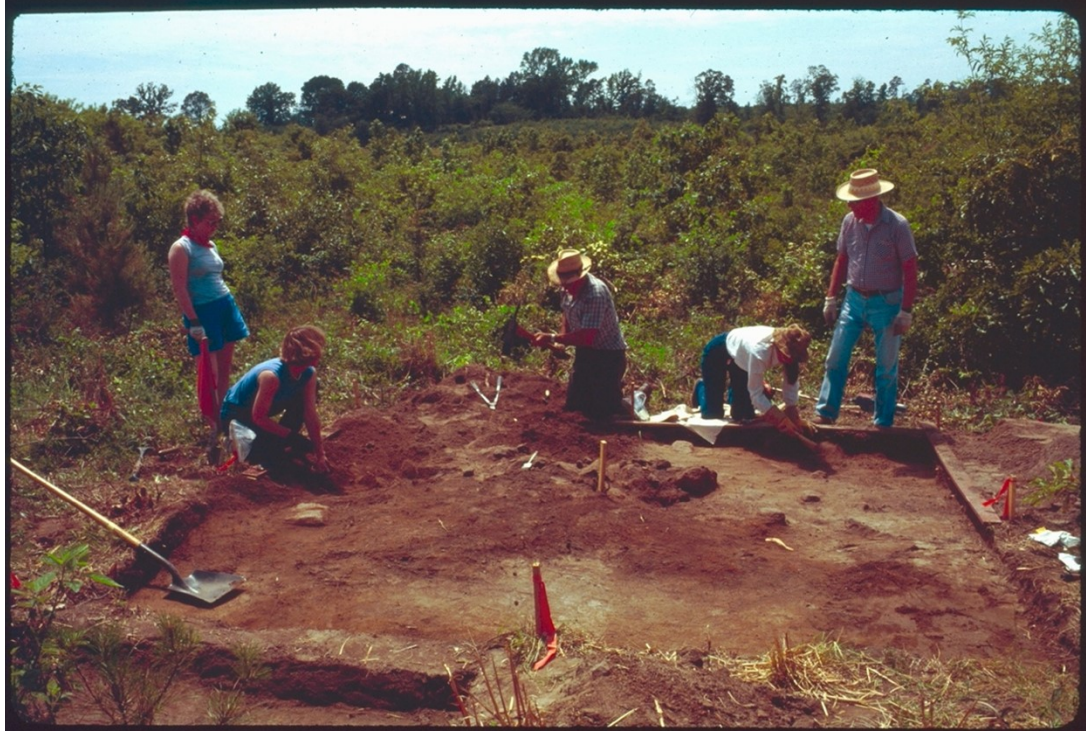


Figure 3.3. Team of volunteers excavating a unit at 3MI266.

Plunkett was interviewed and described what the site looked like two years prior to the survey. According to Plunkett, when he found the site, it was recently bulldozed, revealing artifacts below the surface (McCrocklin 1991). As suspected, Plunkett was most interested in metal objects and had, in fact, utilized a metal detector in his search. A member of the Kadohadacho Chapter of the Arkansas Archeological Society photographed the artifacts Plunkett found at the site. McCrocklin also stated in his writeup of the site that Plunkett left a copy of his field notes, a map of the site marking the areas where he had found artifacts, and a copy of Plunkett's own writeup of the site. McCrocklin found Plunkett's notes and maps valuable when he compared them with his

own notes and site map, allowing him to place the artifacts into the overall site data and artifact inventory.

Unfortunately, Plunkett's notes and maps were not available for review for this thesis. The Plunkett collection remains important, however, because the conclusion that site 3MI266 is the Sulphur Fork Factory was based, in part, on the artifacts Plunkett collected. As with his notes and maps, the Plunkett artifact collection was also not available for study for this thesis. Photographs of the Plunkett collection were available for review.

Test Excavations

Additional evaluation of site 3MI266 was necessary before a full-scale excavation could take place. Accordingly, Dr. Schambach, along with other survey crew members, completed some additional tests in the sheet midden, including an expansion of the original test area. After evaluating newly uncovered artifacts and the exposure of the site, the team agreed the site deserved a full-scale excavation.

Dr. Schambach organized and directed the excavation, while David Jeane acted as chief assistant. The Arkansas Archeological Society provided the workforce. Claude McCrocklin remained greatly involved in the project and authored a brief paper in 1990 and the preliminary report of site 3MI266 in 1991. The paper and report focused on some of the highlights of the excavations. McCrocklin did not attempt to give a full scientific report of the project.

The site measured 1.5 acres and was divided into two areas. The sheet midden on the north slope of the hill was called Area 1 and was considered the main test area.

Area 2 was 25 m south of Area 1 and farther uphill. Area 2 was identified by a pile of rubble from a collapsed chimney, known as a chimney fall, visible on the surface.

Area 1

The team started work on April 16, 1988. Area 1 was covered in thirty 2 x 2-meter test units. Of the thirty units, twenty were excavated (Figure 3.4). The excavation units were troweled in 10-cm levels. The area was not screened. McCrocklin stated in his report that the dirt would not screen, however, in Shambach's personal notes he states that screening was never part of the equation and only mentioned that the area was troweled in 10-cm levels. McCrocklin reported only Feature 1 in Area 1 by provenience. The remainder of the excavation units are only generally described.

Feature 1

Feature 1 measured 110 x 130 cm and was isolated in two units, S2W4 and S0W4. Feature 1 was described as an irregular shape with a depth of 55 cm. The artifacts included bottle glass, European ceramics, flint lock gun springs, square nails, and native ceramics.

General Midden

Despite the lack of screening, a variety of artifacts were found in the rich midden. Items of note consisted of military buttons, flint lock gun locks, French and English gun flints, European ceramics, bottle glass, clay pipe fragments, cast iron kettle fragments, scissors, a thimble, native ceramics, copper and silver bangles, glass beads, carbonized peach seeds, and faunal remains. All of these items are listed in McCrocklin's preliminary report; however, the thimble and copper and silver bangles are not present

in the archaeological assemblage studied for this thesis. The whereabouts of these items is unknown. Artifacts found by Perry Plunkett were also associated with the general midden in Area 1. These artifacts include several military buttons dated from 1812 to 1816, as well as two flint gun locks and one “goose neck” flint lock gun cock. These items do not have provenience as they were collected before scientific excavations began.

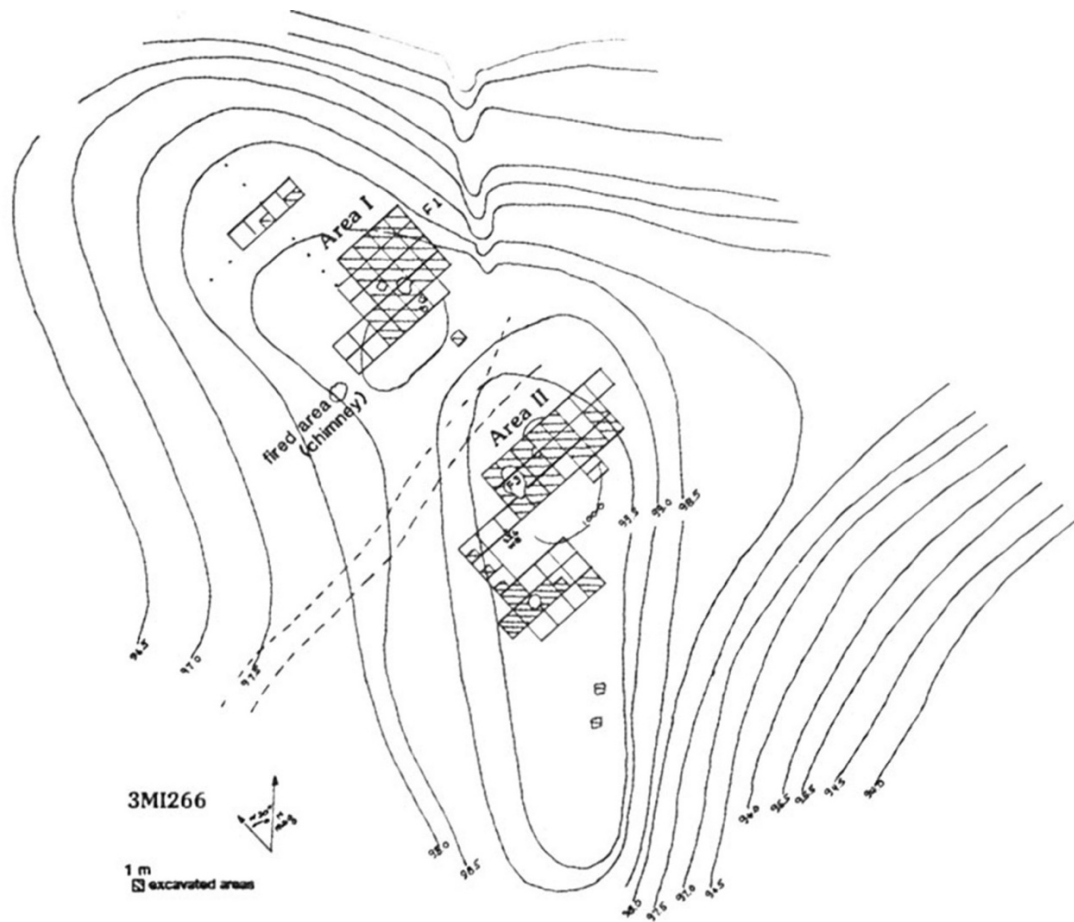


Figure 3.4. Map of excavated units at Site 3MI266.

Area 2

In Area 2 a total of forty-one 2 x 2-meter units were laid out, of which twenty-two units were fully excavated and five units were partially excavated. The team worked in 10-cm levels to a depth of 20 cm. Certain units were screened with handheld screens and rocker screens with ¼ inch mesh. Sample bags of soil were taken from parts of Area 2 in order to be watered screened. The report states that the soil in Area 2 was sandy.

In the northeast corner of S24W8 a brass knuckle guard, pieces of iron, and a musket ball were also found. According to McCrocklin, Plunkett also found a number of military artifacts in the same general area. Plunkett also noted two ornate thin brass rosettes, several military buttons, musket balls, and various military accoutrements. McCrocklin stated that the military material, including the gun flints found in or around Feature 3, indicates strongly that Area 2 included a soldiers' guard house or quarters.



Figure 3.5. Northeast corner of S24W8 showing brass knuckle guard piece.

Other artifacts found in Area 2 were the bowl of a tomahawk pipe, parts of clay pipes, a large 14 cm iron key, tin cans, nails, copper strips, and a scatter of European ceramics. A Dalton projectile point was also found in Area 2, which, according to McCrocklin, was used as a strike-a-lite. Further inspection by several research archaeologists at the Oklahoma Archeological Survey shows no evidence that the point was used as a strike-a-lite. The botanical and faunal remains in Area 2 consisted of carbonized peach seeds and some faunal remains.

Feature 3

Feature 3 is located in Area 2 and includes the rock and daub chimney fall which was the focal point of the Area 2 excavations. In order to test the chimney fall, a “T” shaped trench was laid out to cover the fall and part of a possible house floor.



Figure 3.6. Feature 3 showing a chimney fall.

The layout included section S22W8 running north and south, and sections S22W6, S22W4, and S22W2 running east and west. A total of four 2-meter squares were excavated. The team confirmed a rock and daub chimney fall. McCrocklin described how the chimney was constructed, noting that some of the flat rocks present in the area were worked in order to fit the shape of the chimney as well as a square nail concentration in and around the rocks.

Summary of McCrocklin's Survey

McCrocklin definitively states in his preliminary report that site 3MI266 is the Sulphur Fork Factory. The artifacts unearthed from the test excavations and the artifacts found by Perry Plunkett are consistent with the time period and the suggested activities associated with Sulphur Fork Factory. McCrocklin concluded that the team had found what was interpreted as a cookhouse in Area 1 and part of a guard house in Area 2. It is clear two distinct areas were excavated. But the usage of the two areas is less clear. Of note, McCrocklin did not believe the team had located the main two-story building or the fur storage building. While McCrocklin was certain that the team had located and excavated part of the Sulphur Fork Factory complex, Dr. Frank Schambach expressed doubts in his personal notes. However, Schambach eventually stated that he believed the site to be the Sulphur Fork Factory after viewing the Plunkett collection.

McCrocklin, being unsatisfied with the 1988 excavation, returned to the site in February of 1989 to further test Area 1. This time he focused on the east and north sections. Within the newly tested east section McCrocklin uncovered a chimney fall and fire area. McCrocklin proceeded to test small 60 cm squares along this line and found

nails as well as 2-mm thick window glass and more European ceramics. McCrocklin believed this to be the main building. It is important to note that the artifacts McCrocklin collected in February of 1989 were not available for study for this thesis. This area was originally not tested in 1988 due to a bee infestation that forced the team to work elsewhere.



Figure 3.7. Sign warning crew of underground beehive.

Discussion

Based on historical documents left by John Fowler, the Sulphur Fork Factory was comprised of five buildings: the store house, skin house, cookhouse, and two cabins used for military personal and storage (Peake 1954; Magnaghi 1978). It is clear from the excavations at 3MI266 that there are at least two separate buildings at the site. It is not clear how these buildings were utilized. McCrocklin believed the buildings to be a cookhouse and a guard house but does not give reasons for these assertions. Therefore,

the building uses are difficult to confirm based on the available evidence in McCrocklin's report. Moreover, while there are historic records of the number of buildings and how they were constructed, there is no record documenting how the buildings were organized and situated within the Sulphur Fork Factory complex.

We expect to locate and identify military artifacts, such as military buttons and ammunitions, because there is a historically documented military presence at the factory. We also expect to see evidence of guns and ammunition because these goods were of primary interest to the Native American clientele and were certainly used by the military. These items were present and documented at site 3MI266. Records for the factory note also that pipes were common factory store items, specifically the tomahawk pipes (Peake 1954). As noted in historical records pipe smoking was common practice among visiting Native Americans and the factors who managed the factory stores, and the pipes were popular trade items. Here again, clay pipes and a tomahawk pipe bowl were uncovered and documented at 3MI266. Many of the other common items sold at the factory store would have deteriorated overtime; however, metal items such as thimbles, sewing needles, scissors, jewelry, kettles, and knives should still be present at the site. Some of these items were reportedly found at 3MI266, but these items cannot be considered as evidence of how individual buildings were used because they are associated with the Perry Plunkett collection and have no provenience attached or are missing altogether.

When we view the artifacts and information collected as a whole it seems likely that European and Native America groups met and gathered at site 3MI266 which is

almost most certainly the Sulphur Fork Factory. It is less clear what buildings the excavations actually uncovered and how the site was organized. How were these buildings organized, how exactly were the buildings used, and how many occupations took place at the site after the Sulphur Fork Factory was abandoned as a trading post are questions requiring still further investigation.

Chapter 4

Methods, Analysis, Results, and Discussion

Introduction

Site 3MI266 was excavated in 1988 by the Arkansas Archeological Survey and volunteers from the Kadohadacho Chapter of the Arkansas Archeological Society Based in Magnolia, Arkansas. The purpose of the excavation was to investigate the site and identify it as the Sulphur Fork Factory (1817-1822). Site 3MI266 is located in Miller County in southwest Arkansas along the confluence of the Sulphur Fork and Red Rivers. This site has been interpreted as the Sulphur Fork Factory; a trading post that was part of the larger United States Indian Factory System established in 1795. Based on historical documents the Sulphur Fork Factory complex was made up of five distinct buildings and has a documented occupation period between 1817 and 1825 (Peake 1954).

A great deal of time and effort went into locating site 3MI266, as was detailed in chapter three of this thesis. The site is located on a timber farm currently owned by Deltic Farm and Timber Co, Inc. and had been bulldozed a few years prior to the archaeological excavation to prepare the ground for planting. At the time of the bulldozing activities the site was discovered by a local collector, Perry Plunkett, who used a metal detector to collect artifacts. Once the Arkansas Archeological Survey became involved and official excavations began, the site was defined by two areas: Area 1 and Area 2. These two areas were interpreted as a cookhouse and a guard house by advocational archaeologist Claud McCrocklin who was part of the excavation team.

The collected artifacts from this investigation were washed and bagged according to accession number and placed in storage at Southern Arkansas University (SAU) in Magnolia, Arkansas. No formal analysis of this artifact assemblage has been attempted until the writing of this thesis. Claude McCrocklin wrote a brief paper summarizing the excavations (1990) and authored a report for the Arkansas Archeological Survey (1991), in which he gave a brief description of the survey and excavation that took place as well as a list of artifacts found. The personal notes of Dr. Frank Schambach, a station archaeologist for the Arkansas Archeological Survey located at SAU, were also utilized in the writing of this thesis. Schambach oversaw the 3MI266 excavations.

The purpose of this thesis is to: (i) confirm that site 3MI266 is, in fact, the Sulphur Fork Factory, (ii) determine how many occupations may have occurred at the site and over what period, and (iii) determine the use of the two areas excavated and how the areas might be related. This chapter will provide a description of the methods of analysis, analysis of artifacts, results of analysis, and a discussion of the results. A brief comparison between site 3MI266 and Arkansas Post site 3AR47 is also included in this chapter.

Methods of Analysis

The artifacts from site 3MI266 were placed in my care by Dr. Carl Drexler of the Arkansas Archeological Survey and current station archaeologist at Southern Arkansas University (SAU), and initially housed at the Oklahoma Archeological Survey in Norman, Oklahoma until August 2021. Subsequently, the artifacts were moved to the Arkansas

Archeological Survey at Toltec Archeological Station in Scott, Arkansas and will remain there until this thesis is completed and then be returned to SAU.

Table 4.1 Total Artifact Counts from Site 3MI266

Category	Count	Percentage of Assemblage	Weight
Ceramics	1450	41.63%	3850.4
Glass	385	11.05%	1166.5
Metal	1040	29.86%	4538.9
Other Artifacts	535	15.36%	2493.4
Chipped Stone	73	2.10%	551.9
Total	3483	100.00%	12601.1

The artifacts arrived in the following manner: two, three-gallon Rubbermaid totes; one, ten-gallon tote; and one cardboard flat box. The artifacts were initially re-bagged by accession number due to the deteriorating state of the original artifact bags. The new bags, furnished by the Oklahoma Archeological Survey, are curation grade 4 mil thickness polyethylene, with zip tops, in varying sizes.

A total of 3,483 artifacts were analyzed for this thesis; this number does not include the Plunkett collection. Two-hundred and three of the artifacts are not included in the analysis due to lack of provenience. Analysis began in September of 2021 after a delay due to the Covid 19 pandemic, and was overseen by Dr. Amanda Regnier, Director of the Oklahoma Archeological Survey. I analyzed the artifacts in order of accession number, and all the artifacts were sorted based on artifact type: ceramic, metal, glass, other artifacts, and chipped stone (See Table 4.1). All artifacts were counted by hand and weighed on a digital scale in grams. Diagnostic artifacts and artifacts of note were

given a specimen number and bagged separately. In addition, all artifacts were coded in Microsoft Excel spreadsheets by accession number and sorted by artifact material – ceramic, glass, metal, other artifacts, and chipped stone.

This chapter is organized by sections. The first section describes the methods of analysis of each artifact type, as well as the Perry Plunkett Collection. The following section is an in-depth analysis of each artifact type and a breakdown of artifacts by the area where it was found on the site. Included in this chapter is a brief, high-level comparison between Arkansas Post site 3AR47 and site 3MI266. The final section is a discussion of the artifact analysis and attempts to apply a narrative to site 3MI266.

Ceramic Methods of Analysis

A total of 1,450 ceramics were analyzed for this thesis. That is a total of 41.63 percent of the total artifact assemblage, making ceramics the most numerous artifact type recovered from site 3MI266. All ceramics were weighed and counted and then sorted by ware type. It is important to note here that a majority of the ceramics were highly fragmented and, therefore, some analysis categories could not be determined.

Native ceramics were grouped by temper. Tempers included grog, shell-grog, bone, and sand. All native ceramics are undecorated body vessel portions save one which is a rim. European ceramics were initially sorted by ware types. Ware types include refined earthenwares, such as whiteware, pearlware, and creamware, and stoneware. Refined earthenwares, such as whiteware, were the most common ceramic type. Once ware type was identified the ceramics were further broken down by decoration and glaze, decorative field, color, vessel form, vessel portion, and date range.

Ceramic decoration was divided into eight categories. These categories include undecorated, transfer print, edge ware, dipped, salt glaze, lead glaze, and engine turned. Some ceramics have more than one decorative category. The ceramics that were undecorated were sorted by ware types – creamware, pearlware, whiteware, or stoneware. Ceramic sherds with similar decoration, color, and/or motif were grouped together. However, as mentioned above, most sherds were quite small and decorative motif was difficult to determine in most cases. Ceramics with similar colors – dark blue, medium blue, light blue, black, brown, red, etc. – were grouped together. And finally, decorative fields were sorted based on where the decoration was located on the sherd – interior, exterior, or both. Vessel form was indeterminable in most cases and, because of this, it is not considered in the overall analysis of the ceramic artifacts.

Locations of the ceramic sherds were also entered into the database. Location information was collected as horizontal and vertical location and an area or feature was assigned based on this data. All ceramics were assigned a date range based on ware type, decoration, and color(s). Undecorated ceramics were not assigned a date range. To summarize ceramics were organized by location, quantity, weight, ware type, decoration or glaze, decorative field, color, vessel form, and date range.

Glass Methods of Analysis

A total of 385 glass artifacts were analyzed and represent 11.05 percent of the total artifact assemblage. All glass was counted and weighed, and then sorted by color, basic type, container type, vessel portion, finish style, finish method, manufacture method, bottle shape, and date range. Much of the glass was highly fragmented and not

all fields could be determined. A majority of the glass was container glass and consisted of mostly bottle glass. Notably, however, there are twenty-six glass beads in the artifact assemblage, most of which are seed beads. This number may not accurately reflect the number of beads present at the site as beads are very small and difficult to see when troweling and would not be caught when screening. Therefore, this number may not accurately reflect the number of beads at 3MI266

Metal Methods of Analysis

Metal artifacts made up the second most numerous type of artifact in the 3MI266 assemblage. A total of 1,040 metal artifacts were analyzed, representing 29.86 percent of the total assemblage. The metal artifacts were sorted based on metal type: ferrous, lead, brass, copper, iron, and pewter. The metal artifacts were then separated into categories: hardware type, object type, and use group. Much of the metal artifact assemblage came from the architecture use group and consisted of cut nails and cut nail fragments. During excavation metal detectors were used and it is, therefore, reasonable to assume that the number of metal artifacts collected reflect an accurate sample of metal at the 3MI266 site. Though the Perry Plunkett collection must also be considered as he used a metal detector to collect a number of metal artifacts.

Other Artifact Methods of Analysis

The other artifact category represents a catchall for artifacts not numerous enough to require separate categorization. Included in the other artifact category are: faunal remains, botanical remains, unworked stone, daub, and charcoal. There are 547 artifacts in this category which is 15.35 percent of the total assemblage. A majority of

the artifacts in this category are faunal remains. There was no attempt to identify the species of faunal remains present in this assemblage.

Chipped Stone Methods of Analysis

Chipped stone made up the smallest category in the assemblage. There are 61 chipped stone artifacts making up 2.10 percent of the total artifact assemblage. Chipped stone artifacts were counted and weighed and then sorted by tool type and material type. Much of the chipped stone artifacts are flakes. Notable tool types include five gunflints and two points. The main material type is chert followed by novaculite.

Perry Plunkett Collection

The Perry Plunkett collection of artifacts were only available for study via digital photographs. Therefore, no counts or measurements could be made. According to Frank Schambach's notes there are 140 artifacts in the Plunkett collection and a total of 165 digital images of the collection. Most of the artifacts Plunkett collected are metal with a few European ceramics mixed in the assemblage. I did not have access to Perry Plunkett's personal notes or maps of the site and could not, therefore, assign an area to any of the artifacts collected. As previously stated, however, the Plunkett collection remains important because it is a primary reason site 3MI266 has been interpreted as the Sulphur Fork Factory.

Results of Artifact Analysis from 3MI266

Analysis of artifacts from 3MI266 is simple and straightforward. The methods described above allowed for multiple types of analysis to take place. Specifically, I

focused on spatial distribution of the artifact categories and the date ranges of decorated European ceramics to determine a chronology.

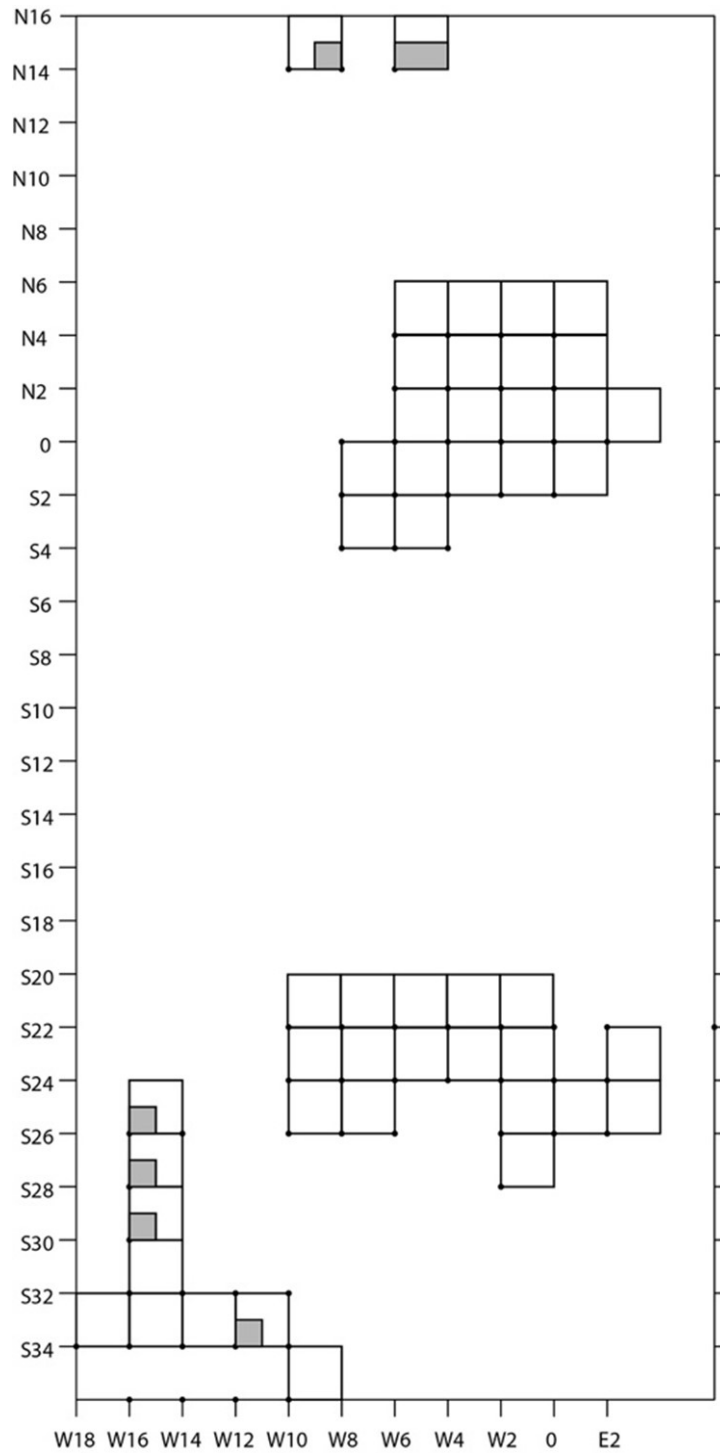


Figure 4.1 Map of excavated test units at Site 3MI266

The goal of the analysis is to produce results that can answer certain questions: Is site 3MI266 actually the location of the Sulphur Fork Factory? How many occupations may have occurred and over what time period was the site occupied? And, how were the two areas excavated used and how might they be related? By examining the data distribution across the site and determining a chronology, the answers will hopefully come to light.

Ceramic Results of Analysis

Ceramics are the most important component for determining the dates of occupation of site 3MI266. A chronology can be established by examining categories such as ware type, decorative styles, and color of European tablewares. Miller (1980, 1991) established an extensive chronological descriptive analysis of the common types of ceramics that were imported to the United States between the 1780s and 1880s. This information, when coupled with the electronic database established by the Maryland Archaeological Conservation Laboratory (2012), allows for a chronology of the European ceramics to be developed.

Table 4.2 Ceramic Count and Percentage Based on Location

Location	Count	Percentage
Area 1	753	54.64%
Area 2	367	26.63%
Feature 1	171	12.41%
Surface	87	6.32%
Total	1378	100.00%

Area 1 contained a majority of the ceramic assemblage. A total of 54.64 percent of all ceramics were excavated in Area 1 and 12.41 percent of ceramics were found in Feature 1, which is located in Area 1. Only 26.63 percent of ceramics were excavated in Area 2.

A number of different European decorative styles of tablewares were identified during analysis. These include transferware, painted ware, edge ware, dipped ware, salt-glaze stoneware, and colonial ceramics. During the nineteenth century tablewares were made almost exclusively in England and were imported in large quantities to North America. Undecorated ceramics were the most numerous, but transferware followed making up 31.59 percent of the total ceramic assemblage. Painted tablewares make up 19.86 percent of the ceramic assemblage. The full breakdown of decorative ceramics can be seen in Table 4.3.

Native Ceramics

Native ceramics are included in the undecorated category, and there are a total of 43 sherds with provenience in the ceramic assemblage. The native ceramic tempers include grog, shell-grog, bone, and sand. These tempers suggest ceramics made by Caddo potters who are known to have made ceramics with grog, shell, and bone temper in southwest Arkansas. Cherokee potters used sand or grit tempers (Marcoux 2010), while the Coushatta made sandy-paste pottery (Perttula and Boyd 2008). Grog tempered ceramics made up a majority of the provenienced native ceramics with 30 sherds. Twenty-eight of these were located in Area 1 or Feature 1. In fact, 37 of the 43

native ceramics were located in Area 1 or Feature 1 (Figure 4.2). This could indicate that Area 1 was sometimes used as a communal gathering area.



Figure 4.2 Shell-grog tempered (left) and grog tempered pottery (right) at 3MI266

Table 4.3 Native Ceramic Counts by Temper and Location

Ware Type	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Bone Tempered	2	4	0	0
Sand Tempered	2	0	0	0
Grog Tempered	27	0	1	2
Shell-Grog Tempered	5	0	0	0
Total	36	4	1	2

This data matches that of the European ceramic location on site 3MI266 with a total of 1,024 ceramic sherds found in Area 1 or Feature 1. European and native ceramics were found in the same context, indicating there were interactions between Native Americans and Americans. This narrative fits what we would expect to see at Sulphur Fork Factory as native groups frequented the factory to trade their goods. However, this could also be an indication that Native Americans settled the site and had access to European and American goods.

Colonial Ceramics

Much of the ceramic assemblage at 3MI266 is post-colonial. However, there are some sherds of Astbury-type, Jackfield-type, black basalt, and creamware that are classified as colonial earthenware and English dry body stoneware according to the Maryland Archaeological Conservation Lab database (2012).

The Jackfield type is a thinly walled fine earthen ware ceramic with a purplish to gray body that is covered with a lustrous thin, glossy black glaze (Maryland Archaeological Conservation Lab, 2012). Developed in the 1740s, Jackfield was most popular during the 1750s and 1760s. The primary vessel forms of the Jackfield type are tea and coffee wares. There are only 2 Jackfield ceramic sherds. One sherd was found in Area 1 and the other in Area 2.

Astbury is a thinly potted fine red earthenware with a dense, dull red body and ginger colored glaze (Maryland Archaeological Conservation Lab, 2012). According to Hume (1970), fine red earthenwares like Astbury began to appear in the 1720s and then declined in production after 1750. Vessels were generally produced in the form of tea ware, bowls, and coffee pots. Five sherds of Astbury-type earthenware were recovered from Area 1.

Cream-bodied earthenware was developed in 1740 in Great Britain. It wasn't until 1762, however, that Wedgwood introduced a clear lead glaze that the cream-colored ware became known as creamware (Maryland Archaeological Conservation Lab, 2012). Creamware is a thinly potted earthenware with a clear lead glaze and cream-colored body. The development of creamware marked a major transition in the pottery

industry (Miller 1980,1991). The twice-fired method used for creamware became the standard in ceramic production and led to the development of other wares such as underglaze printing and painted earthenwares (Maryland Archaeological Conservation Lab, 2012).



Figure 4.3 Jackfield type (left), Astbury type (center), and molded Creamware (right)

Decorative techniques such as underglaze painting, overglaze painting, transfer print, and rim molding were used to decorate creamware. The various techniques are valuable indicators for dating these wares (Miller 1980, 1991). A majority of creamwares were in the form of tea and tablewares and were in molded patterns without the addition of color (Miller 1980, 1991). This description fits the examples of creamware found at 3MI266. The creamware at 3MI266 is only decorated by rim molding and though there are a variety of molding motifs available, the examples at 3MI266 are sprig molding. Sprig molding uses small decorative motifs such as flowers and foliage (Maryland Archaeological Conservation Lab, 2012). According to Miller and Hunt (1990) plain creamware dominated the market from the 1780s through to the War of 1812.

There are six creamware sherds in the 3MI266 assemblage and only five have provenience. These sherds were evenly spread throughout 3MI266 (see Table 4.4).

Table 4.4 Colonial Ceramics by Ware Type, Date Range, and Location

Ware Type	Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Astbury	1720s-1750s	5	0	0	0
Black Basalt	1750s-Early 19 th c.	1	1	0	0
Creamware	1770-1815	2	2	1	0
Jackfield	1740s-19 th c.	1	1	0	0
Total		9	4	1	0

English dry-bodied stonewares are characterized by a fine-grained, non-porous stoneware body that required no glaze, and these wares are often decorated with die stamped reliefs, sprig molding design, or engine turning (Maryland Archaeological Conservation Lab, 2012). According to Gusset (1980:208) black dry bodied stoneware was developed in the 1750s and perfected by Wedgwood in the 1760s. This type of ware was widely imitated by other potters according to Hume (1970). The production of dry-bodied stoneware was limited through the twentieth century. Tea and coffee pots were the most common wares but some tablewares and decorative pieces were also manufactured. A common dry-bodied variety is black basalt. Engine turned black basalt was found at 3MI266 in only two small sherds in Areas 1 and 2.

Obviously colonial ceramics with a date range from the 1720s to the nineteenth century are much too early for the known occupation of the Sulphur Fork Factory. However, they are not too early for Natchitoches where Fowler was factor before the factory was moved to Sulphur Fork. These colonial wares could have been moved with

Fowler when the Sulphur Fork Factory was opened in 1817. There is no evidence of an earlier occupation at 3MI266, therefore this is the most likely scenario. Although the assemblage is small, there seem to be more of these sherds in Area 1 than in Area 2.

Post-Colonial Ceramics

Transferware

Transferwares or printed wares make up a majority of the decorated sherds at 3MI266 with a total of 443 provenienced sherds. The transferware technique was developed in the late eighteenth century. The technique transferred printed patterns onto vessels, which were then fired under a glaze. The process utilized tissue paper and an inked and engraved plate. The design was transferred onto a ceramic vessel and then fired. The transferware technique was efficient, allowing potters to quickly apply a complex design to a vessel.

There are several ways to date transferware ceramics. The Maryland Archaeological Conservation Lab (2012) database provides four primary ways of dating transferware: central motifs, border or marly designs, color, and other printing techniques.

Table 4.5 Transferware Decorative Styles and Range of Production Dates

Decorative Style	Range of Production
Chinese	1783-1834
Chinoiserie	1783-1873
British Views	1793-1868
American Views	1793-1862
Exotic Views	1793-1868
Pastoral	1781-1859
Classical	1793-1868
Romantic	1793-1870
Gothic	1818-1890
Central Floral	1794-1869
Sheet Patterns	1795-1867
Aesthetic	1864-1907

There are twelve central decorative styles identified by Samford and Miller (2012), each with its own date range as shown in Table 4.5. Many of the ceramic sherds excavated at 3MI266 are too small to identify the style with any certainty, particularly when one considers the nuances of printed ware design. Sheet patterns and aesthetic period transferware design motifs are absent from the 3MI2266 assemblage and can therefore be disregarded in this discussion. Border and marly designs related to the central design motifs are also found on plates. The border design often frames the central motif on a printed vessel. The border designs that have been identified by Samford and Miller (2012) are in several broad categories and can be dated to 15-to-20-year periods (See Table 4.6). The border motifs on rim sherds are not as nuanced as design motifs and were, therefore, easier to identify. There are examples of both

continuous and repeating designs as well as non-continuous repeating designs. It would be difficult to identify main scene continuation from a one-inch rim sherd and the same is true for vignette design.

Table 4.6 Transferware Design Motifs and Range of Production Dates

Design Motif	Range of Production
Main Scene Continuation	1784-1903
Continuous Repeating Florals	1784-1856
Continuous Repeating Geometric	1784-1864
Continuous Repeating Other	1784-1910
Continuous Repeating Linear	1820-1891
Non-Continuous Repeating Floral	1799-1894
Floral Vignette	1802-1889
Scene Vignette	1790-1889
Object Vignette	1809-1889

Color is perhaps the single most important dating tool for the purposes of this thesis and to site 3MI266 chronology. From the 1780s through the 1820s blue was the primary coloring agent for underglaze print vessels (Samford and Miller 2012). For a period of time cobalt was the only color that could withstand the high heat of glazing without blurring. As time went on and technology improved the glazes became clearer. This allowed potters to introduce a variety of colors into the transfer print process. These new colors included black, brown, purple, lavender, green, teal, and red. All colors are represented in the 3MI266 assemblage and have a continuous date range from 1784 to 1890.

Table 4.7 Transferware Color by Date and Location

Color	Date Range	Mean Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Dark Blue	1802-1846	1819-1835	27	16	0	2
Medium Blue	1784-1859	1817-1834	126	30	4	12
Light Blue	1818-1867	1833-1848	40	17	3	12
Black	1785-1864	1825-1838	9	10	2	2
Brown	1818-1869	1829-1843	6	3	1	2
Green	1829-1869	1832-1850	1	5	0	1
Lavender	1829-1871	1830-1846	3	3	0	7
Purple	1829-1867	1834-1848	31	32	3	11
Red/Pink	1829-1880	1829-1842	1	6	0	1
Teal	1828-1848		8	5	1	0
Total			252	127	14	50

However, when we considered the mean color date range, decorative styles, and border design motif the actual end date of occupation may be closer to 1850. Based on the available data it does not appear that 3MI266 was extensively occupied after 1840. The last documented occupation we know of occurred in 1825.

Other printing techniques included engraving technology, field dots, negative printing, and flow colors. Of these techniques only negative printing is represented at 3MI266. The peak production of negative printing was between 1821-1840, which is within the established date range provided by transferware color range and fits the possible occupation chronology.

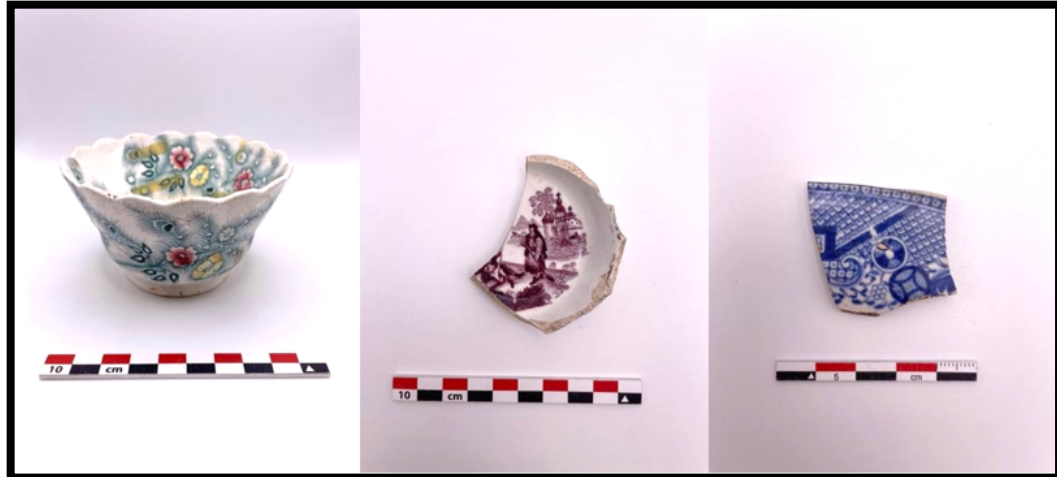


Figure 4.4 Transfer print teacup with floral and feather motif in teal (left), pastoral view in purple (center), and continuous geometric motif in dark blue (right)

A majority of the transfer print ceramics came from Area 1 (Figure 4.4) which makes sense given that Area 1 and Feature 1 have a combined total of 1,024 of all ceramics excavated at 3MI366, or 69 percent of the total ceramic assemblage. When considering the date range of production and the mean date range established by Samford and Miller (2012) it is clear that much of the transferware ceramics postdate the Sulphur Fork Factory and support the idea of later occupations of the site.

Edge Wares

Shell edged or edge wares can be identified by their molded rim motifs, usually painted blue or green under the glaze of refined earthenwares. Staffordshire potters used the term “shell edge” in the eighteenth century, but by the nineteenth century potters used the term “edged” to describe both shell edged and embossed rim motifs (Hunter and Miller 1994; 433-434).

Within North American archaeological contexts, shell edge earthenwares are one of the most common decorative types used on North American tablewares (Maryland Archaeological Conservation Lab 2012). Shell edge earthenwares date between 1790 and 1860. Edged earthenwares were inspired by eighteenth century Rococo designs. The earliest documented Staffordshire potter to use shell-edge motif was Josiah Wedgwood who introduced the style on creamware in the mid-1770s (Maryland Archaeological Conservation Lab 2012). Other English potters quickly adopted the motif. Shell edged wares were the least expensive tablewares with color decoration in the years between 1780 and 1860, most likely due to the simplicity of the design (Hunter and Miller 1994:443).

Table 4.8 Edge Ware Decorative Styles and Range of Production Dates

Decorative Style	Range of Production
Rococo Inspired	1775-1810
Neoclassically Inspired	1800-1830s
Embossed Rim	1820-1830
Unscalloped Rim	1840s-1860s
Non-Impressed	1860s-1890s

Shell edge decoration is found on tableware but is very rare on tea wares or toilet-wares. According to archaeological site data and historical invoices the dominate vessel forms for edge ware are plates, soup plates, twiflers (8-inch plates), muffins (7-inch plates), and platters.

A majority of shell edged vessels did not have a manufacturer's mark and therefore dating these ceramics can be quite challenging. Impressed marks when

present would be on the bottom of the vessel and unless the recovered ceramic is nearly whole there would be nothing to connect the rim and marly to the vessels that might have a maker’s mark. However, molded motifs of shell edge wares show distinct variations over time and archaeologists can use these variations to date an assemblage.

Table 4.9 Edge Ware Decoration by Date and Location

Decoration	Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Neoclassical	1800-1830s	29	15	10	0
Embossed	1820s-1830s	2	1	1	0
Unscaloped-Impressed	1840s-1860s	1	0	0	0
Non-Impressed	1860s-1890s	11	4	7	0
Undetermined		0	0	1	0
Total		43	20	19	0

Five decorative styles have been identified with corresponding date ranges of production (See Table 4.9). Rococo inspired edge ware has a distinct asymmetrical, scalloped rim with impressed curved lines and, like most edge ware, the common underglaze is blue or green. Edgeware that is Neoclassically inspired has symmetrical, scalloped rims and impressed lines that are curved or straight with blue or green underglaze (See Figure 4.5). Embossed rim edge ware incorporates various motifs such as fish scales, floral garlands, and wheat. Most commonly painted blue, unscaloped edge ware is impressed with simple repetitive patterns. And, finally, non-impressed edge ware is created by simple brush strokes and is most often blue in color.

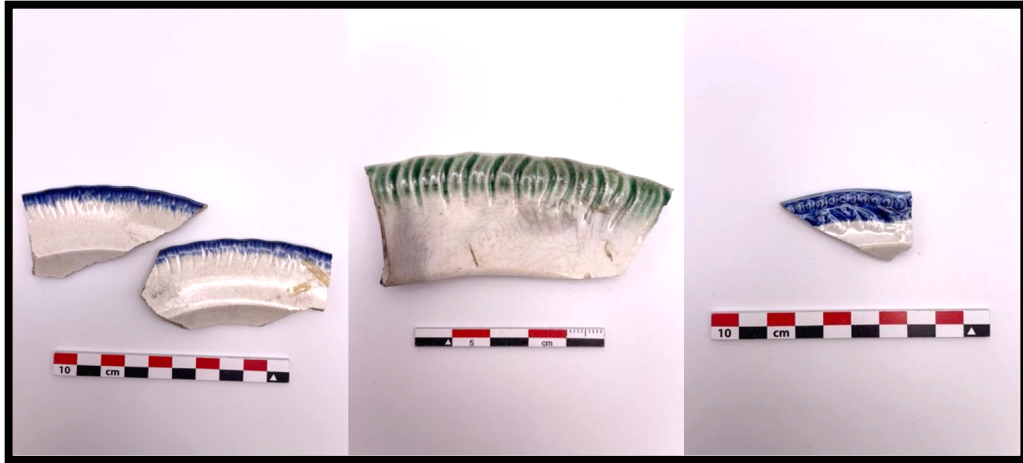


Figure 4.5 Neoclassically decorated rims in blue (left) and green (center), and embossed decorated rim in blue (right)

The decorative style range is between 1775 and the 1890s depending on decoration style. Decorative styles represented in the 3MI266 assemblage are Neoclassically inspired, embossed rims, and unscalloped rims. The majority of edgware examples are of the Neoclassical variety. The Neoclassical edge ware examples fit within the date range for the factory store. Embossed, unscalloped, and non-impressed examples fall outside the occupation date range for the factory, but their presence does support the possibility of a later occupation.

Painted Ware

Underglaze painted earthenwares are refined and white-bodied. In order to date painted wares, it is first important to understand the technological changes that occurred over time. Changes in the clay bodies, glazes, and colors can each give an indication about when the vessel was most likely produced. Early underglaze painted wares occurred on creamware and the decoration tended to be mottled due to how the lead glaze interacted with coloring agents. By the 1770s, new clays and materials (such

as kaolin clay) were introduced into glaze formulas. The new ingredients stabilized the painted patterns that had previously been absorbed into the glaze; therefore, the painted design stayed in place on the vessel. The technological advances led to a major shift in underglaze painted production which can be seen in the archaeological record.

Table 4.10 Painted Ware Decorative Patterns and Production Date Range

Decorative Patterns	Production Date Range
China Glaze Cobalt Blue	1775-1810
Early Polychrome	1795-1815
Cobalt Blue with Large Brush Strokes	1815-1830
Late Polychrome	1815-1830
Chrome Colors	1830-1860
Sprig Wares	1935-1870

According to Maryland Archaeological Conservation Lab (2012) database there are six identifiable underglaze painted patterns that can help date painted wares (Figure 4.10). Five of the six patterns are present in the 3MI266 assemblage. There are no examples of China glaze cobalt blue patterns, which is to be expected if the site was not occupied until around 1817.

Prior to 1795 cobalt was the primary color used on underglaze painted wares. Polychrome colors were introduced around 1795 as the aforementioned technological advances in glaze formulas were developed. Also, during this period, the Napoleonic Wars disrupted the supply of cobalt, which made the coloring agent more expensive and difficult to obtain. Accordingly, polychrome painted wares increased in popularity and the use of cobalt decreased (See Figure 4.6). Early polychrome wares used oxides of copper green, antimony yellow, iron brown, and manganese brown often under a

pearlware glaze. In 1815 the use of pearlware blue-tint glaze decreased as whiteware was developed. During this period the use of cobalt returned and increased on polychrome wares. Cobalt painted wares with large brush strokes featuring floral patterns became popular around 1815.

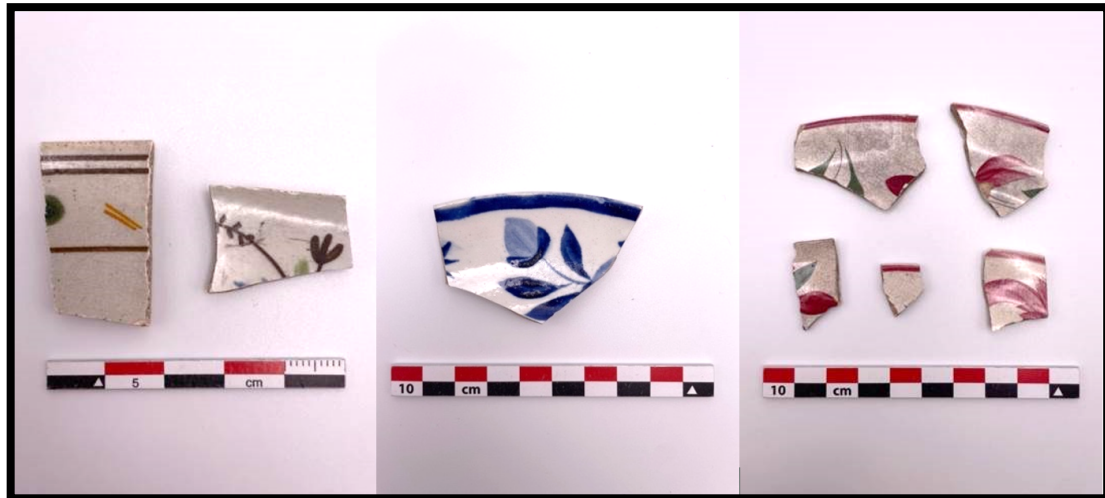


Figure 4.6 Polychrome painted floral motif with minimal cobalt (left), cobalt blue painted with large brush strokes (center), and red chrome painted flowers (right)

In 1798, French chemist, Louis Nicolas Vauquelin identified chrome as an element. Vauquelin used the name chrome because of the number of colors that could be derived from the metal. It wasn't until 1830 when borax was added into glazes that chrome colors were introduced. After this, chrome colors – greens, yellows, and reds – began to be used on underglaze painted wares. The most prominent color derived from chrome oxides is a pinkish color and is an excellent indicator that an underglaze ceramic was produced after 1830. Another indicator that a painted ceramic is post 1830s is the use of a floral motif with pinkish red flowers and a black stem. This type and form of

chrome ceramics are present in the 3MI266 assemblage and help further define the chronology for the site.

In 1835 sprig painted patterns begin to appear. The sprig painted patterns developed in order to cut down production costs when the prices for painted wares declined. Sprig wares require fewer brush strokes, were less labor intensive than other designs, and did not require a skilled painter. For example, early patterns like the China glaze landscapes required a large amount of brush strokes and a skilled painter and were, therefore, more expensive to produce and purchase. The sprig ware designs are predominately found on tea wares and remained common until the 1870s (Miller and Earls 1990). There are several examples of sprig painted wares at site 3MI266, which is of course after the known occupation date of 1817-1825.

Table 4.11 Painted Ware Decoration by Date Range and Location

Decoration	Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Early Polychrome	1795-1815	22	7	7	0
Late Polychrome	1815-1830	27	10	5	0
Cobalt Floral	1815-1830	10	28	14	1
Chrome	1830-1860	50	14	13	13
Sprigware	1835-1870s	21	14	15	1
Total		130	73	54	15

Early polychrome, late polychrome, and cobalt floral decoration could all fit within the 3MI266 occupation period. Early polychrome is slightly earlier than the Sulphur Fork Factory but as with the colonial ceramics it is not too early for Natchitoches and these wares could have been brought with Fowler when the factory

was moved. Cobalt floral, chrome, and sprigware would all be after the Sulphur Fork Factory occupation period and are evidence of later occupations of the site.

Dipped Ware

Dipped wares have brightly colored surface decoration. Collectors, curators, and archaeologists have used a number of terms over the years to identify these wares including annular, mocha, and banded. The most common terms are dipped or dip't. Produced between the 1770s through the end of the nineteenth century, dipped wares almost never have a maker's mark and are difficult to accurately date (Rickard 2006, Carpentier and Rickard 2001). Tool patents used in producing dipped ware designs and descriptions in potter's records have helped determine beginning dates for certain types of dipped ware decoration (Rickard 2006). The earliest known examples are slip marbled or variegated wares, manufactured in the 1770s (Rickard 2006). In North America dipped wares are most commonly found on hollow utilitarian vessel forms such as mugs, jugs/pitchers, bowls, and chamber pots.

The earlier dipped ware designs were meant to imitate geological stone while later designs are more fanciful and abstract. After 1840 there was an effort made by potters to simplify the designs of dipped ware and create more uniformity in order to cut down production costs (Miller 1991:22). For example, later vessels display simple banding without additional slip or incised designs that were common in earlier dipped ware vessels.

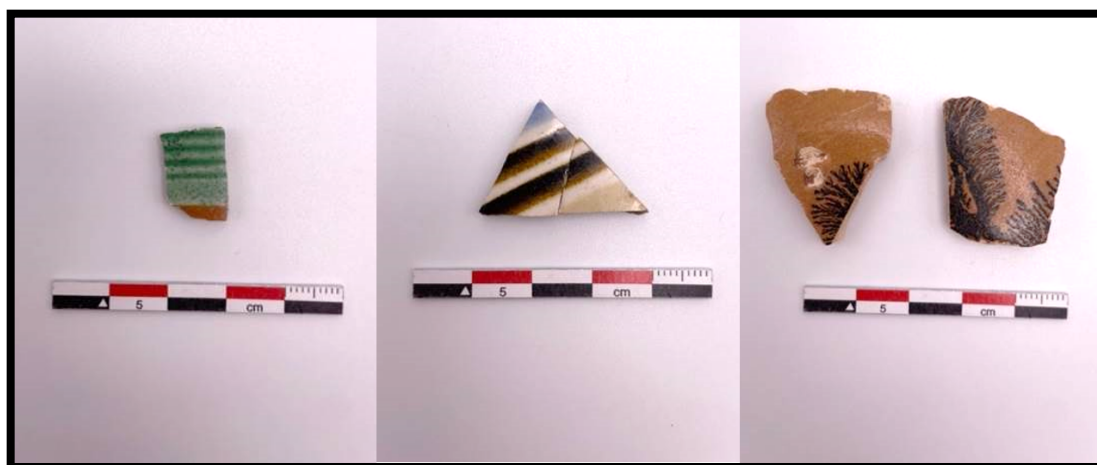


Figure 4.7 Rilling at rim in green slip (left), banding in blue, black, rust, and tan slip (center), and mocha decoration (right)

Jonathan Rickard (2006) defined nine categories of industrial or factory-made dipped wares. Lynne Sussman (1997) gave detailed descriptions and illustrations of techniques used to produce dipped wares. Rickard and Sussman's work are used below to briefly describe each category of dipped earthenwares.

Banded ware applies bands of colored slip to a vessel and was a popular decorative technique for dipped wares (See Figure 4.7). Vessels were mounted horizontally on a lathe while a slip bottle trailed in the desired color onto the vessel. This design was a very popular decorative technique in dipped wares and over time the colors transitioned from bright earth toned colors to more dull colors like blue, gray, and black (Carpentier and Rickard 2001). Variegated surfaces were some of the earliest dipped wares and were meant to emulate agate, porphyry, and other types of stone. In order to create this effect, potters used different color slips allowing them to run and swirl together. The earliest variegated designs are found on cream bodied earthenware and often have sprig molding (Rickard 2006).

Engine turned dipped wares are decorated with complex geometric patterns using turning lathes that cut through the slip. This technique, along with colorful slips, created prominent patterns on dipped vessels. Engine turning lathes were used in ceramic production by potters as early as the 1770s and were in production until the late nineteenth century (Carpentier and Rickard 2001).

Perhaps the most well-known design dipped ware is mocha (See Figure 4.7). These dipped earthenwares feature treelike, dendritic patterns and were meant to resemble agate (Priddy 2004). A “mocha tea” solution was applied to the vessel using an artist’s brush. The solution was dropped from the brush onto a wet slip coated vessel to create the distinct design. Mocha decoration is mentioned in potter’s invoices and found in pattern books of the late eighteenth century (Carpentier and Rickard 2001). It is rare to find mocha on archaeological sites dating after 1850. Mocha is the most common dipped ware found at 3MI266.

Multi-chambered slip decoration was produced using a multi-chambered slip cup that could simultaneously add three to four different color clay slips to a vessel. The earliest reference of multi-chambered slip cups comes from an 1811 patent (Carpentier and Rickard 2001).

Additional decorations sometimes added to the above-mentioned decorative techniques include rouletted bands and rilling and commonly occur at the rim of the vessel. An embossed rouletting wheel was used to create a rouletted band on a leather hard vessel and could be further defined with the application of a colored glaze or slip. Rouletted bands were common from 1810 to 1860 (Miller 1991). Rilling, also known as

reeding, is a band of narrow groves made by a sharp tool. There are a few examples of rilling at site 3MI266 (Figure 4.7).

Table 4.12 Dipped Ware Decoration by Date Range and Location

Decoration	Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Banded	1770s-Early 20 th c.	9	3	0	0
Mocha	1790s-1939	13	1	1	1
Multi-Chambered	1811-19 th c.	0	1	0	0
Rilling	1770s-Early 20 th c.	3	0	0	0
Variegated	Late 18 th c.-1810s	1	1	3	0
Solid Color	1770s-Early 20 th c.	4	0	0	0
Total		30	6	4	1

A total of 34 dipped wares were found in Area 1 and Feature 1, while only 6 dipped ware sherds were in Area 2. The date ranges given for dipped wares range from the late 18th century through the early 20th century. Given this date range it is possible that dipped wares were used during 3MI266's known occupation and supports the idea of later occupations. However, as noted above, it is rare to find mocha wares on archaeological sites after 1850 which may give an indication of when the site was abandoned.

North American Stoneware

North American stoneware is a vitrified and stone-like ceramic with paste colors ranging from gray to tan to reddish browns. North American stonewares are generally treated with glazing or slip, though glazing is not required because properly fired stoneware is impervious. Stoneware vessel forms are primarily utilitarian in function. In the nineteenth century, after the Civil War, the production of stoneware in North

America increased dramatically, and during this time the method of production evolved from wheel thrown to mold made.

A variety of glazes and slips were applied to stoneware vessels. In the 3MI266 assemblage, all stoneware sherds are either unglazed or salt glazed (See Figure 4.8). As previously mentioned, stoneware is vitrified and glaze is not necessary. Nevertheless, much of North American stoneware is glazed, and it may have been applied for aesthetic purposes, for cleaning, or both.



Figure 4.8 Interior of vessel showing the absence of slip (left) and exterior of vessel showing salt-glazed dimpled texture (right)

Salt glaze was one of the most common types of glaze applied to North American stoneware. The distinguishing characteristic of salt glaze is its dimpled, “orange peel” like texture (Figure 4.8). The dimpled effect was created by introducing salt into the kiln during firing. The salt reacts with the silicates in the clay to create its distinct texture. The surface colors of North American stoneware can range from very pale beige to very

dark gray. The color depends on the type of clay being used as well as the kiln conditions.

Table 4.13 American Stoneware Counts by Decoration, Date Range, and Location

Decoration	Date Range	Area 1 Count	Area 2 Count	Feature 1 Count	Surface Count
Salt Glazed, Exterior Only	1825-1860	9	0	2	0
Salt Glazed, Interior and Exterior	1825-1890s	1	0	0	0
Unglazed	1825-1860	4	0	3	0
Total		14	0	5	0

Salt glaze vessels could display incised decorations in a variety of stylized motifs. The incised decoration is generally filled with cobalt. The salt glaze stoneware at 3MI266 is, however, undecorated. Vessel forms are primarily utilitarian in function, with purposes ranging from food preparation and storage to toiletry and chamber wares. Tableware forms, with the exception of mugs, were not commonly produced. Salt glaze vessels date to the twentieth century and the absence of slip on the interior indicates a vessel prior to 1860. The examples of North American stoneware at site 3MI266 are primarily glazed on the exterior and therefore it is likely these vessels date earlier than 1860. There is one example of stoneware glazed on both the interior and exterior that is clearly from a different type of vessel. This sherd is thin walled while the other stoneware examples are extremely thick. There are seven examples of stoneware that do not have any glaze at all. All stoneware ceramics from 3MI266 are found in Area 1 and Feature 1.

The examples of North American stoneware present at 3MI266 postdate the Sulphur Fork Factory and once again support later occupations of the site. Because most

of the stoneware has an end date of 1860, the chronology of later occupation is becoming clearer.

Table 4.14 Ceramic Counts by Area Showing Occupation and Post-Occupation Periods

Period of Occupation by Area	Ceramic Types					Ceramic Count Totals by Area
	Colonial Ceramics	Transfer Ware	Edge Ware	Painted Ware	Stone Ware	
1817-1825						
Area 1	10	157	42	85	0	294
Area 2	4	46	16	48	0	114
Post-1825						
Area 1	0	104	19	99	19	241
Area2	0	81	4	28	0	113

As previously indicated, a majority of the ceramics came from Area 1, and all decorative styles were present in Area 1. The decorative styles and associated ceramic date ranges indicate around 100 years of occupation at 3MI266. More specifically, the ceramic data brackets potential occupation of the site beginning in the late eighteenth century and running through the end of the late nineteenth century. However, the earlier ceramics can be interpreted as ceramics coming from Natchitoches when Fowler moved the factory to Sulphur Fork. This bracketed period of occupation includes the known Sulphur Fork Factory occupation period of 1817-1822 as well as the period private trader George Gray lived at the site until he to abandoned it in 1825.

After 1825 it is unclear who exactly may have occupied 3MI266, but the date range supports continued or multiple reoccupations of the site. Given that there were a number of groups moving through or into the area during the early to mid-nineteenth century and that the sites buildings likely remained but were abandoned, it is likely the

site was reoccupied due to convenience. Who exactly relocated to site 3MI266 remains unclear.

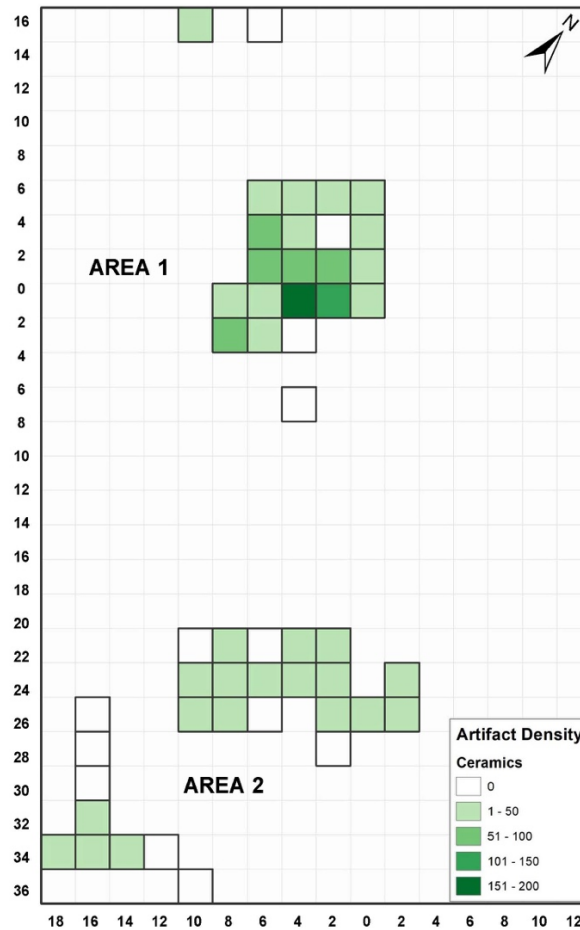


Figure 4.9 Density map showing the distribution of ceramics across site 3MI266

Glass Results of Analysis

There are 385 glass artifacts in the 3MI266 artifact assemblage. This accounts for just 11.05 percent of the total artifact assemblage. Of the 385 glass artifacts 331 have provenience. The glass artifacts are almost evenly split between Area 1 and Area 2 which differs greatly from the ceramic assemblage most of which was found in Area 1 (Table 4.14). A solid date range for glass was difficult to determine given the highly

fragmented state of the glass assemblage. However, a tentative date range was attempted and shows the glass artifacts possibly range from the late eighteenth century to the late nineteenth century. This date range corresponds with the date range found in the ceramic assemblage.



Figure 4.10 Lead glass tumbler base with open pontil (left), pressed glass with scalloped rim (center), and dark olive bottle base with kick up (right)

A majority of the glass in this assemblage is bottle glass with some tableware glass. The glass colors ranged from aqua, light aqua, black olive or amber, dark olive, olive, green, and colorless or clear. One seal fragment bore the partial inscription (CHAT...). Other than beads, this is the only glass fragment of note. The rest of the glass artifacts were too fragmented to make any diagnostic assertions.

Table 4.15 Glass Artifact Counts by Location

Location	Count	Weight in Grams
Area 1	124	407.1
Area 2	157	335.8
Feature 1	48	323.6
Surface	2	3.9
Total	331	1,070.4

Among the 385 glass artifacts recovered from 3MI266, 26 are glass beads (Figure 4.11). The beads were fairly evenly distributed among Area 1 and Area 2. Thirteen beads were found in Area 1 and nine were found in Area 2, and four did not have a provenience attached. As mentioned above, it is unlikely this number accurately reflects the number of beads at 3MI266 due to the size of seed beads.

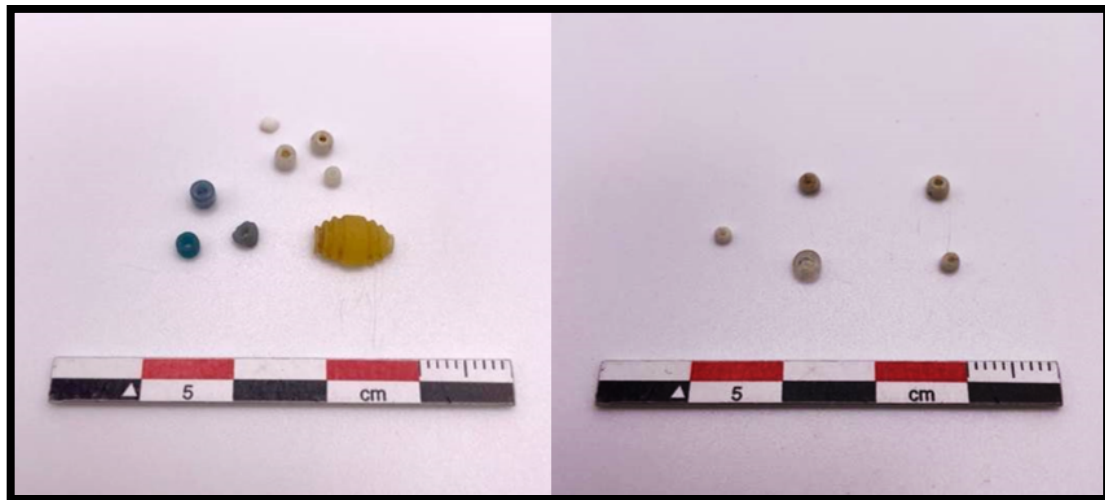


Figure 4.11 Blue seed beads, white seed beads, and wired yellow bead (left) and four white seed beads and one clear seed bead (right)

The glass beads are an important part of the artifact assemblage and highlight the possible presence of native peoples at 3MI266. Furthermore, beads were a main

trade item at factory stores (Peake 1954). Once again, some suppositions can be made:

(i) the site was inhabited by native peoples with access to European and American goods, (ii) the beads were trade items associated with the Sulphur Fork Factory, or (iii) both could hold true with an occupation period that goes beyond the factory store occupation.

Metal Results of Analysis

A total of 1,040 metal artifacts were analyzed for this thesis and of those 1,003 had provenience. Area 2 contained 654 metal artifacts, while Area 1 and Feature 1 contained a total of 321 metal artifacts. Ferrous cut nail fragments accounted for the majority of metal artifacts found at 3MI266.

Table 4.16 Metal Artifact Counts and Weight by Location

Location	Count	Weight in Grams
Area 1	291	1501.2
Area 2	654	1955.9
Feature 1	30	155.7
Surface	28	131.1
Total	1003	3743.9

Metal artifacts were sorted by metal type, object type, and use group. The use group category is most helpful in ascertaining meaning from the metal artifacts. Four use groups were assigned to metal artifacts: architecture, kitchen, clothing and personal, and arms.

The architecture use group contained most of the metal artifacts due primarily to a large nail concentration in Area 2 (See Figure 4.12). The concentration of nails along with a chimney fall in Area 2 suggests the presence of a building.

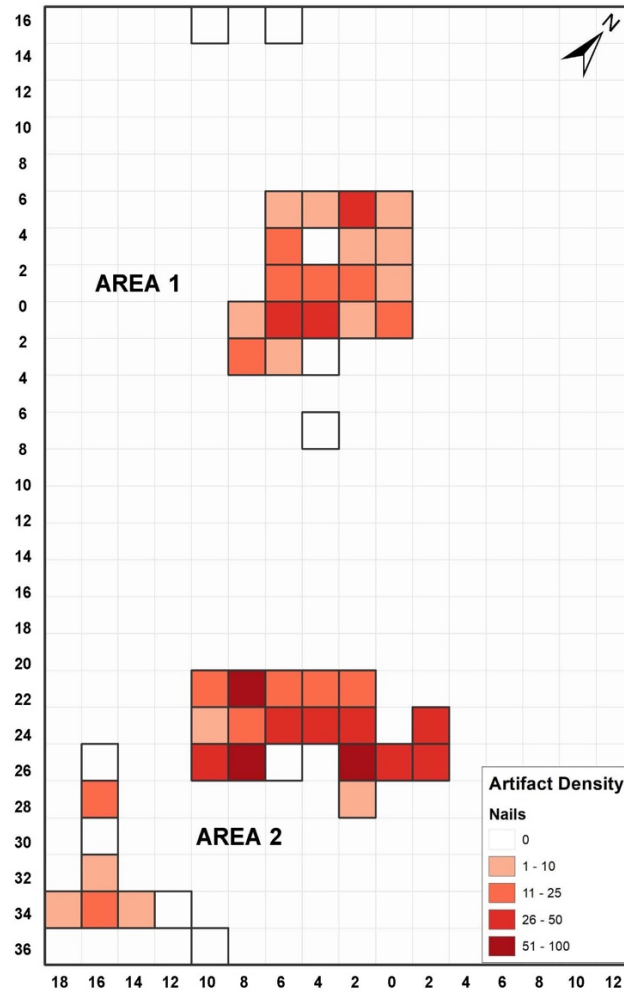


Figure 4.12 Cut nail count distribution map

Interestingly, nails are one metal artifact that did not seem to interest Perry Plunkett as there are none in his collection. Nails are a likely well-represented category of artifacts because excavation utilized metal detectors. There were 257 nails in Area 1 and 495 nails in Area 2. Eighty-one nails did not have provenience.

The kitchen use group, though small in comparison to the architecture group, is meaningful once the distribution between areas is considered. There are a total of 16 artifacts classified under kitchen use group. These include flatware and iron kettle fragments. Area 1 contained 11 kitchen use group items whereas Area 2 contained only one – a flatware handle. Four artifacts classified as kitchen use group did not have provenience.



Figure 4.13 Scissor handle fragments (left), large skeleton key (center), and pewter spoon (right)

Clothing and personal artifacts are generally considered two separate use group categories; however, they were combined for this analysis due to the small number of total artifacts in the two groups. There are a total of 10 artifacts in the clothing and personal use group category. These include buttons, a pipe tomahawk bowl, a kaolin clay pipe stem, and scissors. All but two of these artifacts came from Area 1. Area 2 contained a single button. The buttons are brass, come from infantry uniforms, and are dated between 1812 and 1822. This is consistent with the Sulphur Fork Factory period of operation. The pipe tomahawk bowl is an interesting artifact (Figure 4.14). It is made of

brass and is threaded at the bottom so that it can be attached and removed from the larger piece. According to historical documents European pipe tomahawks were desired by Native American groups and are listed as a trade item in the factory system inventory logs (Peake 1954).



Figure 4.14 Pipe tomahawk bowl (left), brass button (center), and kaolin clay pipe stem (right)

After architecture, the arms group is the most common metal artifact found at 3MI266. There are a total of 65 artifacts categorized in the arms use group. The distribution of the arms group is relatively even. Twenty-five artifacts came from Area 1, 32 came from Area 2, and eight did not have provenience. Much of this use group is comprised of lead ammunitions or brass percussion caps (Figure 4.15). There are some gun parts and a brass guard piece from a sword handle (Figure 4.15). The guard piece has been identified as a non-commission U.S. infantry sword and dates from 1790 to 1810. This date range coincides with the date ranges found in the other artifact categories.



Figure 4.15 Brass sword guard piece (left), iron thumb guard (center), and brass percussion caps (right)

Analysis of Other Artifacts

The other artifacts category is organized by use groups. However, this section will only focus on the kitchen group. The kitchen use group makes up 56.44 percent of the total artifacts in this category and consists exclusively of faunal remains. The other artifact types in this category are unworked stone, botanical remains, daub, and unknown materials.

Table 4.17 Faunal Remains by Location, Count, and Weight

Location	Count	Weight in Grams
Area 1	162	140.9
Area2	110	414.2
Feature 1	30	125.7
Surface	0	0
Total	302	680.8

There are 302 faunal remains present in the 3MI266 artifact assemblage. Area 1 contained 162 bones and Area 2 produced 110 bones. The species of the faunal remains have not been identified.

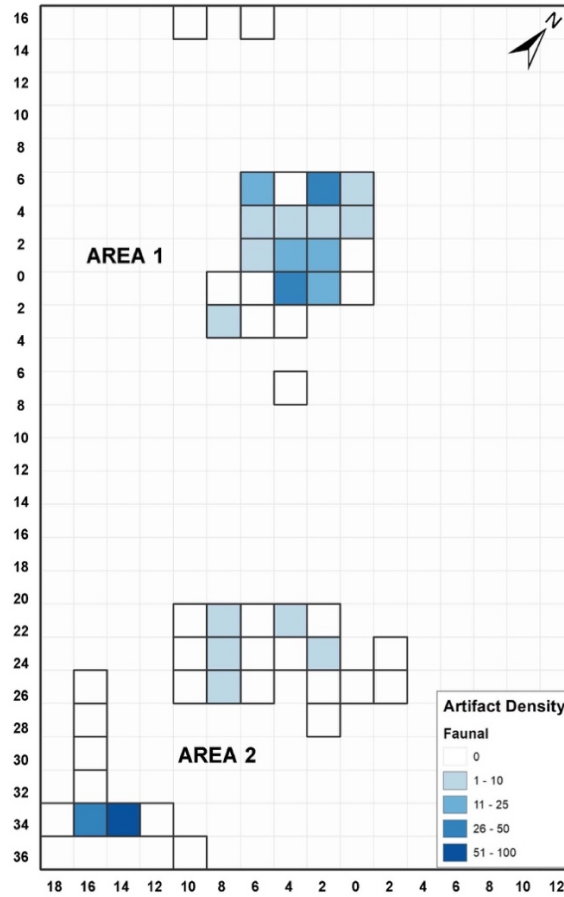


Figure 4.16 Faunal remains density map by count

Chipped Stone Analysis

There are a total of 73 chipped stone artifacts in the 3MI266 assemblage and a total of 70 with provenience. All lithics were identified by material type and then sorted by artifact type. Most of the chipped stone consist of flakes. There are, however, five gunflints and two points.

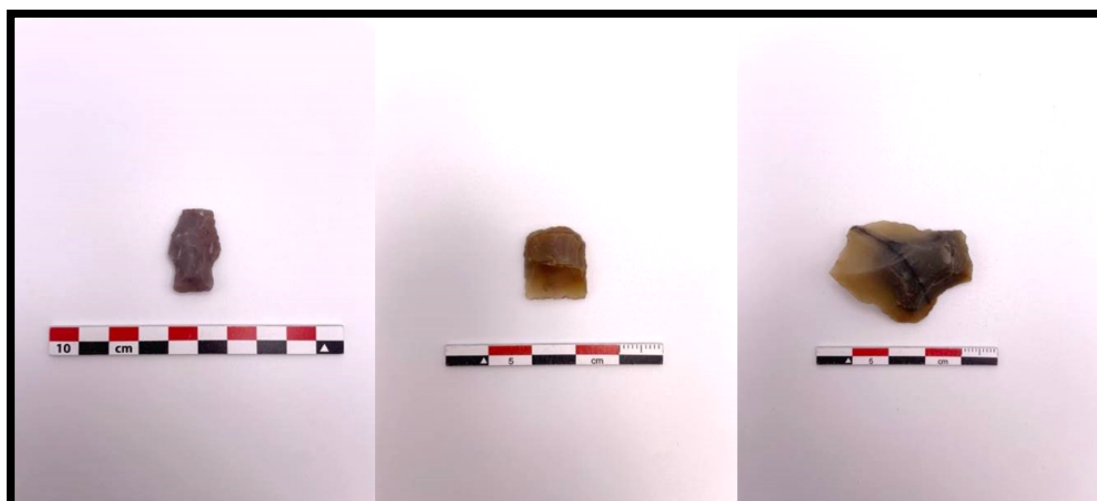


Figure 4.17 Novaculite projectile point (left) and chert gun flints (center and right)

Area 1 contains 14 chipped stone artifacts. Three of the gun flints came from Area 1. Area 2 had a total of 55 lithic artifacts in which there were two-gun flints, one biface, one pitted stone, one hafted biface, and one point identified as San Patrice by Schambach. The lithic material does not offer much help in dating the site or determining the use of each area. According to Schambach’s notes much of the lithic material, save the gun flints, were found below the European levels at around 30-40 cm below surface. The gun flints are an artifact that one would expect to find on site from the nineteenth century that maintained a military presence.

Table 4.18 Chipped Stone by Location, Count, and Weight

Location	Count	Weight in Grams
Area 1	14	14.5
Area 2	55	520.1
Feature 1	1	11.3
Surface	0	0
Total	70	545.9

Perry Plunkett Collection

As mentioned above Schambach stated the Plunkett collection is made up of 140 artifacts. Most of the artifacts are metal with a few ceramics. Only the images of this collection are available for review for this thesis. There are a total of 165 images, and it is sometimes difficult to discern which images are repeated artifacts from different angles; therefore, I did not attempt to place artifacts in possible use groups. Below is a general description of the Plunkett collection.

First, there are a number of what appear to be brass buttons with military insignia, which McCrocklin dates in his 1991 report to be between 1811-1816. Next, there is at least one knife that appears to have a bone handle still attached. There is also what appears to be a spoon photographed from several angles or there are multiple spoons. One item of note is a Spanish Real and a silver “bit” piece most likely cut to make change. The coin says “Dei Gratia – 1801 – Carolus – IIII” and features a bust. Other artifacts include belt buckles, a number of lead musket balls, and at least one lead bullet. McCrocklin (1991) reported a few hand forged tools as well as a number of horse trappings such as an iron stirrup and bridle bit with ornate cheek plates. The remainder of the artifacts cannot be identified from photographs.

The Plunkett collection remains an important part of the 3MI266 artifact assemblage even though it has no provenience. The fact that these artifacts were found in or around the areas of excavation confirms there was a early 19th century military presence, which has been documented in written records of the fort, and gives a fuller picture as to who might have inhabited 3MI266.

Arkansas Post (3AR47) Artifact Assemblage Comparison

This section looks briefly at the findings of archaeological excavations completed at Arkansas Post (3AR47) in 1971 by students and faculty from the University of Arkansas and the Arkansas Archeological Survey. Notably, the excavations at Arkansas Post did not include the Arkansas Post Factory but instead a commercial trading house operated by Jacob Bright from 1804-1807, as well as a tavern run by William Montgomery from 1819-1821 (Martin 1977). The excavations at Arkansas Post were much more extensive than those conducted at 3MI266, therefore, the artifact assemblage is much larger and much better documented. The goal here is a high-level comparison of the artifact assemblages from 3AR47 and 3MI266 to ascertain whether there are any notable similarities or significant differences.

The Arkansas Post was a significant European establishment in present-day Arkansas. Henri de Tonti established the first trading post in 1686 at the confluence of the White, Arkansas, and Mississippi rivers (Polechla 1987). The Arkansas Post grew into a trading community and developed into a governmental, military, and trading headquarters for each the French, Spanish, and the United States. The United States government founded a factory at Arkansas Post in 1805. The factory stayed in business until 1810.

3AR47 Test Implications

The purpose of the archaeological excavations at Arkansas Post was to confirm or refute documentary research conducted by Edwin C. Bearss and archaeological research by John Walker that asserted the site in question was Jacob Bright's trading

house and, later, William Montgomery's tavern (Martin 1977). To test the assertions made by Bearss and Walker, Martin lays out several test implications: (i) the structures should be constructed in the French style, (ii) a palisade-type fence should be present, (iii) the artifact assemblage should contain trade-related items, and (iv) the artifact assemblage should contain items relating to a tavern (Martin 1977).

3AR47 Findings

Martin tentatively confirmed the original hypothesis that the site 3AR47 at Arkansas Post was the location of Jacob Bright's trading house and Montgomery's Tavern (1977). For test implication (i), Martin documents that the 1971 excavations did not recover a great deal of evidence regarding buildings. Brick rubble interpreted as a chimney, large post molds, pits, and linear stains suggested a structure according to Martin (1977). Martin goes on to assert, however, that it is plausible the data represented French colonial architecture style (1977). Test implication (ii) was confirmed by evidence of trenches that fully enclosed one area of the site and partially enclosed another, as well as evidence that characterized the rebuilding of the palisade (Martin 1977). For text implication (iii) Martin first listed the types of goods that would have been traded in quantity if this site were the location of Jacob Bright's trading house. Some of the items were perishable and therefore were not expected to be found. Nonperishable items that were recovered included: beads, nails, lead, flints, knives of various sorts, scissors, thimbles, buttons of varying material, ceramics, pipes, rifle parts, bridles, spurs, hinges, door locks, brass tacks, mirrors, and wampum (Martin 1977). With the identification and presence of these artifacts Martin concluded the site

did contain indicative, trade-related items. Finally, Martin confirmed test implication (iv) with the presence of thousands of dark green wine or liquor bottle fragments, nearly 24,000 ceramic sherds, other food service artifacts (forks, knives, spoons, etc.), and faunal remains (Martin 1977). Martin asserted that the quantity and nature of the identified artifacts go beyond what one would expect in a private home but could have been derived from a business such as a tavern (1977).

3AR47 Artifact Assemblage to 3MI266 Artifact Assemblage

First, I would like to note that the Arkansas Post was established as an Arkansas state park in the 1930s and in 1965 became part of the National Park System as the Arkansas Post National Memorial (Martin 1977). As a result, the Arkansas Post has been protected and extensively studied as an archaeological site. Site 3MI266 has been privately owned and used as a commercial timber farm for decades and has been bulldozed and planted and replanted over time. Therefore, it is important to keep in mind that the artifact assemblages are in different conditions.

Martin (1977) gives an extensive list of artifacts uncovered from the 1971 excavations that took place at Arkansas Post. The Arkansas Post excavation unearthed tens-of-thousands of artifacts whereas the excavations at site 3MI266 uncovered a total of 3,483 artifacts. However, though there is a great difference in number there does not appear to be a significant difference in types of artifacts. The artifacts will be compared in this order: ceramics, glass, metal, other artifacts, and chipped stone.

3AR47 and 3MI266 Ceramic Comparison

Martin classified ceramics in with the following method: Class, Group, Type, and Subtype. Classes include earthenware, stoneware, porcelain, and semiporcelain. Martin did not list any native ceramics in the 3AR47 assemblage.

Within the earthenware class Martin lists fine earthenwares: creamware and pearlware. The decorative types of creamware found at Arkansas Post are: plain, hand-painted, relief-edged, transfer print, and banded. The painted examples include the colors blue, green, brown, and red. Martin states the design on creamware was not complete enough to be determined. Relief-edged creamware is found in royal pattern and shell-edged. The shell-edged creamware was painted green. Green and blue are the standard colors for shell-edge decoration, though there are no examples of blue shell-edged creamware in the 3AR47 assemblage. The transfer print creamware is found in black, red, and purple. The banded decoration referred to by Martin is classified as dipped in this thesis. Martin notes examples of “checker and zig-zag patterns, marbling of colors, and a dendritic effect” (Martin 1977). It is difficult to tell how the checkered and zig-zag patterns and marbling examples would be classified in this thesis as that is all the description given and the figures are in black and white. However, a dendritic pattern is a classic marker of what is described in this thesis as mocha. Creamware was found in small number at 3MI266 and are decorated with molded sprig patterns without any other decoration.

Pearlware at 3AR47 is found in the following decorative types: plain, painted, shell-edged, transferware, banded, relief decorated, and sponged. Hand-painted examples of pearlware at Arkansas Post are blue and white or polychrome. The blue and

white pearlware is described as floral patterns and blue band at the rim. The polychrome painted decoration is also floral and the colors described are: orange, brown, green, and blue. From this description the painted polychrome pearlware most likely matches what was described above as early polychrome. Early polychrome exhibits warm colors with little to no blue. Shell-edged examples of pearlware exhibit a scalloped edge and what this thesis identifies as impressed design around the rim. The colors on the edge ware are blue and green. The transferware is printed in a variety of colors: blue, red, black, green, purple, brown, and polychrome. There is no description of the type of banded or dipped decoration for pearlware. The relief-decorated or embossed pearlware examples are decorated with simple ribs, flutes, or floral sprigs. The pearlware decorative examples at 3MI266 are dipped, shell-edge, hand-painted, transfer print, and undecorated. There are some examples of pearlware in the 3MI266 assemblage Martin would identify as relief-decorated. This thesis describes those ceramics as molded.

Stoneware at 3AR47 is decorated with either alkaline glaze or salt glaze. The stoneware from 3MI266 is either unglazed or salt glazed on the exterior and one sherd salt glazed on the interior and exterior. There are no examples of alkaline glaze at 3MI266.

Martin's final class of ceramics is porcelain. There are no examples of porcelain of the type Martin describes at 3MI266.

Martin (1977) does not use the whiteware classification for fine-earthenwares. While creamware and pearlware are limited in number at 3MI266 the decorative styles

described by Martin are not. All of the decorative types described by Martin, except sponged, are present at 3MI266. There are numerous examples of painted ceramics at 3MI266. Martin does not describe examples of hand-painted with chrome colors or sprigware, which are both later painted decoration types found in the Sulphur Fork Factory assemblage. He does describe early polychrome examples as well as cobalt floral examples both of which are present at 3MI266. Shell-edge decoration in blue and green are found in relatively large number at 3MI266. Transfer print makes up a majority of the decorated ceramics in the 3MI266 assemblage. The colors include dark blue, medium blue, light blue, purple, lavender, green, brown, black, red, and teal. Martin does not make a distinction in blue transferware. Lavender is not mentioned but may have been lumped in with purple, and teal is not mentioned as a transferware color. Dipped or banded ware, as Martin calls it, are present in both assemblages. The language used for dipped wares differs between Martin's work and this thesis and therefore without seeing the ceramics in person or in clear, colored photographs I cannot make comparisons. Martin does, however, reference the dendritic pattern that is a tell-tale sign of mocha dipped wares.

3AR47 and 3MI266 Glass Comparison

Martin defines five categories for glass: beads, bottles, bottle seals, tableware, and miscellaneous. Glass artifacts are found in abundance at 3AR47. When one considers that one of the goals of the 1971 excavations was to uncover a tavern, then the amount of glass artifacts is to be expected or, at least, anticipated. In contrast, glass artifacts at 3MI266 make up only 11.05 percent of the total artifact assemblage.

The 3AR47 excavations recovered a total of 31 beads. Martin classifies the beads using Kidd and Kidd typology and gives 22 categories of beads. This thesis is more of a preliminary examination of 3MI266 and, accordingly, the bead artifacts are not classified in such detail. Therefore, the comparison will be quite simple. The 3AR47 bead assemblage exhibits more variety both in style of bead and in color when compared to the beads in the 3MI266 assemblage. The 3AR47 beads do show some similarities to the 3MI266 beads. Similar colors include: blue, black, white, red, yellow, and clear. There are also similarities in shape, both sites have what are called seed beads that have a doughnut shape. The more decorated beads are wound, leaving spiral impressions in the glass. Considering the total size of each artifact assemblage it is interesting that the number of beads found at each respective site is so close in number.

As mentioned above, site 3MI266 was bulldozed just a few years prior to the excavations. This possibly explains the highly fragmented state of the glass ceramics. The state of glass artifacts at 3MI266 made it difficult to discern even the simplest category such as basic types or container type. While the 3AR47 excavation was able to recover whole, nearly whole bottles, bottle seals, and identifiable tableware. Therefore, for comparison purposes, I am only able to point out basic similarities. In the bottle glass section Martin breaks down bottle glass by color: brown, colorless-pale blue/green, and dark green. Because color of glass artifacts was one of the only categories that could be determined with certainty in the 3MI266 glass assemblage color is broken down in more detail. These colors include aqua, light aqua, black olive, dark olive, olive, black amber,

amber, green, and colorless. The colorless-pale blue/green described by Martin may be similar to what is referred to at 3MI266 as aqua.

The 3AR47 excavations recovered 15 bottle seals. Seals identify the contents and manufacturer location. There is one glass artifact from 3MI266 that may be described as a seal, though it is incomplete. The marking reads "CHAT...". None of the bottle seals at 3AR47 have this same marking.

The tableware glass at 3AR47 consists of stemmed and unstemmed drinking vessels with a total of 332. There is one discernable glass drinking vessel in the 3MI266 assemblage – the base of a lead glass tumbler. Also present in the 3MI266 glass assemblage are two dish fragments that are molded and pressed. Martin makes no mention of pressed or molded glass dishware at Arkansas Post.

3AR47 and 3MI266 Metal Comparison

Martin (1977) classifies metal artifacts by type rather than the metal catchall that is presented in this thesis. Given the number of metal artifacts at 3AR47 this is not surprising. This section will cover similar items found at both 3AR47 and 3MI266, and it is organized by the metal use groups introduced above – architecture, kitchen, clothing and personal, and arms. Because the Plunkett collection consists of mostly metal artifacts, this collection will also be considered in this section. As stated above, the artifact photographs of the Plunkett collection were difficult to distinguish, therefore, I will be using a list provided by McCrocklin in his 1990 paper on 3MI266.

Artifacts classified as architecture are the most abundant in both the 3AR47 and 3MI266 metal assemblages. Architectural artifacts recovered at 3AR47 consists of a bolt,

hinges, keys, a keyhole plate, a latch, locks, nails, pintles, spikes, and staples. Of these artifacts nails and keys were found at 3MI266. Nails being the most numerous at each site.

In the kitchen use group category, the artifacts recovered at 3AR47 are a coffee grinder, forks, knives, spoons, and utensil handles. Similar items at 3MI266 are spoons and utensil handles. A knife with a bone handle is present in the Plunkett collection. Iron kettle fragments were also recovered at 3MI266. Considering that 3AR47 is the site of a tavern one might expect to find more metal kitchen items; however, because these items are less prone to breaking it is possible that the occupants kept these items when they moved on from Arkansas Post, and the same can be said for 3MI266.

Artifacts in the personal and clothing use group category are more abundant at 3AR27. The number and variety of buttons recovered at 3AR47 far exceed those found at 3MI266. A total of 84 buttons in a range of materials – bone, porcelain, white metal, glass, brass, and iron – are in the 3AR47 artifact assemblage. A number of the brass buttons include military insignia and date from 1800 to 1820. This timeline fits the military buttons found at 3MI266, most of which are in the Plunkett collection. Buckles, jewelry, a Jew harp, pipes, scissors, thimbles, a fish hook, and hawk bell were also uncovered at 3AR47. Similar items, such as a brass pipe and scissors, are included among the 3MI266 assemblage. Buckles, jewelry, and thimbles are listed in McCrocklin's 1990 paper but were not found among the artifacts when analysis took place. The whereabouts of these items is unknown.

There are similarities in the arms category from both sites. However, much of these artifacts from 3MI266 are in the Plunkett collection. These items, according to McCrocklin, are rifle flint lock cock, flash pans, springs, trade gun fusil-size flint locks, a brass trigger guard, and a screw type musket ball extractor or “worm”, and a number of musket and rifle balls. Present in the artifact assemblage analyzed for this thesis are a thumb guard, main spring, a guard piece from a sword, lead ammunitions, and brass percussion caps. Items listed in the 3AR47 assemblage are a frizzen, hammer, side plate, lock plate, barrel, thumb plate, patchbox lid, and lead shot. Firearm parts are expected at both sites, not only due to the military presence but because guns and ammunitions were trade items.

In the other category items at 3AR47 were found a Spanish colonial peso, heel plates, and a bridle bit. In the Plunkett collection there are two whole Spanish coins and one “bit”. Until 1857 Spanish coins were legal tender in the U.S. and therefore it is not unusual to find these coins on sites from the early nineteenth century (Martin 1977). Other items in the Plunkett collection include horse trappings, ornate brass rosettes, a stirrup, a bridle bit, and hand forged tools. As previously mentioned, Plunkett was particularly interested in metal artifacts. A single horse bit was present in the assemblage analyzed for this thesis.

3AR47 and 3MI266 Other Artifacts Comparison

The other artifacts comparison is brief as the only two elements in each are faunal remains and botanical remains. Martin’s work did not systematically analyze the faunal remains. Neither did this thesis. Therefore, it is difficult to make any

comparisons. Though, Martin notes that the faunal remains are food animals and are both wild and domestic. Martin does not give an indication of how many faunal remains were recovered. The floral remains at 3AR47 are wood samples. There are no wood samples in the 3MI266 assemblage and once again comparisons cannot be made.

3AR47 and 3MI266 Chipped Stone Comparison

The only chipped stone artifacts mentioned at site 3AR47 are gunflints. A total of 118 gunflints were uncovered at 3AR47. A total of five gunflints were found at site 3MI266. Martin (1977) organized the gunflints by material used and basic techniques of manufacture. Martin identified flint and chert materials and identified the manufacturing methods as French blade, blade-spall, spall, and English blade. Gunflints at 3MI266 are organized by material type only. Four of the gunflints at 3MI266 are chert and one is novaculite.

3AR47 and 3MI266 Overall Comparison

Site 3MI266 has later ceramic decorative types such as later colors of transferware, hand painted wares, and dipped wares that do not occur at the Arkansas Post site. The artifacts are more abundant at the Arkansas Post site presumably because this was central trading hub with diverse groups of people coming and going. Site 3MI266, the Sulphur Fork Factory, was much more secluded which few people visited. The Arkansas Post site was excavated to a much greater extent than the Sulphur Fork Factory site and explains why such an abundance of artifacts were collected. Based on the evidence presented by Martin (1977) and the evidence compiled for this thesis, the

two sites appear contemporaneous and both represented areas of trade with a military presence.

Conclusion

This chapter outlines the methods of analysis, analysis of artifacts, results of analysis, and provides a discussion of the results. In addition, this chapter offers a comparison between Arkansas Post site 3AR47 and 3MI266. At the outset, this chapter endeavored to answer a few basic questions about site 3MI266. These questions include: is this the site of the Sulphur Fork Factory? When and how long was the site occupied? And what were the two areas excavated and how do they relate to each other?

With the evidence provided, I am inclined to say that site 3MI266 is very likely the location of the Sulphur Fork Factory. A combination of factors led to this interpretation. When the evidence present is taken as a whole – the historical documentation of the Sulphur Fork Factory, the chronology established through examination of the artifact assemblage, the Perry Plunkett collection, and the comparable artifact assemblage at 3AR47 – there is a strong indication that site 3MI266 was the site of a trading house with a military presence.

The chronology established by ceramic analysis suggest an occupation period of less than 100 years. The early colonial ceramics were most likely brought by Fowler from Natchitoches and the neoclassical edge ware fits the factory occupation time frame.

The metal artifacts, specifically the buttons with military insignia, demonstrate a military presence. Therefore, I conclude that 3MI266 was occupied for a time by

Americans, specifically American military. The indigenous peoples who may have visited the site are unknown at this time. The historical documentation available did not go into specifics about those visiting the factory. It would be prudent to search the National Archives for more information regarding the Sulphur Fork Factory because what may seem important to one researcher may be disregarded completely by another.

The two areas excavated appear to have contemporaneous occupations. However, I was unable to establish what the areas were used for and how they might be related. Area 1 certainly contains many items associated with food consumption. Though this area could have been a disposal area for 3MI266 occupants. The lack of trash items in Area 2 may suggest living quarters of some kind. However, we know there were five buildings in the Sulphur Fork Factory complex and, therefore, it could also have been a storage area. Again, it would be useful to revisit the original historical documents to determine if Fowler or others left any record of the complex building layout. Further survey of site 3MI266 would also be useful in order to determine if there are, in fact, other buildings at the site.

With all of this in mind I am comfortable labeling site 3MI266 as the Sulphur Fork Factory. The military presence, the evidence of trade goods, and the period of occupation each and all support this conclusion. Notably, there are still many unanswered questions and key blanks left to be filled. That being said, the task of filling in the blanks is not out of reach, requiring only time, resources, and a diligent group of researchers. I advocate that all avenues be pursued because site 3MI266 is important to

the citizens of Miller County, Arkansas as well as to Arkansas history. It is worth the effort.

Chapter 5

Conclusion

The purpose of this thesis is to tell the story of the Sulphur Fork Factory by providing a detailed archaeological analysis of the site and its material, and to wrap it in a historical examination of the United States Indian Factory System and, more specifically, the Sulphur Fork Factory itself. The Sulphur Fork Factory, located in Miller County of southwest Arkansas, was one of the thirty-one factories established and maintained by the United States government between 1795 and 1822. The exact location of the Sulphur Fork Factory was unknown until 1988 when avocational archaeologist Claude McCrocklin set out to locate and identify it. During his search, McCrocklin located historical site 3MI266, which is believed to be the Sulphur Fork Factory.

In this final chapter I discuss the research questions this thesis sought to answer, provide a simple restatement of the methods of analysis used to answer these questions, and examine what answers came to light. I also explain the relevance of this research to the state of Arkansas and more broadly to our understanding of the role factories played in early U.S. history. Lastly, I conclude this chapter with my final thoughts on the Sulphur Fork Factory and suggestions for future research that may add to our understanding of the Sulphur Fork Factory and the United States Indian Factory System as a whole.

Questions, Methods of Analysis, and Answers

The intent of this thesis has been to: (i) confirm that site 3MI266 is, in fact, the Sulphur Fork Factory, (ii) determine how many occupations may have occurred at the site and over what period of time, and (iii) determine the use of the two areas excavated and how these two areas might be related.

With these questions in mind, I proceeded with an analysis of the 3MI266 artifact assemblage. It is important to reemphasize that this is the first time this artifact assemblage has been analyzed; therefore, the methods of analysis sought basic but important, and previously unknown, information regarding 3MI266.

In Chapter Two I provided a detailed historical and theoretical background of the United States Indian Factory System and of the Sulphur Fork Factory. This background information was important to the analysis of the 3MI266 artifact assemblage because it provided context and perspective necessary to the overall interpretation of the site. Chapter 3 detailed the archaeological excavations. It explains how those excavating 3MI266 for the first time interpreted what they uncovered. Chapter 3 also sheds light on why the two areas were chosen for excavation, placing another piece of the puzzle and facilitating a better understanding of 3MI266. Finally, Chapter 4 recounts the methods of analysis used to interpret the 3MI266 artifact assemblage. Chapter 4 provides vital information illuminating the extent and basic chronology of the site's occupation.

When all of this information is viewed as a whole a picture of 3MI266 begins to take shape and the colors become a little more vibrant. From a historical perspective we have only John Fowler's personal account of the number of buildings at the Sulphur Fork

Factory and how and with what they were constructed. The historical records also tell us what kind of material culture to expect at a factory site. From the archaeological excavations we know that there were two chimney falls denoting at least two buildings. And based on the location of the two excavated areas we know the buildings were separate. The methods of analysis tell us that Area 1 and Area 2 were not only separate from each other, but that they were used in fundamentally different ways. The density maps show artifact types such as metal personal items, ammunitions, and architectural artifacts occur more frequently in Area 2 while kitchen items, ceramics, and faunal remains occur more frequently in Area 1. Ceramic analysis examined the different types of ceramics found at 3MI266 and, importantly, showed that the type of ceramic combined with decorative methods and motifs used on the ceramics could be used to establish a chronology of the site's occupation.

With the above information we can begin to answer the proposed questions of this thesis. Question (iii) asks what are the buildings that were excavated and how do they relate to each other. The historical accounts of the buildings at the Sulphur Fork Factory describe a factory store, a skin house, a cookhouse, and two cabins one of which was used as guard house. Using the above findings, we can conclude that the buildings do not seem to be related in terms of use. It appears the building excavated in Area 1 was possibly used for activities revolving around food, such as, food consumption, food preparation, and/or food disposal. The building in Area 2 does not appear to have been a place where food was consumed and does not have a determinable use at this time. Claude McCrocklin interpreted the Area 2 building as a guard house and he could be

correct. However, the information available includes no conclusive evidence telling us how and for what the building was actually used.

Question (ii) relates to the number of occupations the site might have had and over what period. We know from historical records and artifact assemblage that from 1817 to 1825 the site was occupied by government appointed factors, members of the military, and one licensed trader. After 1825 there is no historical record and no archaeological indication regarding who might have occupied the site, only that it was occupied. The ceramic chronology established in chapter 4 clearly shows an occupation that spanned around 100 years. It can be speculated that the abandoned buildings were taken over by individuals moving into the area as the U.S. continued its westward expansion. It is not determinable, however, who these people were. All we can say definitively is that they had access to contemporary European goods and made use of the buildings at 3MI266.

Finally, question (i) asks whether site 3MI266 is, in fact, the Sulphur Fork Factory. When the historical background, archaeological assemblage, and McCrocklin's detailed search are taken into account and read together it is very likely that site 3MI266 is the Sulphur Fork Factory. Therefore, McCrocklin's initial exclamation that "the search is over!" was, in fact, correct.

Relevance of Site 3MI266

Site 3MI266 is relevant to both Arkansas and United States history. Research regarding the fur trade is legion and it is well documented both historically and archaeologically in most parts of the United States. However, historical and

archaeological research regarding the United States Indian Factory System is sadly lacking. The factory system put in place by an act of Congress in 1795 was one of the U.S. governments earliest legislative acts. And the factory system served as one of the chief policy tools for fostering relations with Native Americans, directing foreign policy, and promoting westward expansion. It also marks an early effort by the U.S. to force native assimilation into the American way of life and, therefore, can be regarded as a means of cultural imperialism. With the end goal being the erasure of native culture and, perhaps, native peoples. By studying the United States Indian Factory System and its various trading posts, we add still more color to the story of the fur trade and we unlock one of the earliest policy initiatives and policy tools of the early U.S. government. This effort begins to tighten up or close the gaps in an important historical and archaeological record.

Because site 3MI266 is located in Arkansas it holds particular relevance for the state. There were only thirty-one factories established by the U.S. government over a twenty-seven-year period, and three of those factories were in the state of Arkansas. Arkansas Post (1805-1810), Spadre Bayou (1817-1822), and Sulphur Fork (1817-1822) have each been overlooked historically and archaeologically as it relates to the government sanctioned factory system. This thesis represents the first analysis of one of the Arkansas factories.

Future Research

The historical and archaeological work regarding the United States Indian Factory System is thin to say the least, and more can and should be done to rectify this reality.

However, in this section focus is placed on future research that could be accomplished at or with 3MI266. Due to Covid 19 I was limited in my ability to travel and access historical documents relating to the factory system generally and the Sulphur Fork Factory in particular. John Fowler wrote many letters referencing Sulphur Fork and these letters, as well as transactional ledgers, are housed in the National Archives. Accessing these documents and interpreting them from an anthropological and archaeological perspective may bring new insights to the Sulphur Fork Factory. For example, Foster and Boehm's (2013) paper on the Muscogee Creek fur trade with Fort Wilkinson factory in Georgia used historical ledgers to analyze economic transactions made at the factory with known nineteenth century Muscogee Creek archaeological assemblages. A similar type of historical record study and comparison could open up a myriad of new research and new insights into the Sulphur Fork Factory.

As mentioned in previous chapters, Perry Plunkett's collection of artifacts, maps, and notes were not available for study for this thesis. It would be beneficial to the archaeology of 3MI266 if these items could be located and studied. Examination of these additional items might offer further evidence that site 3MI266 is the location of the Sulphur Fork Factory, as well as, give new information about the site. For example, knowing where on the site the Plunkett artifacts originated could possibly answer questions regarding the Sulphur Fork complex layout and give further indications on the use of the specific buildings and who might have been present at the site.

In addition to further study of the historical record more archaeological study is crucial to understanding site 3MI266. A new survey of the area along with geophysical

study could help determine if other buildings can be located. If other buildings are located new test units and screening for archaeological material would be needed. In addition to new test units revisiting Area 1 and Area 2 in which the units are screened and water screened would provide more conclusive evidence that site 3MI266 is Sulphur Fork and give a better understanding of how the areas were used. However, this is an active timber farm and accessibility may be an issue. It would be worth the time to speak with the timber company to determine if they would be open to no longer planting and thinning the area leading to further destruction of 3MI266.

Concluding Thoughts

The purpose of this thesis is to give the first concise overview of the Sulphur Fork Factory using historical documentation and archaeological analysis of the 3MI266 assemblage. This thesis is a preliminary study demonstrating that site 3MI266 has much more to share in terms of historical and archaeological importance. The historical and archaeological research on factory store sites in the southeastern United States is extremely limited. This thesis inches forward in an effort to document the factory's historical role in the region. The factory system was a keystone domestic policy of a still infant U.S. government. Part trade, part foreign policy, part expansionist ideology, the factory system was among the earliest legislated acts governing relations with native peoples. This examination only scratches the surface of this important history, but it is an important step forward for this site and it contributes to our understanding of the broader factory system. More work remains.

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